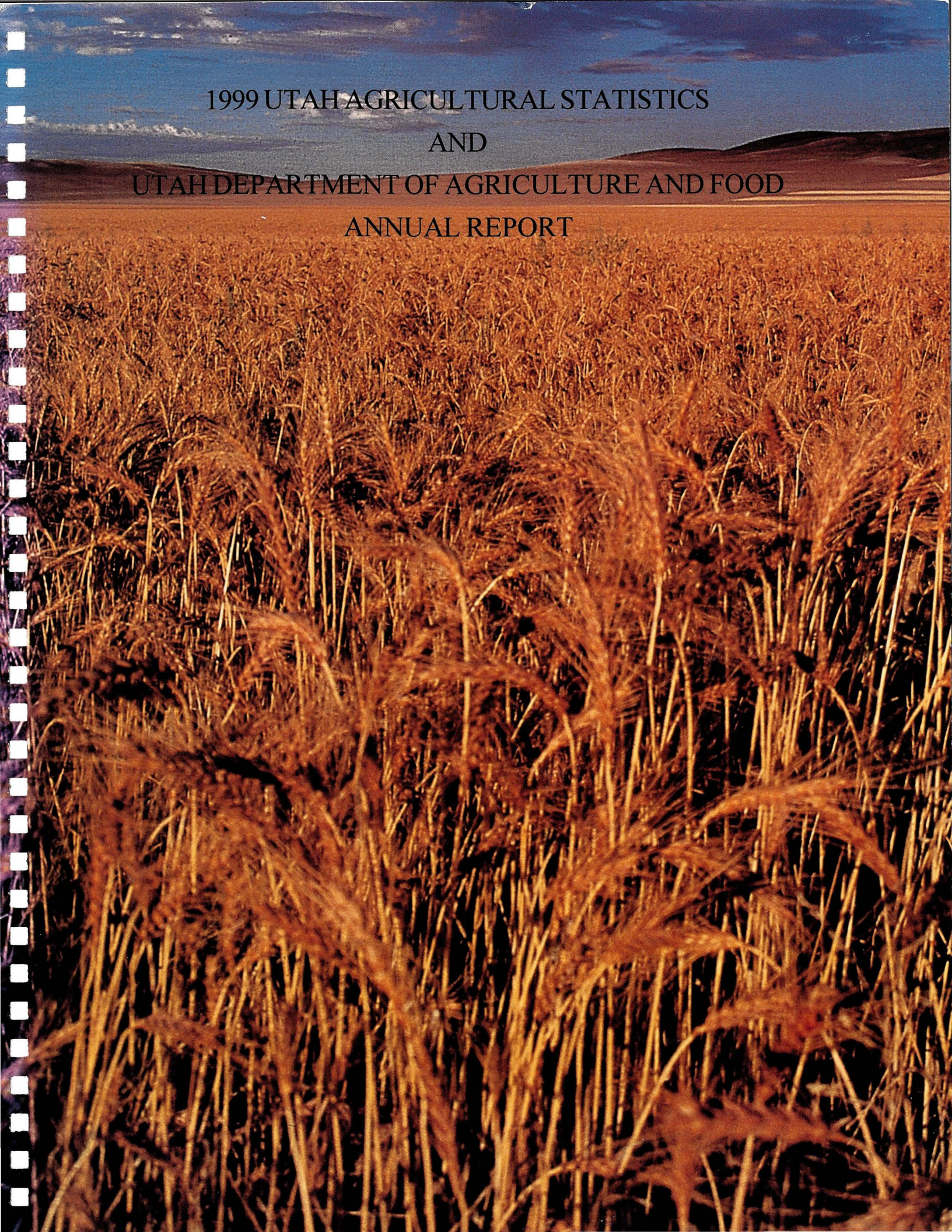
# 1999 UTAH AGRICULTURAL STATISTICS
# AND
# UTAH DEPARTMENT OF AGRICULTURE AND FOOD
# ANNUAL REPORT



*Michael O. Leavitt,*
*Governor,*
*State of Utah*

Dear friends of agriculture,

I am again happy to report to you on a few of the strides taken by Utah Agriculture this year.

Among the bright spots was Commissioner Cary Peterson's leadership in several national agricultural issues. Cary serves as President of the National Association of State Departments of Agriculture (NASDA), and from this position he worked to reduce unfair trade barriers that hinder Utah and American agriculture.

As NASDA President, Cary traveled to several Asian countries to help open new markets to American agribusinesses. Such visits have contributed to Utah's astounding increase in exports of raw and processed agricultural products. Utah's export sales soared nearly 1,000 percent from 1990 to 1998, the largest increase of any Utah industry.

New food safety and quality assurance regulations are in place for our fast growing state. These new regulations result in greater efficiencies and improved quality control over the foods we eat.

This year I appointed Cary to the newly formed Quality Growth Commission, which will help Utah protect its open lands as we maneuver through the challenges of our unprecedented growth. His leadership and knowledge of agricultural issues will be vital to the success of the Commission.

Utah agriculture also continues to add to our state's quality education. The Agriculture In The Classroom program (AITC) teaches thousands of children valuable lessons about their food and the farm. The program teaches our teachers how to present fun and educational lessons about Utah agriculture. AITC brings its message about agriculture's future to more than 250 teachers and 350,000 students each year through workshops and presentations.

As we approach that magical milestone year 2,000, I am proud to look back on agriculture's past, and I'm excited about the opportunities that lie ahead.

Sincerely,

Michael O. Leavitt

Michael O. Leavitt, Governor
State of Utah

# Introduction

This publication is provided to help inform farmers, ranchers, and the public about activities within the Utah Department of Agriculture and Food, and provide a detailed look at Utah's agricultural production. Weather data for 1998 and normal are included in the publication. Weather data for 1998 and normal are included in the publication. Also included are budgets for helping farmers and ranchers evaluate the potential profitability of various agricultural commodities produced in the State.

The Utah Agricultural Statistics Service of USDA's National Agricultural Statistics Service (NASS) and the Utah Department of Agriculture and Food have jointly prepared this publication for the past 29 years. Estimates presented in the publication are current for 1998 production, and January 1, 1999 inventories. Data users that need 1999 information or additional historic data should contact the Utah Agricultural Statistics Service, phone 524-5003 or 1-800-747-8522 if outside the Salt Lake calling area. Statistics for other States and the United States are also available at the office or on the NASS Web page at http://www.usda.gov/nass/.

The agricultural statistics in this publication are the result of farmers, ranchers, and agribusinesses responding to various survey questionnaires during the year. Information they provided about their individual operations is confidential and used only in combination with other reports. A special thanks for their voluntary contribution to help make the estimates possible. Our NASDA enumerators offer a special thanks to Utah's farmers and ranchers for their patients and dedication and for answering all those questions.

Estimates are subject to revision back to 1993 and may have been revised in this publication due to the release of the 1997 Census of Agriculture. Data users should use this publication for previous years data.

Information and statistics are an important part of decision making for farmers and ranchers. The internet has provided a tool to disperse a variety of information in a easily accessible timely manner. I found the following Web page sources of interest to agriculture and thought you might be interested in them.

| ***Organization*** | ***Web Page Address*** |
|---|---|
| U. S. Department of Agriculture (Includes all USDA Agencies) | http://www.usda.gov/ |
| National Agricultural Statistics Service (Plus Census of Agriculture) | http://www.usda.gov/nass/ |
| Utah Agricultural Statistics Service | http://www.nass.usda.gov/ut/ |
| USDA Market News | http://www.usda.gov/ams/sermrknw.htm |
| USDA-Natural Resources Conservation Service (Includes Utah Snow Surveys and water supply) | http://utdmp.utsnow.nrcs.usda.gov |
| Fedstats (Statistics from Federal Agencies) | http://www.fedstats.gov/ |
| The Federal Register | http://www.nara.gov/fedreg/index.html |
| Agriculture Sources | http://www.agsource.com/ |
| Utah Department of Agriculture and Food | http://www.ag.state.ut.us/ |
| Utah Department of Agriculture and Food - Market Reports | http://www.ag.state.ut.us/mn_main.ssi/ |
| National Association of State Departments of Agriculture (NASDA) | http://www.nasda-hq.org |
| Salt Lake City National Weather Service | http://nimbo.wrh.noaa.gov/saltlake/ |
| Western Regional Climate Center | http://wrcc.sage.dri.edu/ |
| Utah Climate Center | http://climate.usu.edu/ |
| USU Extension Service | http://est.usu.edu/ |
| Utah Agriculture in the Classroom | http://ext.usu.edu/aitc/ |
| National Farmers Union | http://www.nfu.org/ |
| Utah Farm Bureau | http://www.fb.com/utfb/ |
| National Cattlemen's Association | http://www.beef.org/ |
| American Sheep Industry Association, Inc. | http://www.sheepusa.org |
| National Dairy Council | http://www.familyfoodzone.com |
| National Dairy Database | http://www.inform.umd.edu/edres/topic/agrenv/ndd |



DelRoy J. Gneiting, State Statistician
Utah Agricultural Statistics Service

# *1999 UTAH AGRICULTURAL STATISTICS AND UTAH DEPARTMENT OF AGRICULTURE AND FOOD ANNUAL REPORT*


prepared by

## *Utah Agricultural Statistics Service*

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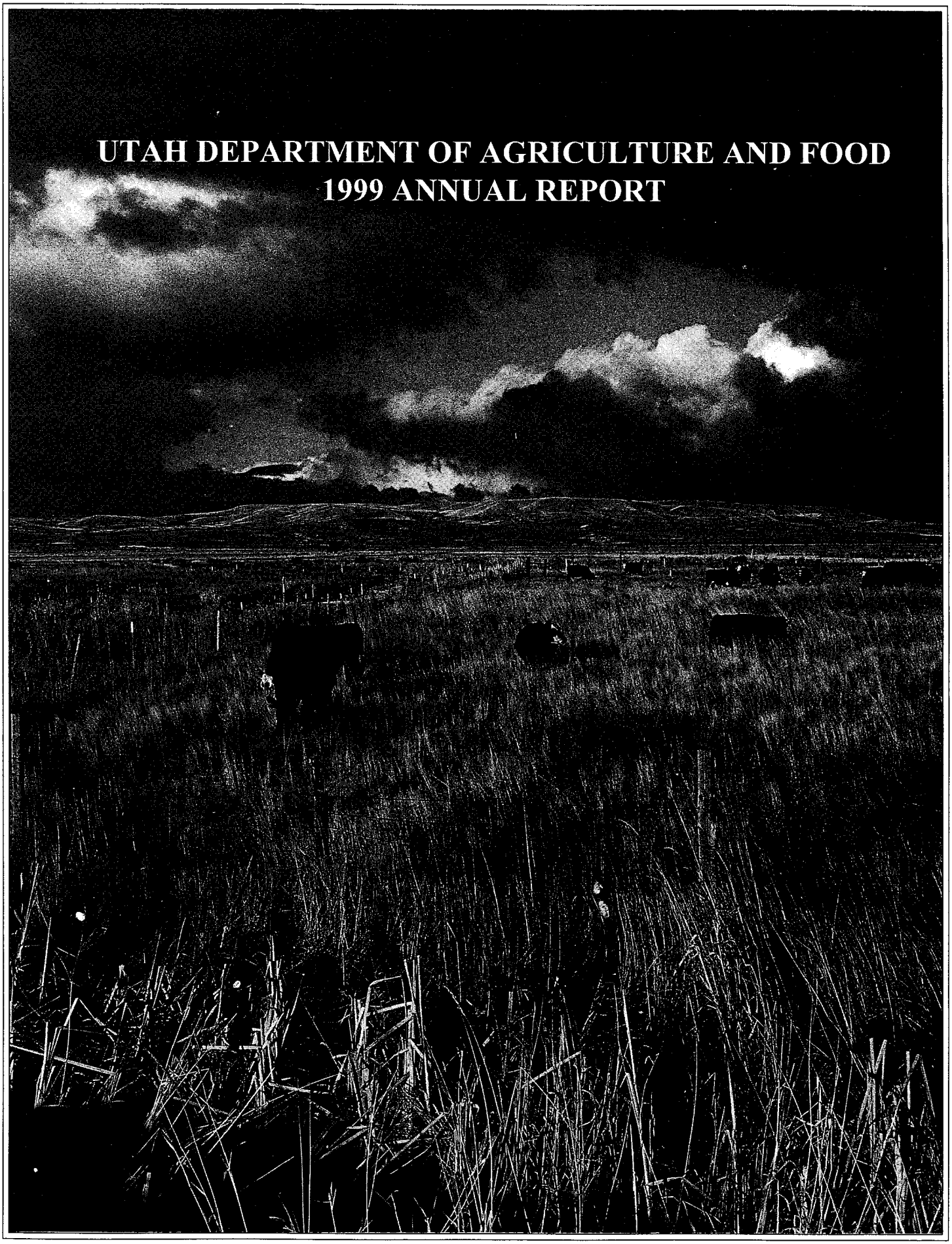
Ron Bosecker, Acting Deputy Administrator for Field Operations



We would like to thank Ron Daines, editor, Western Farmer-Stockman Magazine for providing the cover picture; Debra Spielmaker, Utah Agriculture in the Classroom; and Jack Wilbur and Randy Parker, Utah Department of Agriculture and Food, for providing some of the photographs used in this publication.

# Table of Contents

# UTAH DEPARTMENT OF AGRICULTURE AND FOOD
# 1999 ANNUAL REPORT



# Utah Department of Agriculture and Food

## Administration

Cary G. Peterson
Commissioner

Van Burgess
Deputy Commissioner

Renee Matsuura
Director of Administrative Services

Randy Parker
Director of Agricultural Marketing and Conservation

Dr. Michael R. Marshall
Director of Animal Industry/State Veterinarian

Dr. David H. Clark
Director of Laboratory Services/State Chemist

G. Richard Wilson
Director of Plant Industry

Kyle R. Stephens
Director of Regulatory Services

Larry Lewis
Public Information Officer

Eileen Frisbey
Administrative Assistant

Joan Winger
Administrative Secretary

## Agricultural Advisory Board

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Utah Farm Bureau Federation

Arthur Douglas, Vice Chairman
Utah Farmers Union

Bob Brown, Utah Dairymens Association

Jerry Peterson, Utah Wool Growers Association

Mike Spencer, Utah Cattlemens Association

George Dyches, Food Processing Industry

Merl Thurgood, Utah Horse Industry

Utah Association of Conservation Districts

Grant Tingey, Utah Livestock Marketing Association

Carma Wadley, Consumers' Representative

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- Deputy Commissioner.....538-7102
- Compliance Specialist.....538-7141
- Public Information Officer.....538-7104
- Administrative Assistant.....538-7105

Administrative Services
- Director.....538-7110
- Budget and Accounting.....538-7032
- Data Processing Services.....538-7113
- GIS.....538-9904
- Personnel and Payroll.....538-7112

Agricultural Marketing and Enhancement
- Director.....538-7108
- Ag Resource Development Loans.....538-7176
- Environmental Quality.....538-7175
- Livestock & Market News.....538-7109
- Environmental Quality Information Specialist538-7098
- Soil Conservation.....538-7171

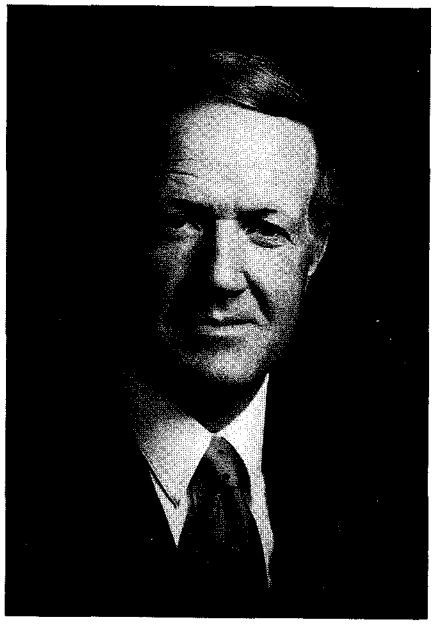
Agricultural Statistics (USDA).....524-5003
Animal Damage Control.....975-3315
Animal Industry
- Director.....538-7160
- Animal Health.....538-7162
- Animal Identification (Brands).....538-7166
- Aquaculture.....538-7029
- Elk Farming.....538-7137
- Meat Inspection.....538-7117
- Serology Laboratory.....538-7165

Chemistry Laboratory
- Director.....538-7128
- Bacteriology Laboratory.....538-7129
- Feed & Fertilizer Laboratory.....538-7134
- Meat Laboratory.....538-7132
- Pesticide Residue Laboratory.....538-7135

Plant Industry
- Director.....538-7180
- Entomology.....538-7184
- Fresh Fruit & Vegetable Inspection.....538-7183
- Seed & Feed Inspection.....538-7187
- Grain Grading Lab (Ogden UT).....392-2292
- Insect Infestation Emergency Control.....538-7180
- Noxious Weeds.....538-7183
- Pesticides/Fertilizers.....538-7188
- Seed Laboratory.....538-7182

Regulatory Services
- Director.....538-7150
- Bedding, Quilted Clothing, & Upholstered Furn.538-7151
- Dairy Compliance.....538-7145
- Egg & Poultry Compliance.....538-7148
- Food Compliance.....538-7149
- Label Evaluation.....538-7151
- Meat Compliance.....538-7144
- Metrology (measurement) Laboratory.....538-7153
- Motor Fuels Testing Laboratory.....538-7154
- Weights & Measures.....538-7158

*Commissioner of Agriculture*
*and Food*
*Cary G. Peterson*



Thank you for your interest in Utah agriculture.

As we move closer to the year 2000, I want to pause to reflect on agriculture's past successes and consider its role in our future.

We are about to celebrate 2,000 years of progress, as recorded by our culture and our calendar. But we in agriculture will be celebrating **10,000** years of progress. Agriculture, as our scholars record it, began around the year 8,000 BC with the cultivation of grain in the area we now call the Middle East. The Latin roots of the word agriculture mean "cultivation of the fields".

Back then, as it holds true today, the development of agriculture allowed us the freedom to pursue interests outside of the daily hunt for food. As food became abundant people were free to turn their talents and thoughts to other activities which lead to the basis of science, religion, government, the arts, and the foundation of modern civilization.

I wish to remind you that our future prosperity depends on how well we protect our agricultural resources. Our farmers have been so productive that it has grown easy for some people to take their work for granted.

And as we celebrate our 10,000th year in business, I ask each of you to at least once in the coming year visit your city council or county commission and support farming and ranching in any way you can. And when you visit your grocery store, seek out the locally grown foods, they're better for you and buying them helps keep our state strong.

So I encourage you to enjoy the new millennium and the opportunities it offers. But remember agriculture's link to our past and our future.

Thank you,

Cary G. Peterson, Utah
Commissioner of Agriculture and Food

# Mission Statement

The mission of the Utah Department of Agriculture and food is to insure a high-quality, safe, readily available and sustained supply of food and fiber for the citizens of the state of Utah.

In doing this, we will promote the responsible stewardship of our state's land, water and other resources through the best management practices available. We will promote the economic well-being of Utah and her rural citizens by adding value to our agricultural products. We also aggressively seek new markets for our products. And we will inform the citizens and officials of our state of our work and progress.

In carrying out that mission, department personnel will take specific steps in various areas of the state's agricultural industry, such as the following:

### Regulation

Department operations help protect public health and safety as well as agricultural markets by assuring consumers of clean, safe, wholesome, and properly labeled and measured or weighed products. This includes products inspected by UDAF's animal industry, plant industry, weights and measures, and food and dairy inspectors, compliance officers and field representatives. It involves chemical analysis by the state laboratory, which is part of the department. It also includes other consumer products such as bedding, quilted clothing and upholstered furniture.

This inspection also protects legitimate producers and processors by keeping their markets safe from poor products and careless processing.

### Conservation and Enhancement

Through its variety of programs in this area, the department will work to protect, conserve and enhance Utah's agricultural and natural resources, including water and land, and to administer two low-interest revolving loan funds aimed at developing resources and financing new enterprises.

### Marketing and Promotion

UDAF marketing section strengthens Utah's agriculture and allied industries financially by expanding present markets and developing new ones for Utah's agricultural products, locally, in the United States, and overseas as well. It also helps develop new products and production methods and promotes instate processing of Utah agricultural products for a stronger state economy.

*(above) A helicopter applies a biological insecticide in Salt Lake County's Knudsen's Corner area to combat a small infestation of gypsy moths. If left untreated the moth would eventually strip the valuable tree stands of their leaves. This treatment program and another aimed at large infestations of crickets and grasshoppers were coordinated by the Division of Plant Industry.*
*(right) Weights and Measurers Inspectors Brett Gurney and Mark Demings take part in a computer training class. The division is now using computers to more accurately enforce state code regulations that protect consumers.*

# Commissioner's Office

Expanding foreign trade, protecting agricultural resource lands, improving food safety regulations, and continued customer satisfaction were a few of the areas of focus for Commissioner Cary G. Peterson.

Commissioner Peterson was elected the 82nd president of the National Association of State Departments of Agriculture (NASDA) in the Fall, and pledged to help America's farmers and ranchers by removing unfair barriers to foreign export markets. Commissioner Peterson now heads the 82 year old association, which is one of the more influential agricultural organizations in the nation. Peterson told the association, which is made up of agriculture commissioners, secretaries and directors from the 50 states and U.S. territories, that American farmers and ranchers must continue to protect their clean water environment.

A NASDA-sponsored trade mission took the commissioner to the Republic of China (Taiwan), Hong Kong, China and the Philippines to promote American agricultural products to Asia's top grocery store food buyers. As president of NASDA, Commissioner Peterson, was part of a team from NASDA and the Food Marketing Institute (FMI) who met with major retailing and wholesaling associations. Company food buyers were invited to attend the FMI/U.S. Food Export Showcase in Chicago, May 2 - 4, 1999.

Commissioner Peterson hosted the international NAFTA ACCORD meetings in July between the U.S., Canada and Mexico to improve agricultural trade between the three nations. The commissioner will also host NASDA's annual meeting in September, 1999. The meeting's planning and coordination is being undertaken by the UDAF staff, lead by Regulatory Services Director, Kyle Stephens and Administrative Assistant, Eileen Frisbey.

The department responded to the growing need for new food safety and quality assurance regulations for the food industry. The results were greater efficiencies and improved HACCP (Hazard Analysis Critical Control Point) control procedures. Governor Leavitt appointed Commissioner Peterson to the newly formed Quality Growth Commission which will help create new opportunities for critical land conservation, home ownership, efficient development of infrastructure, and efficient use of land.

The Commission will oversee a multimillion dollar fund to purchase conservation easements to preserve or restore open lands and agricultural lands. The funds may also purchase fee interest of real property to preserve open land and agricultural land.

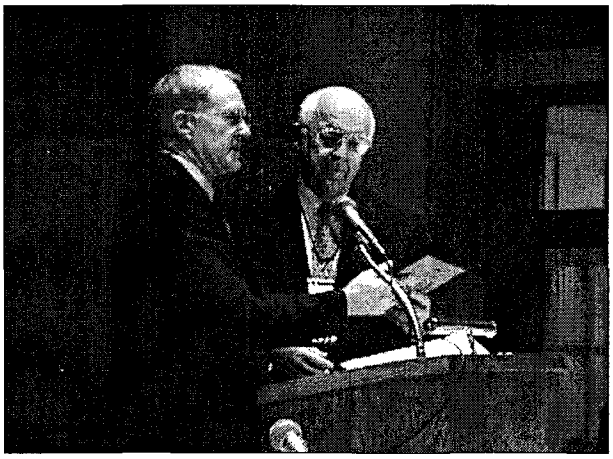
Commission Peterson continues to oversee a growing fund to protect critical agricultural resource lands. The $200,000 fund is designated to be used to protect lands that meet certain production agriculture criteria. Four entities submitted proposal to the commissioner in 1999. The proposals are currently under review.

Commissioner Peterson and his division directors moved the department toward several important goals to improve Utah agriculture.

**Administrative Services**

A new web page was developed for the department. The updated version of the web site is now complimentary to other state agency sites. The 1999 legislature passed Senate Bill 188, mandating several agencies, beginning in 2001, to provide a method of processing licenses using the Internet. The service is to be available to customers by the year 2002. The department programs identified were pesticide licensing and brand recordings. No additional funding was provided to accomplish this task.

*"All the flowers of all the tomorrow's are in the seeds of today"*
*Chinese proverb*



*Commissioner Cary G. Peterson (left) assumes presidency of NASDA from South Carolina Commissioner of Agriculture, Les Tindal in Charleston, South Carolina in Sept. 1998.*

**Animal Industry**

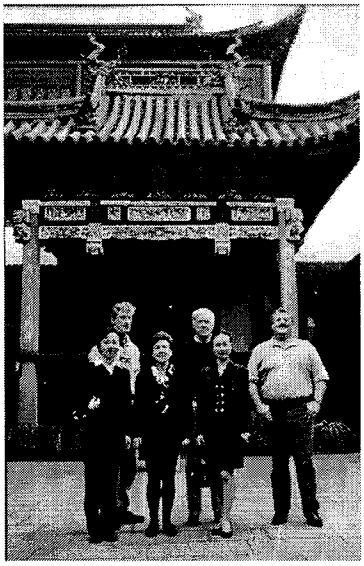
Utah experienced no outbreaks of Vesicular Stomatitis in 1998. A large outbreak of Equine Infectious Anemia (EIA) in free ranging horses in the Uintah Basin occupied a significant amount of our resources, however. A cooperative effort of the Utah Department of Agriculture and Food with the Ute Tribe, private horse owners, and the BLM, resulted in the roundup and testing of 1361 free ranging horses on BLM and Tribal lands. Testing re-

Van Burgess
Deputy Commissioner
Utah Department of
Agriculture and Food

vealed 127 infected animals, of which 116 were sent to slaughter or humanely euthanized. The remaining 11 were young foals which were sent to Oklahoma for a research project sponsored by the BLM and approved by the Oklahoma State Veterinarian. The elimination of these diseased carrier animals from "wild" horse herds is a huge step in protecting Utah's horse population from the threat of EIA.

### Food and Agriculture Exports Set Record

Utah food and agriculture producers and processors continued to focus on development of new international markets in 1998-99. The Asian economic crisis has adversely impacted the record setting pace of each year during the 1990's. Preliminary USDA estimates indicate a 10 percent reduction in export value, which would place Utah exports at around $260 million in 1998. As companies from around the world continue to discover Utah, high quality food and agriculture products are finding new customers worldwide. The Pacific Rim continues to be a great opportunity for Utah's high value food products. Livestock and livestock products continue to be the foundation of export growth, with dairy products, alfalfa hay, poultry and fruit doing well. The fastest growing agricultural export segment is high value, further processed food products.



*Promoting U.S. and Utah agricultural products was the mission of this marketing team made up of members of the National Association of State Departments of Agriculture, the Utah Department of Agriculture and Food and the Food Marketing Institute. The team, headed by UDAF Commissioner Cary Peterson (third from right) and Marketing Director, Randy Parker (right), visited four Pacific Rim countries in late 1998.*

### Chemistry Lab

The acquisition of an accelerated solvent system will allow the extraction of pesticides and fats from samples in a shorter time and requires considerably less solvents compared to normal methods. The near infrared reflectance spectrophotometer (NIR) has been calibrated to measure nitrogen in fertilizers reducing the turnaround time and amount of chemicals used.

### Plant Industry

An unusually large infestation of Mormon crickets and grasshoppers required special action by the Division of Plant Industry and Commissioner Peterson. A Decision and Action Committee was formed in 1999, and chaired by Commissioner Peterson, to plan a strategy on how to combat more than 800,000 acres of infested agricultural and residential land in Utah. The infestation, coupled with no federal USDA-APHIS resources available, put additional pressure on the UDAF to fight the insects.

A second aerial application to treat the gypsy moth in a small portion of Salt Lake County was undertaken in the spring of 1999. Earlier trapping revealed 21 moths in the Knudsen's Corner area of the county.

### Food Compliance Program

During 1998 an administrative rule was promulgated that gives the Division of Regulatory Services the ability to issue citations. Before a citation can be issued, the director will review the violations and determine if it warrants a fine. This new tool will assist in getting compliance in a more rapid manner for those issues that aren't critical, but are essential for compliance with the laws and rules.

Enhancing Utah's food safety programs to protect the consumer is a top priority for the Utah Department of Agriculture and Food (UDAF). On May 15, 1998, a new Food Protection Rule was adopted. This rule reflects the most current science and the best strategies available to ensure a safer food supply. This rule will promote uniformity for industry, and consistency/standardization between FDA, states and local health departments involving both interstate and intrastate commerce.

### 1999 Legislative Action

Deputy Commissioner, Van Burgess and Commissioner Peterson assisted Utah Legislators in 1999 as lawmakers considered and acted on numerous agriculture related bills. Listed below are some of the major laws affecting Utah farmers and ranchers.

**HB 119**, Kevin Garn's Quality Growth Act of 1999. The Act Creates a 13-member Quality Growth Commission to advise the Legislature and local governments on growth management issues and to administer certain funds for growth related projects. **HB 125**, County Option Sales and Use Tax for Conservation Easements (E. Olsen). Allows counties to impose 1/8 % sales and use tax to acquire conservation easements for preservation of open space and agricultural land. The bill passed the House but was not heard by the Senate. It failed. **HB**

**150**, Animal Health Amendments (M.Brown). Removes the mandatory bangs vaccination requirement for Utah cattle, which is consistent with Federal Uniform Methods and Rules for brucellosis free states. It requires testing cattle that enter the state from any other brucellosis free state if the cattle are not from a ranch of origin. Canadian cattle that are not vaccinated but test negative for brucellosis will be allowed into the state. Cattle that are traded within Utah will no longer have to meet the vaccination requirement. Passed. **HB 169**, Annexation of Agriculture Protection Areas (D. Ure). Requires the consent of the owners of all property within an Agriculture Protection Area (APA) before an annexation petition of that area can be approved. The bill also requires similar consent for withdrawal of the area from APA status after annexation. At the request of Farm Bureau, the bill was also amended to incorporate consistencies between counties and cities on how petitions for APAs are received. Passed. **HB 196**, Regulation on Hunting Cougar or Bear (M. Styler). Eliminates the requirement to obtain a small game license to hunt cougar or bear. This change in the law was proposed because the hunting season for these species staggers two calendar years (fall to spring). Passed. **HB 254**, Regulation of Sale of Certain Seeds (E. Anderson). Provides that seed may be labeled as "Variety Seed Not Stated" if allowed by rule of the Department of Agriculture and Food. Passed. **HB 283**, Livestock Market Amendments (D.Iverson). Specifies the requirements pertaining to the application for and transfer of a livestock market license. The bill also requires a livestock market to maintain a financial condition of total assets in excess of total liabilities and to maintain a custodial account. Passed. **HB 296**, Dairy Commission Amendments (C. Buttars). Amends the composition of the Utah Dairy Commission to include 10 rather than 11 geographic districts and removes term limitations for commission members. The bill also amends the election process by reducing the number of signatures required to nominate an individual from 15 down to five signatures. The voluntary assessment of one cent per 100 pounds of milk or cream produced is reduced to three-fourths of one cent. Passed. **HB 311**, Appropriation for Rural Growth Management (K. Johnson). Appropriates $150,000 to support the governor's 21 "Century Communities Initiative and to provide regional circuit-rider planners to assist rural counties and communities with planning needs. Passed. **SB 45**, Domesticated Elk Harvesting (L. Blackham). Deletes the prohibition against hunting domestic elk and directs the Department of Agriculture and Food to promulgate rules governing the possession, transportation, and documentation of domesticated elk carcasses. Passed. **SB 81**, Funding for Cougar and Bear Depredation (B. Evans). Appropriates $150,000 to the Division of Wildlife Resources to compensate livestock owners for livestock damaged by cougar and bear. The bill failed. However, $50,000 was appropriated to the DWR for this purpose. The Division also has access to restricted funds that can be applied to 1/2 of the balance of any claims not satisfied by the appropriated $50,000.

**SB 85**, Appropriation to Rural Rehabilitation Fund (L. Blackham). Transfers $2 million from the Agriculture Resource Development Fund to the Rural Rehabilitation Fund for fiscal year 1998-99. The bill is intended to provide additional funds for lending assistance to qualified farmers and ranchers who are facing financial difficulties. Passed.

### Agricultural Investigation and Compliance

The department's Compliance Specialist, working with the Attorney General's Office, investigates violations of department statutes and rules. The specialist works with division directors enforcing actions resulting from administrative hearings.

The Agriculture Investigator also works with the Wildlife Services program carrying out predator control on public and private rangelands. The program protects Utah livestock and wildlife. The program is affected as regulatory challenges of federal agencies arise--predator control suffers and livestock losses increase.

A major responsibility is to protect Utah producers and consumers by licensing and bonding all individual who buy and sell agricultural products.

In 1998, the Compliance Specialist updated the auction statute giving the state the authority to monitor custodial accounts. The update also modified the requirements for solicitors to auctions to be bonded and licensed as well as changed some requirements for change of ownership of auctions.

### Public Information Office

The Public Information Office is an important link between the public, industry, employees, and the Utah Department of Agriculture and Food.

The office disseminates various publications such as the Ag. News, Utah Agriculture and the department's annual report, as well as creating displays and publications highlighting the services of the UDAF. The office also generates news releases and articles for the public press and various industry publications.

The Information Office partnered with the Utah Association of Conservation Districts to write and produce a series of radio commercials promoting the Year of the Farmer. The campaign reminded listeners of the contributions made by Utah's farmers and ranchers. The Information Office also promoted a series of regional meetings designed to help farmers and ranchers reduce their financial risks. The department's web site is located at: www.ag.state.ut.us. We welcome your comments.

**Foundation for Agriculture in the Classroom**

In 1981 John Block, the USDA Secretary of Agriculture, established the USDA/AITC program. Most Agriculture in the Classroom State Programs formed in the early 1980's. Agriculture in the Classroom (AITC) Programs encourage educators to integrate information about our food, fiber (clothes), soil, and our agricultural systems across the curriculum to assist students in understanding the pivotal role of agriculture in the U.S. and world economy. Students are also exposed to environmental and cultural issues impacting agriculture and to agricultural career opportunities. The long-range goal of the program is a citizenry that can make informed decisions on policies impacting the food and agricultural systems. The AITC Program nationwide currently reaches more than 120,000 teachers impacting more than 5 million students in all 50 states, the District of Columbia, and the U.S. Territories.

**Utah Agriculture in the Classroom**

More than 700 teachers at four undergraduate institutions have been introduced to the Agriculture in the Classroom Program (AITC) this past year. During these two or three hour presentations, prospective teachers learn about the AITC program and the resources and materials that are available to them. The workshops were conducted on a quarterly/semester basis at Westminster College, Brigham Young University, Utah State University, and Weber State University. Evaluations of these presentations will be conducted in the 1998-99 school year.

**Dirt: Secrets in the Soil**

A one hour video program was created to help elementary students understand the fundamentals of soil science. The video, title, "Dirt: Secrets of the Soil" is being distributed to thousands of Utah schools this year. Along with the video-tape, an 88-page educator's guide will be made available for teachers. Emmy award-winner John Greene, who wrote, produced and directed the video segments, said the long-term benefits "are simply enormous...this is the type of information that all of these kids can use throughout their lives to help make the world a better place." This program has the total support of the Utah State Office of Education, and in-service workshops will be offered through out the year. Sixty teachers were trained this summer. Follow-up evaluations are planned.

**National Agriculture Week 1998**

A "pop-out" coloring sheet, with agricultural information, and a crossword puzzle was developed and distributed to every school "media specialist" in the state (468 schools). Included in this mailing was a "Teacher Resource Guide" and "Field Guide to Utah Agriculture in the Classroom" booklet. We had eighteen

*(left) Ag. in the Classroom Coordinator, Debra Spielmaker leads an information demonstration on The Secrets of Soils for teachers from the Granite school district during a January Food Land & People workshop.*

"specialist" request posters and other materials.

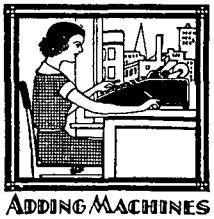
Program Coordinator, Debra Spielmaker, was elected President of the national Agriculture in the Classroom Program. The Utah Agriculture in the Classroom program is sponsored by the Utah Foundation for Agriculture in the Classroom and Utah State University Extension. Ms. Spielmaker served as the President-Elect this past year and will serve as President until June of 2000. In addition, Utah will host the 2000 National Agriculture in the Classroom Conference in Salt Lake City, June 14-17, 2000.

**AITC On-line: http://www.ext.usu.edu/aitc**

A complete listing of our teacher resources is now on-line. Teachers can order and reserve materials directly from our web site. Over 120 resources are listed. Ag-literacy test questions are also made available. All of our newsletters, including back issues, are in a downloadable format and an index was added to help in searching for information. Last year our web site visits totaled 13,867.

**State Fair**

Agriculture in the Classroom provided over 5,000 children an educational experience at the Utah State Fair. Children learned about chick embryology and could even watch chicks hatch. Other activities included spinning wool, making plastic from cornstarch, and making "bread in-a-bag." Additionally, AITC was responsible for the hiring, training, and the scheduling of Utah State University students to conduct "barn tours." Over 6,000 children and adults attended these tours.




# Administrative Services

Renee Matsuura
Director

Administrative Services Division's goal is to provide continuous, efficient and high-quality administrative support and services to the public and to agency users to help with the overall development of agriculture in Utah.

### Information Technology Section

A new web page was developed for the department. The updated version of the web site is now complimentary to other state agency sites. The 1999 legislature passed senate bill 188, mandating several agencies, beginning in 2001, provide a method of processing licenses using the Internet. The service is to be available to customers by the year 2002. The department programs identified were pesticide licensing and brand recordings.
No additional funding was provided to accomplish this task.

The department's web page was updated with information regarding the National Association of States Departments of Agriculture (NASDA) conference to be held in St. George, Utah, September 24 –29, 1999. The department will be hosting the conference as the Commissioner was selected as the president of that organization. We wanted to provide information regarding the conference's schedule and also provide a way for members to download the registration form.

Efforts to provide efficient support to department employees using personal computers and Local Area Network (LAN) and Wide Area Network (WAN) were reviewed. The current help system in place was evaluated and a new performance plan proposed to meet the increased number of complaints from users and downtime of equipment.

### Human Resource Section

The human resource section of Administrative Services Division has a new document imaging system. Currently only two other departments in the state, the Department of Work Force Services and the Health Department, are using document imaging of personnel files. Scanning of documents were expected to be completed in June of 1999. The document imaging system provides directors and employees access to files using their computers. All files are classified private and only available to directors, with the proper security clearance and to employees viewing their own files. The document imaging system will replace the increased number of filing cabinets being used.

### Risk Management Program

The department has created a risk management committee. Committee members are from the Chemistry Laboratory, Department of Agriculture and Food's executive staff, Department of Facilities Construction Management (DFCM), ADA Coordinator, Human Resource section and Division of Risk Management. The committee's responsibilities are to identify and resolve risk issues within the department. A few of those issues are: Implementing an updated version of driver's safety training program to insure all department employees driving state vehicles or their private vehicles have been through an annual training program of driver's safety.

A self inspection survey is completed each year of the building providing the department with a discount in liability insurance. Each division is required to participate in the survey to identify recommended changes, the responsible party, and the date of completion and/or implementation. The state's Risk Management Division has been supportive and provided policies and procedures as needed to insure the safety of Agriculture and Food employees.

### Accounts Receivable Program

The state's new accounts receivable program has been in place for over a year and has been successful. A team of members consisting of division secretaries and administrative services accounting staff were very successful in adapting and adopting the new state system. Members provided input to the process to be utilized within the department making a smooth transition to the state's system. We are looking forward to using this system to close out the fiscal year. It is anticipated there will be savings of 30 man-hours expended during year-end closing.

### Loan Program

Loan officers and support staff are in the midst of testing a new software package in cooperation with the State Division of Finance to be used for the Agricultural Rural Development Loan (ARDL) Program and Rural Rehabilitation Loan Program. Staff members from the Agriculture Loan Program, State Division of Finance and the Division of Administrative Services have agreed to make changes in procedures regarding accounts receivable and preparation of cash deposits. The Loan Section will enter all transactions and prepare deposits for their loans. It is projected that payments on loans will be processed within one day instead of three days.

### Fleet Management System

Fleet Services has implemented a computerized automotive reporting system (CARS) for use by state agencies. The Department of Agriculture and Food was brought on line in January 1999. This provides the department the ability to monitor leased vehicles and to develop reports for management purposes. We have been encouraged to utilize the program to monitor department vehicles and equipment (trailers, provers, and etc.). The system also includes on-line reservation capabilities.

# Ag. Marketing & Conservation

Randy Parker
Director

The goal of the Division of Agricultural Marketing and Conservation is two fold: 1) To assist in the economic development of production agriculture and 2) To protect and enhance the state's natural resources. The division works with agricultural producers and agribusinesses in expanding markets, adding value to locally grown commodities, developing new products and promoting within the state value-added processing for local, national and international markets. In addition, the division works with food producers to protect and enhance the soil and water resources of the state through conservation and quality improvement programs.

### Food and Agriculture Exports Set Record

Utah food and agriculture producers and processors continued to focus on development of new international markets in 1998-99. The Asian economic crisis has adversely impacted the record setting pace of each year during the 1990's. Preliminary USDA estimates indicate a 10 percent reduction in export value, which would place Utah exports at around $260 million in 1998. As companies from around the world continue to discover Utah, high quality food and agriculture products are finding new customers worldwide. The Pacific Rim continues to be a great opportunity for Utah's high value food products. Livestock and livestock products continue to be the foundation of export growth, with dairy products, alfalfa hay, poultry and fruit doing well. The fastest growing agricultural export segment is high value, further processed food products.

### Marketing

A major goal of the division is to assist Utah companies in developing markets locally, nationally and internationally to add value to Utah commodities. To assist in this effort, the division has expanded its ability to assist companies in developing marketing strategies and identifying resources. The division distributes various directories and brochures to help production agriculture as well as the fast-growing food processing sector develop new market opportunities.

### International Market Development

The division has continued to help Utah food and agriculture entities in global market development. As a member of the 13-member state Western United States Agricultural Trade Association (WUSATA), and working closely with the U.S. Department of Agriculture's Foreign Agriculture Service (FAS), the division has assisted value-added food manufacturers in identifying opportunities and strategies for international market development.

Membership in WUSATA has helped the division in a number of export programs and initiatives. Utah consumer-ready foods are eligible to participate in the Congressionally funded Market Access Program (MAP). MAP provides cost-sharing monies to eligible companies that assists in international market development. During fiscal year 1997-98, eight Utah companies were approved for nearly $300,000 in matching funds. In addition, the division continues to manage promotional projects in Hong Kong and Japan that helps western regional and especially Utah companies into these markets.

The division also participates with U.S. Livestock Genetics Export, Inc. (USLGE) to assist Utah livestock producers develop export markets for sheep, beef and dairy genetics. A Utah Livestock Export Directory is available and being distributed worldwide. A focus market has been the Mexican market due to industry needs and geographic proximity. Division personnel and industry representatives have teamed up to promote Utah livestock genetics at the Mexican National Livestock Convention and state livestock shows in the states of Chihuahua and Sonora. The division managed two projects in Mexico and one in Kyrgyzstan in 1997-98.

In June, 1998, at the invitation of the Minister of Agriculture and Water Resources for Kyrgyzstan, the division lead a trade mission to the new, independent republic to conduct meetings with industry, government and academic leaders on sheep and wool marketing. After nearly one hundred years as a part of Russia and the Soviet Union, the Republic of Kyrgyzstan is moving to a market-oriented economic system. Sheep production is an important economic sector as Kyrgyzstan develops export capabilities. Sheep meat and wool marketing in a competitive global market place were focus of the mission. Under a USLGE funded project, UDAF and USDA Sheep Research Station conducted a seminar for the 45 leaders and visited the country's animal research facilities.

Throughout the past year, numerous trade delegations that were interested in developing business opportunities with Utah companies, have been hosted by UDAF . A major food importer from Egypt, El-Samaha, spent two days meeting with and sampling numerous Utah processed food products. City Super, a high-end food retailer from Hong Kong made Salt Lake City one of four stops in the United States. They ordered four consumer-oriented products - Bear Creek Country Kitchens soups, Lynn Wilson meals, Redmond Minerals salt and White's Trout of Paradise. The Utah companies participated in the November "Harvest America" promotion at City Super.

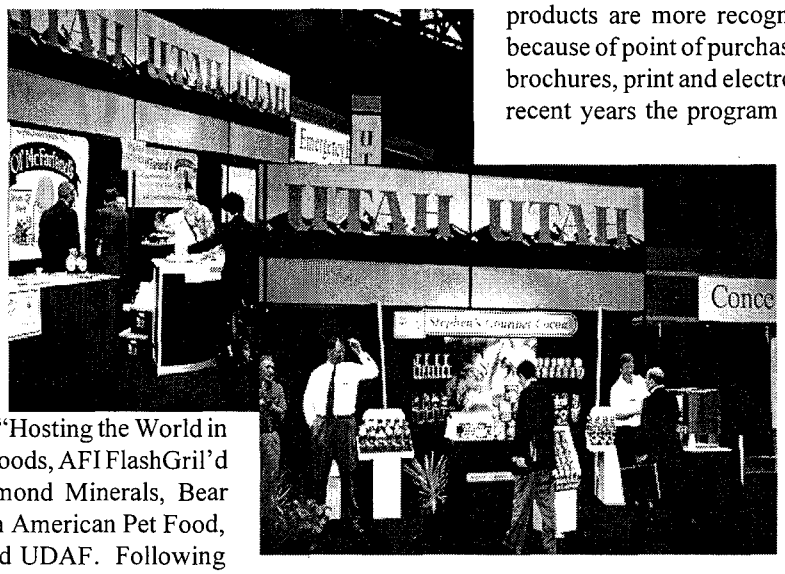
The division provided "Export Readiness" training during two days in June. Working with WUSATA, a consultant with over 25 years experience provided one-on-one recommendations on product, packaging, and export opportunities. This training will be available again in 1999.

Utah's Commissioner of Agriculture serving as President of the National Association of State Departments of Agriculture (NASDA) has provided trade policy and promotion opportunities for Utah. The division attended the North American Accord meeting in Puebla, Mexico as a member of the U.S. delegation. The annual Accords are an opportunity for talks on agriculture and food issues impacting the NAFTA participants. In November, the division joined Utah's Commissioner Peterson and NASDA on a trade mission to Taiwan, China, Hong Kong and the Philippines. The trade mission's focus was to promote the May 2-4, 1999 U.S. Food Export Showcase in Chicago sponsored by NASDA. The delegation met with trade associations, importers, retailers and the press to promote the value of attending the NASDA event.

### Great American Food Shows

The division works with FAS to introduce Utah's high quality, consumer ready food and agriculture products to the world through Great American Food Shows. Utah companies interested in new international markets are able to participate in organized U.S. pavilions that attract perspective consumers, importers, wholesalers, and retailers.

The division this year managed a Utah presence in three major international shows and assisted participants in other major shows. The division coordinated the Utah Pavilion at U.S. Food Export Showcase held in Chicago May 3-5, 1998. The show is sponsored by the National Association of State Departments of Agriculture and attracts over 6,000 international buyers annually. The Utah Pavilion under the theme, "Hosting the World in 2002" included: McFarland's Foods, AFI FlashGril'd Steaks, Gossners Foods, Redmond Minerals, Bear Creek Country Kitchens, North American Pet Food, Brigham Young University and UDAF. Following the three day show participants estimated sales from show contacts at $6.6 million in the next 6 to 12 months. UDAF again coordinated a Utah Pavilion at the 1999 USFES.




*The Utah pavilion at the U.S. Food Export Showcase in Chicago attracted many of the 6,000 foreign and domestic food buyers. The pavilion was sponsored by the UDAF which helps Utah food producers gain access to new overseas markets.*

In addition, the division worked with companies participating in: SIAL, held in Paris, France - the world's second largest food show attracting over 150,000 people during its five-day run; and FOODEX, held in Tokyo, Japan - Asia's largest food show attracting over 30,000 people.

At SIAL, Germany's NEW FOODS CONGRESS, recognized McFarland's Foods of Riverton, Utah with an award for introduction of the "Outstanding New Food Technology" introduced into Europe in 1998. McFarland's new patented process for "Chicken Bacon" combines dark and light meat into strips that are given bacon flavoring. The combination of 68 percent less fat for the health conscience and the ethnic opportunities with the Muslim and Jewish communities gave it the New Foods blessing.

### Agribusiness Development Council

The Governor's Agribusiness Development Council continues to serve as a bridge between UDAF and the Department of Community and Economic Development. With leaders in Utah's food and agriculture industry serving on the Council, it is the catalyst for developing and implementing strategies for adding value to Utah's agricultural commodities and strengthening our rural economy. The Utah Food and Agriculture Directory, a database developed under the direction of the Council, continues to be distributed to a global audience to attract potential business opportunities to Utah. The Council continues to focus on new technology, innovation, niche market development and the finance problems facing food and agriculture.

### Product of Utah

The Product of Utah program continues to be successful in identifying Utah grown and produced products to local consumers. A broad range of food and agricultural products are more recognizable to Utah consumer because of point of purchase materials, informational brochures, print and electronic media advertizing. In recent years the program has broadened to include non-agricultural items especially in the sports and recreation areas. Utah has become known worldwide as a sports and recreation destination and marketing with an official Utah identification has helped open new markets.

There are currently over 200 companies that participate in the trademarked program. An area of recent success has been international recognition. The product of Utah logo has been featured by the state and many companies at international trade shows. Utah is fast becoming known for its high quality products and innovations. You will see the logo on products at the store, in various advertising and feature programs like "Shop Utah" hosted by Margo Watson on KJZZ television.

### Market News Reporting

The Market News Section provides a vital service to the state's agriculture and agribusiness community. Market information is critical to the decision making process. Critical information is provided through print media, broadcast media,

call-in service, a weekly mail market summary and the most up-to-date information on the department's worldwide web site. The service provides an unbiased market report of market activity. The hay market report compiles both buyer and seller data to provide an accurate, unbiased report. There are currently over 400 subscribers to the weekly report and more than 1,000 visitors per month to the web site, www.ag.state.us. Division personnel or contract reporters monitor livestock auctions in Cedar City, Salina, Spanish Fork and Ogden.

### Junior Livestock Shows

The division administers the legislative mandated and funded program to assist the state's junior livestock shows. Funds are allocated through a formula that promotes youth involvement and a quality educational experience. The Junior Livestock Show Association has developed rules with which shows and youth participants must comply to quality for state assistance. The funding provided by the legislature must be used for awards to FFA and 4-H participants and not other show expenses. During the past year 18 junior shows were held, with 3,166 children participating.


### Utah Horse Racing

The division administers the legislative mandated responsibility of monitoring the Utah horse racing industry and associated tracks. As provided by 1992 legislation, a regulatory process was established, with periodic changes to meet changing needs or based on industry input, to govern Utah horse racing. A five-member Commission appointed by the Governor and approved by the State Senate oversees the process. This authority is important in establishing recognized times and the associated values of Utah Quarter Horses. During the past year, nearly half of the horses running on sanctioned tracks received Rating of Merit (ROM), an indexes that establishes horse values and stud fees. Without this regulatory system and sanctioning body being in place, Utah quarter horse races and associated times would not be recognized resulting in the loss of millions of dollars of value to our horse industry.

### Soil Conservation

The major objectives of the soil conservation section are: 1) to help empower Utah's private land managers to direct the local-state-national land and watershed conservation and development partnership programs; and, 2) to help slow the loss of Utah's prime and important farmland to non-agricultural uses. To accomplish these objectives, financial and administrative support is provided to Utah's 38 Soil Conservation Districts (SCD), the Utah Soil Conservation Commission (SCC), and Utah's Partners for Conservation and Development.

Over $1 million of state legislatively appropriated funds were made available this fiscal year to Utah's SCD Boards and their state-wide organization and the Utah Association of Conservation Districts (UACD) to carry out their duties. Most of these funds are allocated by the SCC and contracted to SCDs or UACD by the department.

Utah's soil conservation districts have a major influence on state and federal government conservation programs. They direct, or provide, technical assistance and planning for conservation practices installed by private land managers. This fiscal year the districts and their association sought and obtained $400,000 additional ongoing state general funds to provide needed technical assistance for these projects. This is needed because federal technical assistance capability is decreasing while the demand for Utah conservation projects increases.

Utah's SCDs have the major opportunity to coordinate conservation programs at the local level. They are the link between most public natural resource protection and improvement programs and the private land manager. They have been designated in USDA Farm Bill conservation provisions to provide the leadership for the local work groups. These local work groups have a major influence on solving natural resource concerns of Utah citizens. During this year most local work groups were very active. Some received significant federal and state cost-share funding to address environmental concerns.

The state's conservation districts and UACD also carry out important conservation education for the citizens of Utah. They are a major supporter of the Agriculture in the Classroom program. They were the initiators and facilitators of the Year of the Farm celebration. Most SCDs conduct their own annual conservation education programs in their district or support other groups' programs.

The SCC is a 12-member state board that directs and coordinates state level soil conservation programs. It sets policies for SCDs and the ARDL program, and allocates state funding to conservation programs. Eight members are private land manager representatives from throughout Utah who are SCD Supervisors appointed by the State Senate. The other four members are agency heads from: USU Extension, Utah Departments of Natural Resources, Utah Departments Environmental Quality, and Utah Departments Agriculture and Food. This division's soil conservation section is the primary administrative support for the USCC.

The conservation section personnel participated with Utah Partners for Conservation and Development activities especially the Partners Action Team and the partnership's conservation education efforts. This local-state-national partnership helps assure that conservation programs carried out in Utah work together to meet the needs of the people and the land on which we depend.

### Ground Water and Rangeland

The department's rural Ground Water, Well Testing and Rangeland Monitoring Programs continue to grow. The Utah Ground Water Program checks ground water quality throughout the state as requested by local soil conservation districts. The primary focus of the program is to check irrigation and livestock well water quality. Single family wells are also evaluated. The data help farmers and ranchers in their efforts to increased production and water quality.

In 1998, 128 water samples were taken in Venice/Monroe, Pavant and Curlew Valleys, Mammoth Creek, Panguitch Lake and Pelican Lake.

The Rangeland Monitoring Program is a cooperative effort with the Utah Division of Wildlife Resources to study trends in range conditions throughout the state. Each summer a crew of range scientists, biologists and technicians study a different region of Utah. In 1998 the crew was in the Southwest portion of the state. This year the group will be in Southeastern Utah.

The division's Environmental Quality Section is divided into three areas: Non-Point Source (NPS) water quality, rural ground water well testing, and rangeland monitoring. Each of these programs is a cooperative effort between outside agencies or divisions within the UDAF.

### Non-Point Source Pollution

The Environmental Quality Section administers the agricultural watershed enhancement and information & education portions of Section 319 of the Clean Water Act for the U.S. Environmental Protection Agency. This section of the act applies to NPS pollution control.

Watershed restoration efforts continue in several watersheds throughout Utah including: Otter Creek Watershed in Central Utah, Beaver River Watershed in Southern Utah, and Chalk Creek Watershed in Northern Utah.

Section employees are also involved in statewide NPS pollution issues such as revision of rules concerning concentrated animal feeding operations; implementation of total maximum daily load (TMDL) standards and strategies, as required by EPA; and development and implementation of several statewide information and education programs, including Adopt-A-Waterbody projects and development of a TMDL brochure.

### Agricultural Resource Development Loans

Low-interest ARDL loans are available through the Utah Soil Conservation Commission in cooperation with the division's program. ARDL loans are made for a maximum term of 12 years at 3 percent interest with a one-time administrative fee of 4 percent. The objectives of the program are to: conserve soil and water resources; increase agricultural yields for croplands, orchards, pasture, range, and livestock; maintain and improve water quality; conserve and improve wildlife habitat; prevent flooding; conserve and/or develop on-farm energy; and reduce damages to agriculture as a result of flooding, drought, or other natural disasters.

The Legislature appropriated $130,000 in FY 1998-99. The ARDL program currently has more than $24.7 million in assets and more than $15.3 million out in loans. More than $40 million has been advanced for improvement projects by the ARDL program since its beginning. The program continues to grow from interest collected on revolving loan funds. There are approximately 900 individual loans outstanding in the program.

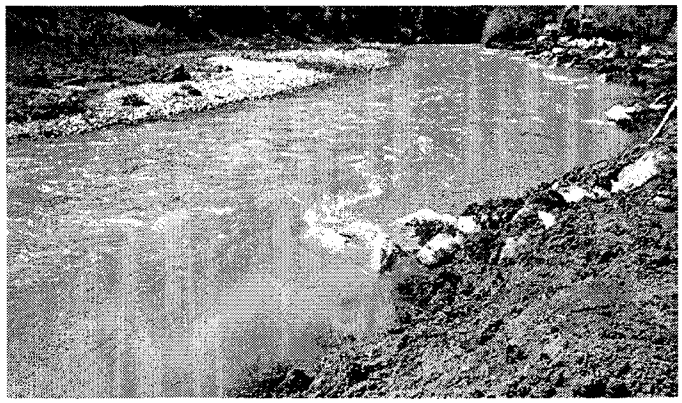
### Rural Rehabilitation Loans

The Rural Rehabilitation Loan Program is another source of low-interest loans for farmers and ranchers. The purpose of this program is to help those who want to buy, begin or improve an agricultural operation but who have trouble getting conventional financing. The current interest rates for these loans are from 5 to 6 percent. This loan fund was augmented by an appropriation of $1 million by the Utah Legislature to assist distressed farmers in 1992. Total assets for this fund are more than $3.7 million with $3.2 million out in 66 individual loans. Delinquencies in all loan programs are very low. The Legislature approved a $2 million transfer from ARDL loan fund to help meet loan demand for rural rehabilitation type loans.

Both the ARDL and Rural Rehabilitation programs have successfully provided assistance to many farmers and ranchers in implementing conservation improvements and practices they otherwise could not afford.

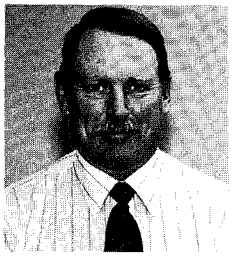
### Petroleum Storage Tank Loans

In addition to the agriculture loans, the division manages the Petroleum Storage Tank Loan program in cooperation with the Division of Environmental Response (DERR) of the Department of Environmental Quality (DEQ). The division is responsible for underwriting, closing, documenting and accounting for the loans, and DERR approves the bids, inspects the projects and controls the funding. The applicants are mostly small petroleum retailers whose businesses are in rural areas of the state. The program provides for secured loans of up to $45,000 to finance up to 80 percent of the costs of the individual projects. Terms permit loans of up to 10 years at 3 percent interest and no fees. The program is important in that it allows many small businesses to remain profitable despite the expense of complying with environmental laws and regulations. The $5 million fund is also a revolving fund with loan repayments expected to be available to fund future loans. There is currently $1,526,000 outstanding in 65 individual loans.



*Chalk Creek-- one of several water quality improvement projects successfully completed by the Division of Marketing and Conservation. The streambanks were stabilized with specially placed rocks and deep rooted vegetation.*

# Wildlife Services



Mike Bodenchuk
Director

To assist livestock producers and wildlife management activities, the U.S. Department of Agriculture and the Utah Department of Agriculture and Food conduct a cooperative program known as Wildlife Services (WS). The cooperative program, which includes 18 State wildlife specialists and 16 federal employees is held up as a model for wildlife services programs throughout the nation. In 1998, Utah Governor, Michael Leavitt recognized the program with his Quality Service Award.

Environmental Assessments, finalized in 1996, evaluated the possible environmental consequences of the program. While no significant negative environmental impacts were noted, changes to the program were indicated which allow WS to better accomplish its mission while protecting agricultural and natural resources.

The alternatives selected allow WS to include protection of wildlife species, notably mule deer and endangered species, when conducting predator management activities. The program is financed jointly, with the federal government paying about half and the state and livestock producers paying the balance. In Utah, livestock owners pay a fee nicknamed a "head tax" set by state law. Collection of the head tax changed in 1996 from a billing system to automatic payment at the point of sale. The change in the collection process has allowed stable funding for the WS program.

The program's objective is to minimize livestock and wildlife losses to predators on private, state and federal lands. WS carries out this objective by integrating methods including recommending non-lethal methods for producers to implement and by removing predators when they cause damage. The program targets only offending animals or offending populations of coyotes.

Methods are used as selectively as possible to minimize impacts to other wildlife. Methods used to control coyotes include aerial hunting, calling and shooting, trapping, denning and M-44 cyanide ejectors.

Cougars and black bears also pose a serious problem to livestock producers in portions of the state. Control of predation by these two species is coordinated through the Utah Division of Wildlife Resources, and limited to offending individuals only. Once predation is confirmed, the offending individuals may be removed by the wildlife specialist if it is determined that it presents a continued threat to livestock. State law also provides partial payment to livestock owners for confirmed losses to cougars or bears. WS employees assist by confirming the vast majority of depredations by these species.

WS continues to monitor producer use of non-lethal methods. Additionally, WS assists in the development of selective non-lethal and lethal methods. Experimental protocols are in place to examine non-lethal bear damage prevention. The federal research arm of WS has also requested Utah WS assistance in evaluating humane trapping and M-44 techniques.

Predation management is also important in wildlife production areas. In 1998, WS worked in 12 deer management areas where deer populations were severely depressed, four sage grouse areas, seven pronghorn herds, four waterfowl production areas and eight experimental pheasant protection areas. Additionally, WS protected the threatened Utah prairie dog and conducted disease monitoring in preparation for black-footed ferret reintroduction. In all of these, coordination with the Utah Division of Wildlife Resources was critical to accomplishing the WS mission.

Human health and safety is also a mission of the WS program. WS conducted an urban wildlife program aimed at reducing disease threats and health risks from raccoons, skunks and urban waterfowl. Significant property damage is also addressed by this program. WS also cooperates with Salt Lake International Airport in monitoring wildlife populations at the airport to reduce the threat of striking planes.

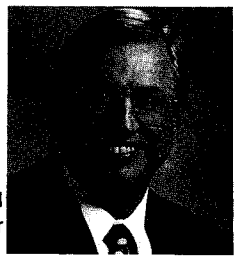
Since the implementation of the EA Decisions in 1996, livestock losses to predators have decreased significantly. According to the National Agricultural Statistics Service, adult sheep losses to coyote, cougar and bear have decreased from 10,600 in 1996 to 7,300 in 1998; lambs lost after docking decreased from 29,200 in 1996 to 18,500 in 1998. While these decreases are significant, losses continue to plague the sheep and cattle industry. WS will continue to evaluate better ways to address losses while protecting the environment.

UTAH SHEEP LOSSES TO PREDATORS - 1998

| | Sheep | Lamb |
|---|---|---|
| Coyote | 4,500 | 17,200 |
| Cougar | 1,800 | 4,400 |
| Bear | 1,000 | 1,700 |
| Eagle | 0 | 1,100 |
| Dog | 1,200 | 900 |
| Fox | 0 | 900 |
| Bobcat | 100 | 600 |
| Other animals | 100 | 300 |
| Total | 8,700 | 27,100 |
| Dollar loss | $957,000 | $1,260,000 |

See page 66 for more information on sheep and lamb losses

# Animal Industry



Dr. Michael R. Marshall
Director

The Animal Industry Division of the Utah Department of Agriculture and Food contains five main bureaus or categories:

1) Animal Health -- with special attention to animal diseases that can be transmitted to humans.
2) Serology Laboratory -- testing of animal blood for disease detection and control.
3) Meat and Poultry Inspection -- to assure wholesome products for consumers.
4) Animal Identification (brand registration and inspection) -- to discourage livestock theft.
5) Fish Health -- protecting the fish health in the state and working with fish food production and processing.

Major accomplishments in these areas during the past year are as follows:

**Animal Health**

Disease free status was maintained in the following disease categories: *Brucellosis*Tuberculosis *Scabies * Pseudorabies *Salmonella pullorum

Disease monitoring programs continued from prior years include those for heartworm, equine encephalitis, equine infectious anemia, rabies, brucellosis, tuberculosis, pseudorabies, salmonella sp., mycoplasma, etc.

Division veterinarians met with the various livestock enterprise groups, farm organizations, veterinary associations, and other groups in the state to receive input concerning their needs. Industry discussions led to the development of health rules for the control of Trichomoniasis in cattle using public range lands and bulls entering the state. Training of approximately 50 veterinary practitioners in this program was conducted and educational material was developed and distributed.

Voluntary disease control programs are at the forefront of the effort to improve the animal health of the nation. Programs such as the Utah Egg Quality Assurance Plan, which is one of three such programs in the nation, and the National Poultry Improvement Plan, were fully implemented, including training of participants and monitoring of each farm's quality assurance plan. Attendance by a division veterinarian and an industry representative at the National Poultry Improvement Program Biennial Conference resulted in that industry representative being named as an alternate to the General Conference Committee of the NPIP, giving Utah industry input on the national level.

Other voluntary control programs are being developed in the areas of a Johne's Disease Control Program in cattle, a premise identification system for dairy, poultry, and swine producers, TB and brucellosis herd accreditation for elk, and monitoring programs for the (non-) existence of Chronic Wasting Disease in Utah's public and private elk herds.

The department veterinarians monitored livestock imports into the state by reviewing 11,450 certificates of veterinary inspection and several hundred livestock movement reports. Approximately 369 violations of Utah import regulations were investigated, four quarantines were issued, and nine citations were given with fines of $652 collected. There were eight incidents reported to the division by brand inspectors of heifers changing ownership in the state without first being vaccinated for brucellosis as required by law. These were investigated and the cattle were vaccinated.

Utah experienced no outbreaks of Vesicular Stomatitis in 1998. A large outbreak of Equine Infectious Anemia (EIA) in free ranging horses in the Uintah Basin occupied a significant amount of our resources, however. A cooperative effort of the Utah Department of Agriculture and Food with the Ute Tribe, private horse owners, and the BLM, resulted in the round-up and testing of 1361 free ranging horses on BLM and Tribal lands. Testing revealed 127 infected animals, of which 116 were sent to slaughter or humanely euthanized. The remaining 11 were young foals which were sent to Oklahoma for a research project sponsored by the BLM and approved by the Oklahoma State Veterinarian. The elimination of these diseased carrier animals from "wild" horse herds is a huge step in protecting Utah's horse population from the threat of EIA.

A small outbreak of EIA also occurred in horses on two neighboring ranches on Promontory. The index case in the outbreak was a recent purchase from the Promontory ranches and diagnosed by a veterinarian in the Ogden area. Epidemiological trace back and testing found three of nine horses were positive on the two ranches. Horses on surrounding ranches were tested and no further positive animals were identified. The herd to which the index horse had been added was quarantined for 45 days and retested and one of the exposed animals was found to have developed the disease in the interim. All the positive animals were sent to slaughter or humanely euthanized.

The reported incidence of Heartworm in Utah nearly doubled in 1998 with 117 cases reported, up from a previous high of 63 cases in 1997. The division veterinarians responded by re-emphasizing the reportable nature of the disease to veterinarians and their clients. This effort resulted in a significant decrease in the number of diagnosed cases where the owner was electing to do nothing to prevent the animal from being an exposure risk to other animals. Other diseases of a reportable nature included Paratuberculosis - three cases, Rabies - 27 cases (all bats), Equine Brucellosis - one case, Psittacosis - three cases.

Exotic animals and domesticated animals that were traditionally wild consume an increasing portion of department resources. Animals such as bison, elk, ostrich, emu, game birds, exotic pets, etc. continue to increase in popularity. Utah elk farms grew to

20 in number in 1998. The appearance of Chronic Wasting Disease (CWD) in farmed elk in South Dakota, Nebraska, and Oklahoma resulted in the development of a national "Model Program for the Surveillance, Control, and Eradication of CWD in Domestic Elk." Division veterinarians participated in the formative stages of that program. Ostrich were included in the National Poultry Improvement Plan at the rule making portion of that organization's biennial conference in which division veterinarians participated.

Division veterinarians are involved with certifying Utah agricultural products for export by issuing certificates of veterinary inspection. They performed 38 onsite inspections for brine shrimp being exported. A similar service was performed in the dog jerky industry where 49 onsite inspections were done and appropriate certificates issued.

The division is responsible for licensing hatcheries, qualified feedlot operators, and swine garbage feeders in the state. Fourteen such licenses were issued and onsite inspections were accomplished. The number of hatcheries in the state is increasing in the ostrich and gamebird industries. The division also administers the National Poultry Improvement Plan in the state. This is a voluntary testing program wherein a flock may be certified disease free in several important disease categories. Participants in the program enjoy significant benefits when shipping birds, eggs, and products in commerce.

Animal Health has the responsibility of providing veterinary supervision and service to the livestock auction markets in Utah in furtherance of our disease control and monitoring programs. The program is administered by division veterinarians using private veterinarians on contract with the state. More then 500 weekly livestock sales conducted by nine licensed and bonded sale yards in the state were serviced under this program. Division veterinarians also provided oversight for veterinarians and technicians involved with brucellosis vaccinations and veterinarians issuing certificates of veterinary inspection for interstate movement of animals. They also provide veterinary expertise for CSEPP, a statewide emergency response organization.

**Serology Laboratory**

The primary mission of the serology laboratory is to conduct tests on blood and milk samples to help protect the health of animals and humans

In 1998 the serology laboratory conducted the following tests:

| | |
|---|---|
| -Brucellosis serology tests | 49,512 |
| -Brucellosis ring tests (milk) | 6,227 |
| -Rivenol brucellosis confirmation tests | 286 |
| -Equine infectious anemia tests (coggins) | 2,476 |
| -Other miscellaneous tests | 3 |

There was a four-fold increase in Equine infectious anemia testing in 1998, due to the outbreak of EIA in the Uinta Basin.

During 1998, the laboratory dispensed 64,380 doses of RB-51 brucellosis vaccine. In addition 73 vials of tuberculin tests reagent were dispensed. The laboratory staff and other animal health personnel issued 2,105 import permits for livestock, poultry and other animals.

**Meat and Poultry Inspection**

The Meat and Poultry Inspection Bureau continues to see significant increases in quantity of services to meet the demands of the meat and poultry industry of Utah. In the past year three new meat and poultry processing facilities have made application for and have been granted inspection services. These increases in requests for inspection services continue to come into the office and are each carefully considered and assisted in the application process. The associated work load increases have been made without increasing the number of inspection personnel. This has been accomplished through efficient scheduling, a devoted staff and the utilization of the Performance Based Inspection System (PBIS), a computer program that has streamlined the inspection process while maintaining accurate and systematic review of all inspection tasks. This system has been in place for three years now and has proven to improve the processes we undertake and assist the bureau in accomplishing the large workload we are seeing.

The Sanitation Standard Operating Procedures (SSOP) that were initiated and put into practice two years ago as part of the new inspection system termed Hazard Analysis, Critical Control Point (HACCP) has proven to be a significant improvement for overall plant and product sanitation and quality. Under the new system, the meat and poultry establishment management are required to develop a plan that delineates how their plant will maintain the standard sanitation operational procedure within their plant. This plan is a written document that states what will be done, how it will be done, when it will be done, and who is responsible for doing it. Bureau employees will monitor records kept by the establishments to verify the plants adherence to their plan. In addition to the records verification and review, the Bureau staff will perform tasks scheduled to be completed by the PBIS computer system. Under this new system the plant takes full responsibility to produce a wholesome and fit product for the consumer under their own plan of action for sanitation that is in line with regulatory guidelines. Only if the plant fails to follow their own written procedures, take the appropriate corrective action in the case of a sanitation non-compliance, or if the inspection staff observes a non-compliance issue that is involving a product contact surface will the inspector take control of the situation to assure product sanitation is maintained.

The Hazard Analysis, Critical Control Point (HACCP) is a mandatory program that will be phased in by the size of the plant. During 1998, only plants over 500 employees are under the HACCP inspection program. Starting in January of 1999, plants from 10 to 500 employees will be under the new HACCP inspection program. To prepare plant management and their employees for the new program, we have offered five two-day HACCP certification training meetings for small and very small plant owners and operators. They were very well attended and were very successful. In addition to these classes for the plant management, we gave three, four-day HACCP inspector certification training sessions. This was to allow the inspection staff to become proficient in the application of the new inspection system and allow them to be familiar with the program to allow them to assist management in the transition to the new system.

By the year 2000, all meat and poultry packing plants will be under the new system. The HACCP system is a scientific basis for inspection, attempting to minimize potential product contamination with pathogenic organisms, and at the same time allowing each individual plant to custom design a program for their specific product and facility application.

In addition to the HACCP inspection system, the Bureau has entered into microbiologic testing of raw and cooked finished product to verify establishment adherence and compliance with current regulations. Since July of 1998, we have examined 145 Salmonella samples. We have tested 60 cooked ready to eat samples that look for three different pathogens: Salmonella, Listeria and E.coli. Finally, the generic E. coli testing program was initiated in all state plants. This pathogen testing program is a plant responsibility to sample, send and receive negative sample results on one primary element per week for 13 consecutive weeks. We have completed over 400 individual samples for the generic E. coli testing program in 1998. We look forward to continue the monitoring of inspected product to maintain a quality assurance confidence for the consumers of our state. Our goal is to maintain a program that is equal to or superior to the federal meat inspection programs that we have mirrored to present.

**Livestock Inspection**

The Livestock (Brand) Inspection Bureau consists of 14 full-time special function officers and 50 part-time inspectors. Their job is to protect the Utah livestock industry from theft of livestock. In addition to inspecting all cattle and horses at the state's nine weekly auctions, field inspections are done on all livestock prior to changing ownership, leaving the state and going to slaughter. During 1998, 700,000 individual cattle and horses were inspected with $1.8 million worth of livestock being returned to their proper owners.

Renewal of some 20,000 livestock brands and earmarks was accomplished in 1996. As mandated by law, the process occurs every five years in order to keep brands current. In addition to each brand owner being listed in the Centennial Brand Book, the department issued everyone a laminated wallet-size proof of ownership brand card. The ownership card is intended for use during travel and when selling animals at the auctions. A supplemental brand book is presently being published showing all individuals who have recorded a brand since 1996. The Centennial book and supplement are available to the public at a cost of $25. The bureau recorded 650 new brands during 1998 and is seeing more interest in the recording of brands for horses.

The brand department started collecting the cattlemen's part of predator control money in 1996. During 1997, livestock inspectors collected $120,000 in predator control money. This money, like the beef promotion money which has been collected by the brand inspectors for many years, will simply be forwarded to the Wildlife Services Program for its use. Sheepmen will continue to have their allotment collected by the wool houses and forwarded to the department.

In an effort to assist and give training to the state's port-of-entry personnel, a livestock inspector was assigned to work monthly in each port-of-entry. These inspectors are authorized and equipped to chase down those livestock transporters who ignore the signage requiring all livestock hauling vehicles to stop. This is an effort to help prevent diseased animals from entering and stolen animals from leaving the state.

During the 1997 legislative session, the Domestic Elk Farming bill was passed allowing the farming of domestic elk on an individual's private property. The brand bureau has been asked to regulate this new industry. Livestock inspectors are involved in the inspection of new facilities and elk as they come and go from each licensed farm. They help verify identification, ownership, health and genetic purity of every animal. Within the first two years of the passage of this law 21 new farms were licensed. An eight-member elk advisory council was formed to make recommendations and give direction to this industry.

**UDAF Fish Health Program**

By the end of 1998, 84 commercial aquaculture and fee fishing facilities were registered with the UDAF, Fish Health Program. New applications, primarily for fee fishing sites, continue to be filed. This illustrates the continued interest in aquaculture in Utah.

Thirty-one aquaculture sites were tested for the presence of prohibited pathogens this year. The whirling disease pathogen was found at one of the sites. No other pathogens were found.

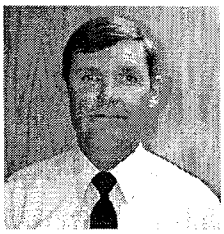
Two issues of "Aquaculture in Utah" newsletter were published in 1998. Articles dealt with water quality, feeding, various diseases and pathogens, aquatic nuisance species, brine shrimp, regulation changes, and services available through the Fish Health Program.

Services extended to clients and the public include numerous consultations and distribution of information on aquaculture and fish diseases, 12 on-site water quality tests, diagnostic services involving fish losses and laboratory work at the Smart Veterinary Diagnostic lab, continued work on a virus detected in crayfish in Utah, 30 brine shrimp inspections for health certificates, issuing 32 and 52 CORs respectively to commercial aquaculture and fee fishing facilities, issuing 55 fish health approvals, issuing 64 entry permits, improving the registration process, review of proposals for research and project development, and preparing information for the news media.

The Fish Health Program continues to develop and implement revisions to the Aquaculture Rule through the Fish Health Policy Board. In addition, policies on various topics such as Asian tapeworm, border crossings, whirling disease, biosecurity, registration procedures, and import regulations continue to be implemented.

Program personnel have taken additional training to enhance their knowledge and effectiveness to deal with fish health issues, customer service, and state employment.


# Chemistry Laboratory



Dr. David H. Clark
Director

The Chemistry Laboratory operates as a service for various divisions within the Department of Agriculture and Food. The division laboratories provide chemical, physical, and microbiological analyses.

The majority of the samples analyzed are collected and forwarded by various field inspection personnel from the Divisions of Plant Industry, Regulatory Services, Animal Health, and Marketing and Conservation Programs. Feed, fertilizer, meat and meat products, pesticide formulation, and dairy products are tested for specific ingredients as stated by the associated label guarantee. Some products are also examined for the presence of undesirable materials, such as filth, insects, rodent contamination, adulterants, inferior products, and pesticide residues.

The Dairy Microbiology Laboratory tests in four major areas: Grade "A" Raw Milk, Industry Laboratory Certification, Quality Milk, and Consumer Products. This laboratory is certified by FDA to test for standard plate count, coliform count, microscopic and electric somatic cell counting, antibiotics, pasteurization completeness, fat, and water determinations.

The laboratory is also certified as the FDA Central Milk Laboratory for the State of Utah, and our supervisor serves as the State Milk Evaluation Officer (LEO) which has jurisdiction over the certified milk labs within the State. Currently, there are eight facilities with 28 analysts under the LEO's jurisdiction. The LEO sets up yearly proficiency testing on all analysts and is responsible for on-site evaluation and training of all certified analysts throughout the State.

The Meat Laboratory analyzes meat and meat product samples obtained during inspections of plant and processing facilities that conform to Federal and State standards. Tests for levels of fat, moisture, protein, sulfites, and added non-meat products ensure label compliance of these products. Samples (meat and carcass swabs ) are also tested for the presence of Salmonella.

The Pesticide Formulation Laboratory is primarily concerned with testing herbicides, insecticides, and fungicides to ensure that the listing of active ingredients and their concentrations are in compliance with state labeling laws.

The Pesticide Residue Laboratory tests for presence and subsequent levels of herbicide, insecticide, rodenticide, and fungicide residues in plants, fruits, vegetables soil, and milk products. These samples are submitted when inspectors suspect there may be a misuse of the product or to monitor residue levels in food products thus ensuring public safety. Fertilizer samples are analyzed for nitrogen, phosphorus, potassium, and trace elements. All feed and fertilizer results are compared to label guarantees to ensure compliance with state labeling laws. Special Consumer Complaint Samples are also examined for the presence of undesirable materials. Analysts check to see if complaints are valid, and if they are, turn the matter over to Department Compliance Officers. Ground and Surface Waters are monitored for the presence of undesirable chemicals. Information is combined with other water quality data to provide base line information on the quality of the state aquifers.

The acquisition of an accelerated solvent system will allow the extraction of pesticides and fats from samples in a shorter time and requires considerably less solvents compared to normal methods. The near infrared reflectance spectrophotometer (NIR) has been calibrated to measure nitrogen in fertilizers reducing the turnaround time and amount of chemicals used.

The Salmonella testing program for the state inspected plants is functional and we are currently analyzing 30 samples each month. If a sample is identified as positive we have an agreement with the state health laboratory to verify our results.

We have started analyzing meat samples for the presence of antibiotic residues and the presence of poultry or swine products mixed in with the ground beef.

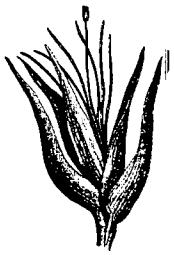
Group meetings with chemists and supervisors from the different divisions are held regularly to discuss status of ongoing programs, problems, new test needs, etc.

The laboratory consistently ranks very high on the check sample programs administered for meat, feeds, fertilizers, and pesticide residue and formulation samples.

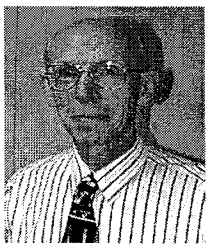
The following is a breakdown of sample analyses performed in the various programs by the Chemistry Laboratory Division for the year 1997 and 1998.

| | 1997 | 1998 |
|---|---|---|
| Federal/State Meat | 793 | 485 |
| State Meat | 1,390 | 1,636 |
| Montana Meat Samples | 105 | 76 |
| Dairy Microbiology | 28,031 | 22,685 |
| Fertilizer | 754 | 643 |
| Feed | 885 | 707 |
| Pesticide Formulation | 33 | 0 |
| Pesticide Residue | 101 | 16 |
| Special Samples | 45 | 38 |
| State Groundwater | 5,000 | 3,759 |
| Pesticide Residue in Milk | 1,694 | 1,560 |
| Salmonella | 0 | 173 |
| TOTAL | 38,801 | 31,778 |

In addition to the above analytical work, a total of 520 analyses were performed on various check sample programs. The check sample programs are vital and essential for maintaining the quality control, quality assurance, and accuracy of results. These check samples are also used to help develop new procedures.



# Plant Industry



G. Richard Wilson
Director

The Division of Plant Industry is responsible for ensuring consumers of disease free and pest free plants, grains, seeds, as well as properly labeled agricultural commodities, and the safe application of pesticides and farm chemicals.

### Entomological Activities

The Utah Department of Agriculture and Food currently administers nine insect and plant quarantines which require inspection and enforcement by the state entomologist. Effective enforcement, demands cooperation with federal agencies and regulatory officials of other states and countries. Quarantines currently in effect are for European Corn Borer, Gypsy Moth, Apple Maggot, Plum Curculio, Cereal Leaf Beetle, Pine Shoot Beetle, Japanese Beetle, Mint Wilt, and Karnal bunt.

During 1998, there were approximately 593 state and federal phytosanitary certificates issued under the direction of the state entomologist. These certificates allow shipments of plants and plant products to other states and foreign countries. The state entomologist also responded to more than 300 public requests for professional advice and assistance. Such assistance includes insect identification, news releases, control recommendations and participation in education meetings and workshops.

The state entomologist administers the Utah Bee Inspection Act (Title 4, Chapter 11), the Insect Infestation Emergency Control Act, and various entomological services under authority of Title 4, Chapter 2. Major functions performed during 1998 are summarized below:

### Apple Maggot and Cherry Fruit fly

The apple maggot survey and detection program in Utah requires the efforts of the state entomologist, one program supervisor, three field scouts and necessary secretarial help. The program was implemented to provide for our continued participation in export markets. In 1998 1,200 traps were used in the adult survey. Since the program's beginning in 1985, approximately 700 property owners are contacted annually on orchard spray management techniques and removal of uncared-for and abandoned orchards.

### Bee Inspection

The Utah Bee Inspection Act provides for inspection of all apiaries annually in order to detect and prevent the spread of infectious bee diseases. Without a thorough inspection program, highly contagious diseases could spread rapidly, resulting in serious losses to the bee industry in Utah with corresponding losses to fruit and seed crop producers who are dependant on bees for pollination. During 1998 35,000 colonies of bees were inspected with the incidence of disease below 3 percent.

### African Honey Bee

A survey and detection program for African Honey Bee has been in effect for the southern border areas of Utah since 1994. Early detection supported with information and education will be a major defense mechanism against this devastating and alarming insect.

### Cereal Leaf Beetle

Cereal leaf beetle was discovered in Morgan County in 1984. It has since been found in fourteen counties of northern Utah. Because cereal leaf beetle can cause a reduction in small grain production up to 75 percent, and domestic grain markets require insect free shipments, the Utah Department of Agriculture and Food in cooperation with Utah State University conducts an annual survey and detection program for this insect. A cooperative insectary program is also underway for this insect in Cache and Davis Counties.

### Gypsy Moth

Gypsy moths were first found in Salt Lake City in the summer of 1988. Since that time the Utah Department of Agriculture and Food has been the lead agency in the administration of a major bio-control program that has had a 95percent success rate. Moth catches have been reduced from 2,274 in 1989 to 32 in 1998. The major benefits of this program are:

1. Cost effectiveness
2. Public nuisance reduction
3. Forest and natural resource protection
4. Watershed protection.

Eradication efforts still show significant progress. A treatment program for Knudsens Corner and Wasatch Resort areas of Salt Lake County was completed in 1998. Trapping programs will remain vigorous.

### Cricket/Grasshopper

Because of the success with control programs for rangeland insects during 1989-97, the Utah Department of Agriculture and food was able to avoid all major insect control programs on rangeland during 1998, including Mormon Cricket.

The 1998 Fall Rangeland Insect Survey was completed the last week of August. Information from this survey indicates a significant number of acres (322,000 grasshoppers and 509,800 Mormon crickets) infested in1999.

### Fertilizer Program

Administration of the Utah Commercial Fertilizer Act (Title 4, Chapter 13). The program regulates the registration, distribution, sale, use, storage of fertilizer products. It regulates, and

license fertilizer blenders and monitors the applicators who spray or apply fertilizer and take samples for analysis.

Unwanted Pesticide Disposal Program

| Year | Participants | Disposal Amount/lbs |
|---|---|---|
| 1993 | 27 | 11,453 |
| 1994 | 36 | 17,487 |
| 1995 | 31 | 14,095 |
| 1996 | 27 | 12,334 |
| 1997 | 34 | 19,903 |
| 1998 | 31 | 26,244 |
| Total to date | 155 | 101,516 lbs. |

Second Year -- Tart Cherry Market Order

| | |
|---|---|
| Number individual participants in Cherry Diversion: | 48 |
| Number of packing plants in Plant Cherry Diversion: | 3 |
| Total pounds of tart cherries diverted: | 7,362,000 |
| Department participation: | 507 hours |

**Pesticide Product Registration Program**

Pesticide Activities for 1998

1. EMERGENCY USE PERMITS (Section 18).
   - 1993 - 3
   - 1994 - 4
   - 1995 - 2
   - 1996 - 1
   - 1997 - 1
   - 1998 - 1

2. SPECIAL LOCAL NEEDS (SLN).
   4 SLN labels filed in 1998.
3. EXPERIMENTAL USE PERMIT (EUP)
   1998 - 3

Pesticide Product Registration

| | |
|---|---|
| Number of pesticide manufacturers or registrants: | 748 |
| Number of pesticide products registered: | 8,689 |
| Number of new products registered as a results of investigation: | 339 |
| Number of violations of the Pesticide Act (violation of old products not wanting to register for current year): | 35 |
| Number of product registration requests by field representatives: | 78 |

**Pesticide Program**

The Utah Department of Agriculture and Food administers the Utah Pesticide Control Act which regulates the registration and use of pesticides in Utah. This Act authorizes pesticide registration requirements and the pesticide applicator certification program. The UDAF is also the lead state agency for pesticide use enforcement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The UDAF administers sections of FIFRA under which programs are developed and implemented by cooperative grant agreements with the Environmental Protection Agency (EPA). These programs include the Worker Protection Program, Endangered Species Program, Ground Water/Pesticide Protection Program, Certification Program, and Pesticide Use Enforcement.

**Worker Protection Program**

This program provides general training, worker and handler pesticide safety training, "train the trainer" program, training verification, outreach and communication efforts, reporting and tracking, and performance review actions. The UDAF has adopted the national Worker Protection Standards (WPS) Verification Program and distributes WPS Worker and Handler Verification cards to qualified WPS trainers.

**Endangered Species Pesticide Program**

The EPA's Office of Pesticide Programs provides for individual states to develop an Endangered Species Pesticide Plan. Utah's Threatened and Endangered Species/Pesticide Plan allows the state to provide protection for federally listed species from pesticide exposure while tailoring program requirements to local conditions and the needs of pesticide users. Utah's plan focuses on the use of pesticides as they relate to the protection of threatened and endangered species on private agricultural land and lands owned and managed by state agencies. The UDAF is the lead state authority responsible for administering the plan. Through an interagency review committee, special use permits or landowner agreements can be established to allow for the continued use of certain restricted pesticides for those locations that contain threatened and endangered species.

**Ground Water/Pesticide Protection Program**

The EPA is working with the UDAF to establish a Ground Water State Management Plan as a new regulatory mechanism under FIFRA to prevent pesticide contamination of the nation's ground water resources. The Utah Ground Water/Pesticide State Management Plan is a state program that has been developed through cooperative efforts of the UDAF with various federal, state, and local resource agencies. The plan includes an assessment of risks posed to the state's ground water by a pesticide and a description of specific actions the state will take to protect ground water resources from potentially harmful effects of pesticides.

**Certification Program**

The UDAF has entered into a cooperative agreement with EPA to undertake the following as part of the department's pesticide certification program: maintaining state certification programs, state coordination with Utah State University Extension Service, state evaluation and participation in training programs, conduct certification activities, maintain records for certified pesticide applicators, and monitor certification program efforts. The department develops and prepares pesticide applicator certification manuals and examinations as part of the licensing requirements of the state.

**Pesticide Use Enforcement**

The UDAF enforcement activities include the following: cancellation and suspension of pesticide products, general compliance monitoring, tracking, sample collection and analysis, enforcement response policy, ground water and endangered spe-

cies pesticide enforcement activities, and FIFRA section 19 (f) enforcement actions.

### Pesticide Activity

1. No. of inspections of pesticides sales establishments: 100
2. No. of physical pesticide samples collected: 26
3. No. of investigations of pesticide uses: 130
4. No. of violations: 21
5. No. of pesticide applicator training sessions: 25
6. No. of applicators certified Commercial, Non-Commercial, Private: 3,857
7. No. of pesticide dealers licensed: 109

### Seed Inspection and Testing

Administration of the Utah Seed Act (Title 4, Chapter 16) involves the inspection and testing of seeds offered for sale in Utah. Work performed in FY 1996-1997 is summarized below:

1. Number of seed samples tested: 2,035
2. Number of violations determined: 88

### Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technician conduct tests on seed samples submitted by agricultural inspectors, seed companies, and other interested parties. Most common tests include percent germinations, purity, and presence of noxious weeds, although a number of other tests are performed upon request. Inspectors monitor the seed trade by collecting representative samples for testing and by checking for proper labeling of all seed offered for sale and for the presence of noxious weeds and other undesirable factors.

### Noxious Weed Control Program

In administering the Utah Noxious Weed Control act (Title 4, Chapter 17), the State Weed Specialist coordinates and monitors Weed Control Programs throughout the State.

Approximately 1,206 visits and inspections were made by the thirteen agricultural field representatives located throughout the state. This includes visits and or direct contact with the agencies listed below:

1. Retail Establishments
2. Weed Supervisors and other County Officials
3. State Agencies
4. Federal Agencies
5. Utility Companies
6. Private Landowners
7. Hay and Straw Certification

### Control of Noxious Weeds

1. The Division Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives.
2. Surveys of serious weed infestations are conducted and control programs are developed through the county weed supervisors, county weed boards, and various landowning agencies.
3. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.
4. Noxious Weed Free Hay Certificates

### Activities in Hay and Straw Certification

Inspections in 24 counties.
Inspections for 104 producers.
Approximately 135,000+ bales inspected.
Number of Inspections: 138

### Commercial Feed Program

Administration of the Utah Commercial Feed Act, (Title 4, Chapter 12) involves inspection, registration, and sampling of commercial feed products. Activities performed in this program in 1997 are summarized below:

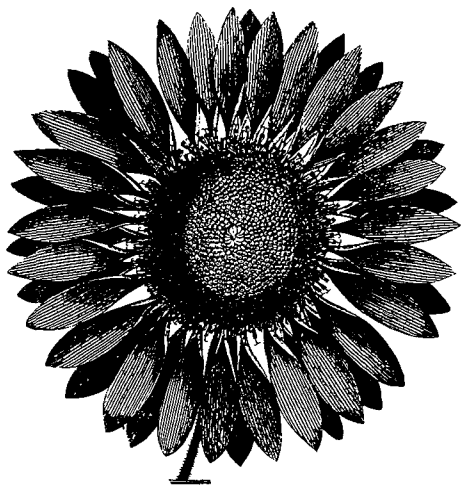
1. Number of feed manufacturers or registrants contacted: 540
2. Number of feed products registered: 5,858
3. Number of analysis requested of chem lab: 885
4. Number of feed samples collected and tested: 451
5. Number of violations: 52

### Grain Inspection

Grain inspection services are provided under authority of Title 4, Chapter 2, Section 2, and under designated authority by the Federal Grain Inspection Service. Following is a summary of work performed during the past fiscal year under dedicated credit provisions, with expenses paid by revenue received for grading services:

1. Number of samples: 14,438
2. Number of miscellaneous tests conducted: 26,429
3. Total number of activities performed: 40,867

NOTE: Volume of work is influenced each year by a number of factors, among which are weather conditions, governmental crop programs, and marketing situations.



# Regulatory Services

Kyle R. Stephens
Director

The mission of the Division of Regulatory Services is multi-faceted and we work diligently toward accomplishing the division's mission of ensuring:

Foods are safe, wholesome and sanitary
Food products are honestly, accurately and informatively represented products are in compliance with Utah's laws and regulations
Non-compliance is identified and corrected
Unsafe/unlawful products removed from the market
Consumers receive a fair price for the commodities being purchased

During 1998 an administrative rule was promulgated that gives the Division of Regulatory Services the ability to issue citations. Before a citation can be issued, the director will review the violations and determine if it warrants a fine. This new tool will assist in getting compliance in a more rapid manner for those issues that aren't critical, but are essential for compliance with the laws and rules.

**Food Compliance Program**

Improving Utah's food safety system is a major objective and concern for the department. Foodborne transmission of pathogenic and toxigenic microorganisms has been a recognized hazard for decades. Consumers understand the danger of botulism from canned goods and staphylococcus poisoning from potato salad. We have moved into a new era and now consumers are seeing illnesses from pathogens, such as E.coli 0157:H7 and Listeria monocytogenes. Dealing with these emerging pathogens requires a new regulatory approach.

In the past most of the food we ate at home was made from the basic food groups; milk, eggs, vegetables, meat, and flour. Now consumers are more interested in convenience and saving time. They eat a lot of processed foods and even ready-to-eat meals made at the grocery stores. As the types of food we eat change, the processes and packaging needed to bring these foods safely into the consumers home becomes more complex. These scientific challenges are being met by our Department by changing with the times.

Enhancing Utah's food safety programs to protect the consumer is a top priority for the Utah Department of Agriculture and Food (UDAF). On May 15, 1998, a new Food Protection Rule was adopted. This rule reflects the most current science and the best strategies available to ensure a safer food supply. This rule will promote uniformity for industry, and consistency/standardization between FDA, states, and local health departments involving both interstate and intrastate commerce. Utah adopted this up-to-date version of the 1997 FDA Model Food Code because it reflects input from industry and other regulatory agencies ensuring Utah products can move freely in commerce around the world. The process of adopting a rule of this depth and length is a major accomplishment.

Partnership and communication are very important. In this world of global commerce it is critical that we work together. For example, food imports have doubled in the last five years. Officials from local, state and federal agencies are actively engaged in designing a new and coordinated approach to the nation's food safety system. Developing and implementing a fully integrated food safety system will be a huge and complex project. This effort includes: joint planning, sharing resources, data and communication systems, enhancing the surveillance and detection of outbreaks, and educating the public in safe food handling practices. To accomplish this task six work groups were formed under the direction of the President's Food Safety Initiative. Utah is participating in this exciting project by co-chairing the Communication Work Group. Communication is a very important key to the success of this integrated system.

The Winter Olympics are coming in the year 2002 and this has the Department involved as a member of the Environmental and Public Health Alliance along with staff involvement in Food Safety Work Group of the Alliance. These committees are developing strategic plans that will ensure the protection of public health during the Olympics. These groups are composed of state, local and federal officials. Working together on these projects creates an awareness and appreciation for the roles and responsibilities of each agency. Building these networks of interdependence generates a synergistic effect that provides the public with a unified effort in protecting the food supply.

**Food Program -- 1988 Inspections**

| ESTABLISHMENT TYPE | NUMBER | INSPECTIONS |
|---|---|---|
| Bakeries | 356 | 645 |
| Grain Processors | 10 | 16 |
| Grocery Stores | 1,125 | 1,660 |
| Meat Departments | 315 | 563 |
| Food Processors | 396 | 579 |
| Warehouses | 279 | 325 |
| Water Facilities | 21 | 77 |
| TOTAL | 2,502 | 3,865 |

In order to protect the consumer, food that is suspected of being misbranded or adulterated is prevented from moving in commerce. This is achieved through Voluntary Hold Orders and Releases. In 1998, nine hold orders involving 16,739 pounds of food and two hold order releases involving 294 pounds of food were issued. During 1998, 23,991 pounds of food was voluntarily destroyed because it was suspected of adulteration.

When voluntary compliance cannot be achieved, we take additional regulatory action in the form of Warning Notices and Administrative Action. In 1998, we sent out 72 warning notices concerning non-compliance with the Utah Wholesome Food Act (WHF) and the Utah Food Protection Rule (FSR).

Utah's coordinated approach to assessing food safety consists of prioritization and risk reduction. To be effective in the arena of a constantly evolving food system, we are focusing on building networks to ensure we have a seamless food safety program in place.

### Egg & Poultry Grading Program

The Egg & Poultry Grading Program provides needed services to the egg and poultry industry and the consumers of Utah. Eggs are a valuable food produced for the consumer, are highly nutritious, and are an important part of our diet. Eggs are a potentially hazardous product and require special processing and handling. The various program activities include:

Shell Egg Grading Retail Egg Grading Fee Grading
Shell Egg Surveillance Egg Products Inspection Poultry
Grading USDA Destination Poultry Grading
(School Lunch Program)

Shell eggs are inspected at both wholesale and retail establishments for wholesomeness, grade and size. Grading standards have been established that allow the sale of eggs. The Utah Shell Egg Law provides authority for checking the eggs to meet these standards. Utah adopts USDA Egg, Egg Product and Poultry Standards. Grading standards must be followed because approximately 10 percent of nest run eggs fall in the restricted category — they are: checks, leakers, loss and dirties. Without egg grading, the percentage of restricted eggs in the carton increases and eggs would not meet standards established to protect consumers.

USDA egg grading is a program made available by the U. S. Department of Agriculture to egg plants who want their eggs to bear the USDA grade shield. This grading service is provided on a voluntary basis to those who request it and pay for such services. We administer this service using licensed department employees, USDA standards, regulations and supervision.

In calendar year 1998, there were 163,187 cases (30 dozen eggs per case) of eggs graded in the State of Utah. Of these, 493 cases were embargoed due to excess restricted eggs or being below USDA standards. The low percentage of embargoed eggs on the retail level indicates the high degree of compliance to the Shell Egg Law in the marketplace.

The Egg Products Inspection Act outlines the requirements for egg handlers and producers. Utah currently has one egg breaking plant which is under continuous inspection. Egg breaking plants are inspected to see that eggs are properly received, refrigerated, washed, candled, sanitized, properly broken, pasteurized, formulated and packaged under the safe, clean, sanitary conditions that meet USDA standards and regulations. Egg products consist of dried, liquid and frozen eggs. Egg products are used extensively in the food industry in the production of bakery items, pasta products, ice cream, egg nog, etc. and is used by restaurants and institutions in meals.

In 1998, there were 79,910 cases of eggs broken and pasteurized. This was nearly a 50 percent increase over 1997.

The Shell Egg Surveillance Program requires egg producers and handlers to be registered with USDA and licensed personnel conduct quarterly visits. The primary purpose of these inspections is to survey compliance to the Federal Egg Products Inspection Act. The law covers the handling and disposition of restricted eggs—checks, leakers, loss eggs (such as bloods and rots), inedible eggs and dirties. Leakers, loss and inedible eggs must be denatured, destroyed or diverted to animal feed.

Poultry grading involves the Utah turkey industry, which is a major turkey producing state. Poultry grading is a voluntary program paid for by industry. Graders from the section, who are licensed by USDA, provide grading services at the plants. Grading on whole birds and parts provide consumers with products meeting USDA quality standards. Poultry grading also involves destination grading for poultry used in federal food programs, such as school lunch, military and export activities.

In 1998, the graders at Moroni and Salina were responsible for grading 107,391,743 pounds of live turkeys. Production in 1999 is projected to see a slight increase.

There are two turkey plants in Utah located at Moroni and Salina. Both plants have expanded facilities for increased value-added processing. This expansion will increase the production of both plants and increase grading activities.

During 1998 we saw many changes in the egg and poultry program. Industry was involved in a major Salmonella Enteriditis incident in 1997. This situation heightened our awareness of the need to improve our communication and involvement with all affected entities. As a result, a unique partnership, known as the Utah Egg Quality Assurance Plan was negotiated and signed on March 11, 1998. This partnership involves FDA, USDA, Utah Department of Agriculture and Food, Utah Department of Health and the Utah Egg Industry. The partnership outlines a coordinated approach for addressing critical food safety concerns such as S.E.

Delta Egg Farms is under construction and has 150,000 birds ready for production. We will see the need for a part-time shell egg grader and possibly two or more full-time graders for the Delta operation in 1999.

### Bedding, Upholstered Furniture & Quilted Clothing

The purpose of the Bedding, Upholstered Furniture and Quilted Clothing Program is to protect consumers against fraud and product misrepresentation, to assure Utahns hygienically clean products and to provide allergy awareness when purchasing these articles. Utah law requires manufacturers, supply dealers, and wholesalers of these products, and components used to make or repair such products, to obtain an annual license from the UDAF for their particular type of business before offering products for sale within the state.

Product labels are required to list the enclosed fibers and their percentages. This enables consumers to make price/value/performance-based buying decisions.

As of August 20, 1998, the Federal Trade Commission (FTC) rescinded their guides for the feather and down products industry. These guides addressed claims for the advertising, labeling, and sale of products wholly or partially filled with feathers or

down and all bulk stocks of processed feathers or down intended for use in manufacturing bedding and clothing. The Federal Register dated August 20, 1998, lists several reasons for the recission including: that the guides didn't seem to be working as intended to promote truth in labeling and advertising; the tolerances in the guides appear to have become the industry manufacturing standard, not a margin for error. Feather and down-filled products will now come under the Truth in Advertising requirements without additional tolerances. The 1999 Conference of the Association of Bedding and Furniture Law Officials (ABFLO) will address this situation and try to establish a uniform state approach which will assist manufacturers in production that meets the requirements of all the states.

The Department works with industry representatives and with regulatory officials from other states to establish uniformity in nomenclature, labeling, and standards for these products. License fees fund an inspection program which allows products to be tested to ensure contents are accurately labeled. During 1998, 1325 licenses generated $69,000 in general revenue making the program self-sustaining.

**Food Labeling**

The State of Utah has adopted labeling regulations as set forth in the Code of Federal Regulations (CFR) and reviews labels to assist manufactures to comply with these regulations. This avoids costly reprinting in the case of labeling violations, and helps assure that consumers get complete and accurate information in a uniform format on all products.

Proper labeling of food ingredients is a vitally important issue to consumers who have food sensitivities or other dietary restrictions. Reports of allergic reactions to incompletely or incorrectly labeled foods continue to increase. The U S Food and Drug Administration (FDA) has participated in many food product recalls during the year when foods were discovered to contain unlabeled ingredients which are known allergens. After the label corrections have been made, the foods may be returned to the marketplace.

Label laws and rules continue to change as new technology creates new products and as new food safety issues are identified. In July of 1998, FDA issued a rule requiring warning statements be labeled on juices that have not been specifically processed to prevent, reduce, or eliminate the presence of pathogens. FDA took that action to inform consumers, particularly those at greatest risk, of the hazard posed by such products, and hopefully reduce the incidence of foodborne illness and deaths caused by the consumption of unprocessed juices.

The rule on labeling of dietary supplements, published on September 23, 1997, became effective on March 23, 1999. This rule establishes requirements for the identification of supplements and for their nutrition and ingredient labeling.

Correct and complete food labels help to protect consumers and contribute to a safe and healthful food source for all of us. However, consumers are still ultimately responsible for reading and understand the label and make choices based on their personal needs.

**Weights & Measures**

During the first six months of 1998 a review team was chartered to analyze various aspects of the program and assess the program's real capabilities and future direction. As a result of this review team and the recommendations generated, several things were accomplished. Workloads were balanced and specialized areas, where cross-utilization can be used, were identified to accomplish more when seasonal changes come about. An effective way to monitor and respond to consumer complaints was improved to provide better customer service. And a recommendation was made to pursue an approach to inspections that utilizes laptop computers and a weights and measures software program known as WINWAM. The division will be pursuing this recommendation during 1999.

One of the weights and measures staff received specialized training on scanner inspections at the Office of Weights and Measures headquarters in Maryland during the early part of 1998. The staff then coordinated the program here in Utah and participated in the national survey that was conducted by NIST and the FTC. As a result of these activities we have refocused our efforts and direction for the future.

The Weights & Measures Program operates in the following areas:

*General Inspections*

Our five inspectors checked the following in 1998:
Small capacity scales (0 to 49 lbs.) 4,945
Medium capacity scales (50 to 999 lbs.)1,189
Motor fuel dispensing pumps12,368
Package checking 27,564
Scanner Checking 16,984
Motor fuel tanks 1,808

*Large Capacity Scales*

There are three inspectors involved in testing large capacity scales (1000 lbs. and up). These devices may include scales used for weighing livestock, coal, gravel, vehicles, etc., with inspections conducted at auction yards, ranches, ports of entry, mines, construction sites, gravel pits and railroad yards, etc. A total of 1,214 large capacity scale inspections were conducted in 1998.

*L P Gas Meters* - In 1998 there were 264 propane meters inspected throughout the state. *Large Capacity Petroleum and Water Meters* Inspections are conducted on airport fuel trucks, all fuel delivery trucks, cement batch plant water meters and other large meters. During 1998, there were 294 inspections conducted.

*Metrology Laboratory* The metrology lab houses the primary weight, length and volume standards for the State of Utah and the State Metrologist conducts all of the weights and measures certification for compliance with the state standards.

*Motor Fuel Laboratory* Motor fuel quality continues to be a major issue with the citizens of the state. During 1998, our efforts for testing motor fuel quality were enhanced with upgrading the testing equipment in the laboratory and refining methods to respond to consumer complaints. The program was also able to purchase an FTIR Analyzer that gives us the capabilities to detect foreign matter and contaminants in motor fuel products.

As population and industry growth continues, so does the need for business and associated industry. Along with that comes the increased need to provide weights and measures inspection service to those affected. Our goal is to be success in increasing our productivity without adding additional personnel, which at the same time meeting the demands of a growing program.

### Meat Compliance

The Meat Compliance Program goal is to control and limit the movement in commerce, of adulterated or misbranded meats. An additional goal is to provide accurate information concerning complex meat laws to all who are involved in any way with meat and poultry products.

Meat related businesses are adjusting to implementation of HACCP, Hazard Analysis and Critical Control Points. Small plants in the State of Utah are gearing up for full implementation by early next year. The Utah Department of Agriculture and Food has been pro-active in the training and orientation of plant owners to the new regulations. The Utah plants are doing very will with the preliminary study and should be ready for the real HACCP verification process in several months. During the year over 100 samples have been tested. We are now working on protocol for testing, apple juice, milk, milk products and meat. This technology will allow the department to respond to consumer needs and expectations.

The changing environment of food protection has caused other areas of concern. As a State agency operating under a mandate from the federal government, we often find it hard to consistently apply the regulations. The advent of a global marketplace and rapid transportation between states and countries has exposed glaring inconsistency between international standards and even interstate standards and interpretation of the law among the many states. This confusion makes regulation hard on both the regulated business and the regulatory agency. Currently we are seeking clarification on several issues, including: The amenability of central kitchens to full time inspection and the application of labels on food storage products and imported meat products. We still struggle with label definitions of ground beef. In addition the phenomenal growth of the Internet, come the marketing of meat products from famous restaurants throughout the country. The shipment of meat entrees through common carriers to private citizens has long been considered a violation of the Meat and Poultry Inspection Act. Currently the Internet is ripe with interstate sale of rib, steaks, jerky and other meat food products. Utah is taking measured response to these matters. We are committed to food safety and will not allow dangerous practices to continue but we are holding up judgement of non food safety-related matters. We are proud of our common sense approach to industry regulation.

During the calender year 1998 the Meat Compliance Program conducted 1663 random reviews of state businesses and 30 planned compliance review of previous violators of meat laws. In addition 90,530 pounds of adulterated or misbranded meats were embargoed or destroyed. Compliance investigations resulted in 22 letters of warning being issued and one informal administrative hearing with fines of $500.. Compliance officers collected more than 400 ground beef samples. The State Chemist tested the samples for fat, sulfites, other species and added water the results showed a high degree of compliance.

### Dairy Compliance

The primary goal of the Dairy Compliance program is to provide effective public health control throughout the production, handling, processing and distribution of milk and milk products in order to facilitate the shipment and acceptance of high sanitary quality milk and milk products.

The number of permitted dairy producers continued to decline in 1998. The total number of producer permits declined by 10 percent, the same as in 1997. More important, the number of permitted dairies has declined by 32 percent over the past five years. We are currently providing inspection to 388 Grade A producers compared to 413 last year. The number of Manufacturing Grade producers dropped to 98 down from 113 in 1997 and the number of processing facilities from 44 to 41.

It is the policy of the Dairy Compliance Program to seek voluntary compliance whenever possible. However, when voluntary compliance cannot be achieved, regulatory action is initiated. In all, 2062 inspections were conducted; 82 permits were suspended and approximately 1.7 million pounds of adulterated and misbranded products were removed from commerce by Utah compliance officers.

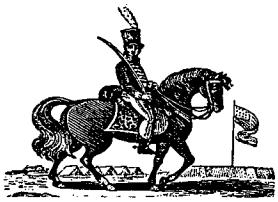
We are in the third year of our partnership agreement with FDA. This cooperative program is based on the inspection activities by our staff of non-IMS processors in Utah, (those processors not under the direction of the National Conference on Interstate Milk Shipments). As provided in the agreement FDA accepts our inspection in lieu of FDA performing the inspections, eliminating costly duplication. We conducted approximately 101 inspections during 1998 and provided the information to FDA for further review.

For more than 25 years federal and state regulatory agencies have focused on cleaning up industrial type water pollution. That focus has expanded to include non-point source pollution, such as agricultural waste. Many states face court mandates that force dairy farmers as well as other farm operations to reduce potential pollution problems by controlling animal wastes. Utah is moving quickly to develop watershed protection strategies for non-point source pollution. Utah's major farm and ranch organizations, with government agencies have joined forces in an industry-wide effort to maintain local control of water quality in Utah. The future of dairy operations in many areas of Utah will be determined by how well the agricultural community addresses this issue.

### Administrative Orders

The administrative hearing program of the department is assigned to this division. The overall approach of the department is to gain voluntary compliance to violations of the Utah Agricultural Code. When that is not accomplished, the department initiates notices of violation and provides opportunity for a hearing. During 1998, we conducted nine informal hearings and issued an administrative order or settlement agreement on all cases. This resulted in $24,900 in civil penalties levied against Utah businesses.

Administrative procedures are an effective tool in gaining compliance without going through the legal system, but still affording individuals and companies their due process rights.



# Utah Horse Industry

*Horses have always played an important role in the economy of Utah and the United States. The following information is a summary of a 1994 report on Utah's horse populations compiled by E. Bruce Godfrey, professor of economics at Utah State University. The information was collected from a questionnaire distributed to 2,500 residents.*

Early in the history of Utah horses and other equine were a major source of power and beasts of burden.

Horse populations on farms in the United States have steadily declined in the years from 1930 to 1960. Since then, horse ownership apparently has increased especially among non-farmers, although few data are available concerning horse ownership by non-farmers.

Most horse owners are located along the Wasatch Front where most of Utah's population is located. More than 60 percent of the horses are owned by people who live in Salt Lake, Utah, Weber, Davis, Cache, and Box Elder Counties. The large number of households in the urban counties resulted in a concentration of horse numbers in these counties, even though the number of horses owned per household was smaller in urban than rural counties.

### Income and Profession

Households who own horses in Utah had relatively high incomes. The percentage of horse owners with low incomes (less than $20,000) was smaller than the general population, and the percentage of people in the upper income groups (above $50,000) was higher than the general population.

More than 40 percent of the respondents were college graduates. Seventeen percent have an advanced college degree.

Horse owners in Utah are apparently one family-or-urban-oriented. Nearly two-thirds of respondents to the survey indicated they were a "family pleasure horse" operation.

Most horse owners in Utah keep their animals on lands they own. Only 25 percent kept their animals on someone else's property. Most of the "farms and ranches" were not large.

While most owners were fairly young, 71 percent of respondents stated they owned horses for more than ten years.
While families own the largest portion of horses in Utah, commercial operations own a greater number per unit.

### Economic Importance

Since most horses in Utah are kept for pleasure-use, their individual economic impact is quite small. Yet the revenue from associated services is measured in the millions of dollars.

Horse owners spend more than $775 per year in feed, medical bills, boarding, and other needs in order to maintain their animals. This generates an estimated $156 million on Utah's herd of 182,700 horses. Other capital costs for barns, corrals and tack are estimated at more than $560 million dollars.
Owners placed an average value on their animals at $1,600 each, for an aggregate value of nearly $293 million statewide.

### Numbers of Animals

Horses were located in every area and county of the state, but the number of animals has changed over time. There were about 133,000 head in 1975. Since then, the population in Utah has increased by about a half million people, and a larger portion of Utahns live in the urban counties along the Wasatch Front. This change in population may or may not have altered horse numbers in Utah.

Responses to the questionnaire indicated that 8.7 percent of the households had equine (horses, mules and donkeys), which would represent about 48,100 households (552,500 households times 8.7 percent) in the state. The average household owned an average of 3.80 equine on Jan. 1, 1992, which would mean that there were approximately 182,700 equine in Utah at the start of 1992.

Horse ownership in the United States probably peaked in the late 1980s. Data from the Utah Department of Agriculture and Food also suggest that the inspection of horses at auction yards peaked in FY 1989-90.

### Breeds

Quarter horses dominated the horse population in Utah. Other popular breeds are listed below:

| Breed/Type | Grade | Registered | Total | Percent |
|---|---|---|---|---|
| Quarter Horse | 32,400 | 58,700 | 91,100 | 49.78 |
| Arabian | 4,800 | 20,800 | 25,600 | 13.99 |
| Paint | 7,050 | 6,350 | 13,400 | 7.32 |
| Thoroughbred | 900 | 12,400 | 13,300 | 7.27 |
| Appaloosa | 4,750 | 4,200 | 8,950 | 4.89 |
| Mules | 3,500 | 0 | 3,500 | 1.91 |

### Uses/Interests

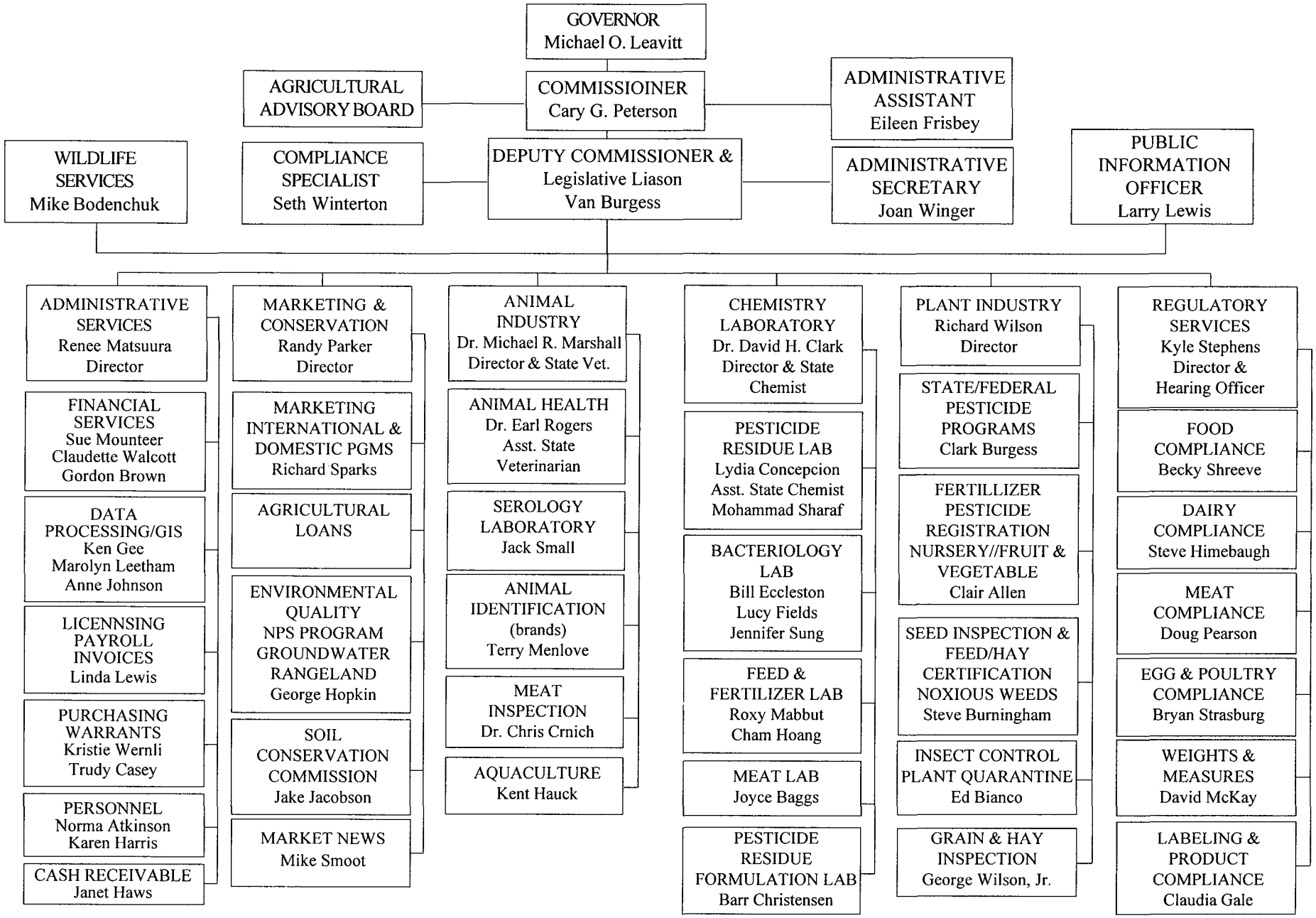
Pleasure riding was clearly the primary interest of horse owners. Pleasure riding, youth activities, and hunting activities that received the highest rankings, are activities that could be considered family related.

### Income

Less than 5 percent of respondents indicated that they received any income from the horses they owned. Thus, horses apparently generated relatively little income, primarily because horses were largely used for pleasure-related activities. The primary group who earned any horse-related income did so from breeding, racing and show-related activities.

One activity that generated income and primarily involved Utah horses was breeding. About 90 percent of the stallions in the state were used for breeding and the average stud fee was just over $400. This yielded an estimated total income of nearly $5 million (for information on horse racing in Utah, see Marketing and Conservation in this annual report).

# UTAH DEPARTMENT OF AGRICULTURE AND FOOD
# ORGANIZATIONAL CHART



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notes

## Area & Population of Counties, Utah

| County | United States Census - 1990 | | | | | | | | July 1, 1998 Est. 1/ |
|---|---|---|---|---|---|---|---|---|---|
| | Total Land Sq Miles | Total Population | Urban | | Rural | | | | |
| | | | Total Urban | Percent of Total | Total Rural | Percent of Total | Total Farm | Percent of Total | |
| Beaver | 2,590 | 4,765 | | | 4,765 | 100.0 | 87 | 1.8 | 5,678 |
| Box Elder | 5,724 | 36,485 | 19,852 | 54.4 | 16,633 | 45.6 | 1,328 | 3.6 | 40,996 |
| Cache | 1,165 | 70,183 | 55,232 | 78.7 | 14,951 | 21.3 | 1,429 | 2.0 | 86,240 |
| Carbon | 1,479 | 20,228 | 8,727 | 43.1 | 11,501 | 56.9 | 183 | 0.9 | 21,547 |
| Daggett | 698 | 690 | | | 690 | 100.0 | 119 | 17.2 | 713 |
| Davis | 305 | 187,941 | 186,544 | 99.3 | 1,397 | 0.7 | 154 | 0.1 | 229,529 |
| Duchesne | 3,238 | 12,645 | 3,915 | 31.0 | 8,730 | 69.0 | 1,239 | 9.8 | 14,376 |
| Emery | 4,452 | 10,332 | | | 10,332 | 100.0 | 414 | 4.0 | 10,939 |
| Garfield | 5,175 | 3,980 | | | 3,980 | 100.0 | 142 | 3.6 | 4,517 |
| Grand | 3,682 | 6,620 | 3,971 | 60.0 | 2,649 | 40.0 | 102 | 1.5 | 8,887 |
| Iron | 3,299 | 20,789 | 13,443 | 64.7 | 7,346 | 35.3 | 176 | 0.8 | 30,477 |
| Juab | 3,392 | 5,817 | 3,515 | 60.4 | 2,302 | 39.6 | 193 | 3.3 | 7,978 |
| Kane | 3,992 | 5,169 | 3,148 | 60.9 | 2,021 | 39.1 | 62 | 1.2 | 6,155 |
| Millard | 6,590 | 11,333 | 2,998 | 26.5 | 8,335 | 73.5 | 598 | 5.3 | 12,054 |
| Morgan | 609 | 5,528 | | | 5,528 | 100.0 | 214 | 3.9 | 7,086 |
| Piute | 758 | 1,277 | | | 1,277 | 100.0 | 84 | 6.6 | 1,583 |
| Rich | 1,029 | 1,725 | | | 1,725 | 100.0 | 87 | 5.0 | 1,791 |
| Salt Lake | 737 | 725,956 | 721,342 | 99.4 | 4,614 | 0.6 | 73 | 2/ | 837,710 |
| San Juan | 7,821 | 12,621 | 3,162 | 25.1 | 9,459 | 74.9 | 45 | 0.4 | 13,457 |
| Sanpete | 1,588 | 16,259 | 3,363 | 20.7 | 12,896 | 79.3 | 380 | 2.3 | 21,244 |
| Sevier | 1,910 | 15,431 | 5,593 | 36.2 | 9,838 | 63.8 | 225 | 1.5 | 18,629 |
| Summit | 1,871 | 15,518 | 4,468 | 28.8 | 11,050 | 71.2 | 440 | 2.8 | 25,630 |
| Tooele | 6,946 | 26,601 | 18,174 | 68.3 | 8,427 | 31.7 | 254 | 1.0 | 33,569 |
| Uintah | 4,477 | 22,211 | 9,242 | 41.6 | 12,969 | 58.4 | 893 | 4.0 | 24,436 |
| Utah | 1,998 | 263,590 | 244,834 | 92.9 | 18,756 | 7.1 | 1,539 | 0.6 | 340,816 |
| Wasatch | 1,181 | 10,089 | 4,782 | 47.4 | 5,307 | 52.6 | 183 | 1.8 | 13,653 |
| Washington | 2,427 | 48,560 | 35,898 | 73.9 | 12,662 | 26.1 | 89 | 0.2 | 78,605 |
| Wayne | 2,461 | 2,177 | | | 2,177 | 100.0 | 146 | 6.7 | 2,437 |
| Weber | 576 | 158,330 | 147,172 | 93.0 | 11,158 | 7.0 | 807 | 0.5 | 182,506 |
| State Total | 82,168 | 1,722,850 | 1,499,375 | 87.0 | 223,475 | 13.0 | 11,685 | 0.7 | 2,083,238 |

1/ Preliminary, State Office of Planning and Budget, State of Utah. 2/ Less than 0.1 percent of total county population.

## Farm Population vs. Total Population, Utah, 1930-1990 Census

| Year | Total Population | Farm Population | |
|---|---|---|---|
| | | Number | Percent of Total |
| | 1,000 | | Percent |
| 1930 | 508 | 116 | 22.8 |
| 1940 | 550 | 105 | 19.1 |
| 1950 | 689 | 81 | 11.8 |
| 1960 | 891 | 65 | 7.3 |
| 1970 | 1,059 | 38 | 3.6 |
| 1980 1/ | 1,461 | 24 | 1.7 |
| 1980 2/ | 1,461 | 18 | 1.3 |
| 1990 2/ | 1,723 | 12 | 0.7 |

1/ Farm definition: 10 or more acres with annual sales of Agricultural products of $50 or more; or less than 10 acres with annual sales of $250 or more. 2/ Farm definition: A place with annual sales of $1,000 or more.

## Ranking: Utah's Rank and United States Total, Top Six States, by Agricultural Category

| Top Six States | | | | | | Utah's Rank | United States Total |
|---|---|---|---|---|---|---|---|
| First | Second | Third | Fourth | Fifth | Sixth | | |
| | | | ***GENERAL*** | | | | |
| ***Number of Farms & Ranches, 1998*** | | | | | | | |
| TX | MO | IA | TN | KY | CA | **36** | |
| 226,000 | 110,000 | 97,000 | 91,000 | 90,000 | 89,000 | **15,000** | 2,191,510 |
| ***Land in Farms & Ranches, 1998 (1,000 Acres)*** | | | | | | | |
| TX | MT | KS | NE | NM | SD | **26** | |
| 131,500 | 57,500 | 47,500 | 46,400 | 45,300 | 44,000 | **11,600** | 953,765 |
| ***Cash Receipts from Farm Marketings, 1997 (1,000 Dollars) 1/*** | | | | | | | |
| CA | TX | IA | NE | IL | KS | **37** | |
| 25,289,054 | 13,460,836 | 12,840,692 | 10,092,232 | 9,276,040 | 9,001,475 | **952,959** | 208,664,538 |
| | | | ***FIELD CROPS*** | | | | |
| ***Harvested Acreage Principal Crops, 1998 (1,000 Acres) 2/*** | | | | | | | |
| IA | IL | KS | ND | MN | NE | **35** | |
| 24,688 | 23,552 | 22,143 | 20,131 | 19,990 | 18,565 | **1,047** | 310,847 |
| ***Corn for Grain Production, 1998 (1,000 Bushels)*** | | | | | | | |
| IA | IL | NE | MN | IN | OH | **39** | |
| 1,769,000 | 1,473,450 | 1,239,750 | 1,032,750 | 760,350 | 470,940 | **3,384** | 9,761,085 |
| ***Corn for Silage Production, 1998 (1,000 Tons)*** | | | | | | | |
| WI | CA | NY | PA | MN | IA | **27** | |
| 10,585 | 8,875 | 8,800 | 7,840 | 7,600 | 4,125 | **777** | 94,525 |
| ***Barley Production, 1998 (1,000 Bushels)*** | | | | | | | |
| ND | ID | MT | WA | MN | CO | **10** | |
| 106,150 | 59,280 | 57,600 | 33,800 | 22,825 | 9,430 | **7,055** | 352,445 |
| ***Oats Production, 1998 (1,000 Bushels)*** | | | | | | | |
| ND | SD | MN | WI | IA | PA | **29** | |
| 26,040 | 20,100 | 19,530 | 18,300 | 10,915 | 8,480 | **630** | 167,122 |
| ***All Wheat Production, 1998 (1,000 Bushels)*** | | | | | | | |
| KS | ND | OK | MT | WA | TX | **28** | |
| 494,900 | 310,650 | 198,900 | 168,790 | 157,425 | 136,500 | **8,834** | 2,550,383 |
| ***Other Spring Wheat Production, 1998 (1,000 Bushels)*** | | | | | | | |
| ND | MT | MN | SD | ID | WA | **9** | |
| 211,200 | 108,000 | 78,720 | 59,200 | 39,270 | 20,925 | **1,334** | 528,709 |
| ***Winter Wheat Production, 1998 (1,000 Bushels)*** | | | | | | | |
| KS | OK | TX | WA | CO | NE | **27** | |
| 494,900 | 198,900 | 136,500 | 136,500 | 99,450 | 82,800 | **7,500** | 1,880,605 |
| ***All Hay Production, 1998 (1,000 Tons)*** | | | | | | | |
| SD | CA | KS | MO | NE | MN | **24** | |
| 8,160 | 8,115 | 8,020 | 7,703 | 7,680 | 7,110 | **2,778** | 151,338 |
| ***Alfalfa Hay Production, 1998 (1,000 Tons)*** | | | | | | | |
| CA | SD | MN | WI | NE | ID | **15** | |
| 6,630 | 5,760 | 5,580 | 5,320 | 5,250 | 4,859 | **2,398** | 82,010 |
| ***All Dry Edible Beans Production, 1998 (1,000 Cwt)*** | | | | | | | |
| ND | MI | NE | CO | MN | ID | **17** | |
| 9,798 | 4,425 | 3,666 | 2,868 | 2,538 | 2,112 | **30** | 30,828 |
| ***All Potato Production, 1998 (1,000 Cwt)*** | | | | | | | |
| ID | WA | WI | ND | CO | OR | **30** | |
| 139,650 | 93,225 | 30,895 | 28,670 | 28,230 | 26,229 | **728** | 477,754 |

1/ In accordance with USDA, ERS Ranking of States and Commodities by Cash Receipts, 1995. 2/ Crop acreage included are corn, sorghum, oats, barley, wheat, rice, rye, soybeans, peanuts, sunflowers, cotton, all hay, dry edible beans, potatoes, tobacco, sugarcane, and sugar beets.

## Ranking: Utah's Rank and United States Total, Top Six States, by Agricultural Category

| Top Six States | | | | | | Utah's | United States |
|---|---|---|---|---|---|---|---|
| First | Second | Third | Fourth | Fifth | Sixth | Rank | Total |
| | | | ***FRUITS & VEGETABLES*** | | | | |
| ***Apple Utilized Production, All Commercial, 1998 (1,000 Lbs)*** | | | | | | | |
| WA | NY | MI | CA | PA | VA | **22** | |
| 5,900,000 | 1,010,000 | 930,000 | 800,000 | 404,000 | 268,000 | **31,000** | 10,597,200 |
| ***Apricot Utilized Production, 1998 (Tons)*** | | | | | | | |
| CA | WA | UT | | | | **3** | |
| 102,600 | 5,100 | 180 | -- | -- | -- | **180** | 107,880 |
| ***Peach Utilized Production, Freestone, 1998 (1000 Lbs)*** | | | | | | | |
| CA 1/ | SC | NJ | GA | PA | WA | **22** | |
| 707,300 | 105,000 | 68,000 | 65,000 | 65,000 | 51,000 | **7,000** | 1,320,200 |
| ***Pear Utilized Production, 1998 (Tons)*** | | | | | | | |
| WA | CA | OR | NY | PA | MI | **9** | |
| 365,000 | 288,000 | 244,600 | 10,000 | 6,100 | 4,800 | **870** | 923,895 |
| ***Sweet Cherry Utilized Production, 1998 (Tons)*** | | | | | | | |
| WA | OR | MI | CA | UT | ID | **5** | |
| 96,000 | 54,500 | 33,000 | 15,400 | 2,700 | 2,070 | **2,700** | 206,610 |
| ***Tart Cherry Utilized Production, 1998 (1,000 Lbs)*** | | | | | | | |
| MI | UT | WI | WA | NY | OR | **2** | |
| 229,000 | 27,000 | 14,100 | 14,000 | 12,200 | 4,400 | **27,000** | 306,100 |
| ***Onion Production, Summer Storage, 1998 (1,000 Cwt)*** | | | | | | | |
| CA 2/ | WA | OR | CO | ID | NY | **9** | |
| 13,200 | 9,750 | 9,420 | 6,080 | 4,640 | 3,750 | **1,056** | 50,182 |
| | | | ***LIVESTOCK, MINK, & POULTRY*** | | | | |
| ***All Cattle & Calves, January 1, 1999 (1,000 Head)*** | | | | | | | |
| TX | NE | KS | OK | CA | MO | **35** | |
| 14,000 | 6,650 | 6,550 | 5,200 | 5,000 | 4,400 | **890** | 98,521.5 |
| ***Beef Cows, January 1, 1999 (1,000 Head)*** | | | | | | | |
| TX | MO | NE | OK | SD | MT | **28** | |
| 5,530 | 2,065 | 1,938 | 1,858 | 1,658 | 1,532 | **335** | 33,472.3 |
| ***Breeding Hogs, December 1, 1998 (1,000 Head)*** | | | | | | | |
| IA | NC | MN | IL | IN | NE | **20** | |
| 1,260 | 1,000 | 620 | 530 | 450 | 420 | **60** | 6,672 |
| ***Honey Production, 1998 (1,000 Lbs)*** | | | | | | | |
| CA | ND | FL | SD | MT | MN | **22** | |
| 37,350 | 29,440 | 22,540 | 21,375 | 14,030 | 11,060 | **1,740** | 220,311 |
| ***Mink Pelt Production, 1997 (Pelts)*** | | | | | | | |
| WI | UT | MN | OR | ID | IA | **2** | |
| 701,400 | 670,000 | 310,200 | 244,000 | 189,000 | 122,000 | **670,000** | 2,843,800 |
| ***All Sheep, January 1, 1999 (1,000 Head)*** | | | | | | | |
| TX | CA | WY | CO | SD | UT | **6** | |
| 1,350 | 810 | 660 | 440 | 420 | 400 | **400** | 7,237.5 |
| ***Chickens, Layers Inventory, December 1, 1998 (1,000 Head)*** | | | | | | | |
| OH | CA | IA | PA | IN | GA | **33** | |
| 28,507 | 25,908 | 25,135 | 22,655 | 22,200 | 21,549 | **1,830** | 320,694 |
| ***Milk Cow Inventory, January 1, 1999 (1,000 Head)*** | | | | | | | |
| CA | WI | NY | PA | MN | TX | **23** | |
| 1,440 | 1,370 | 702 | 619 | 545 | 340 | **95** | 9,143.1 |
| ***Trout Sold, August 31, 1998 (Value 000)*** | | | | | | | |
| ID | NC | CA | PA | WI | MA | **12** | |
| 30,866 | 8,389 | 6,545 | 5,420 | 2,599 | 2,578 | **1,511** | 78,911 |

1/ freestone 2/ Includes fresh and processing onions.

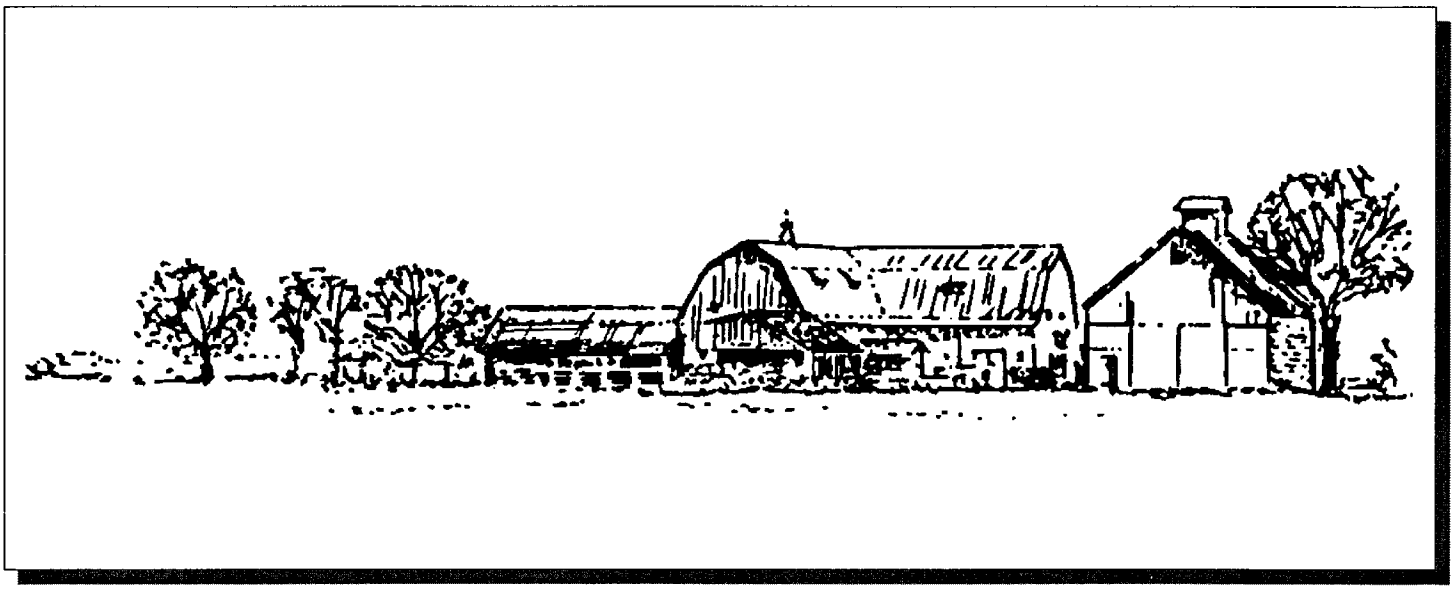
# Record Highs and Lows: Acreage, Yield, and Production of Utah Crops

| Item | Quantity Unit | Record High | | Record Low | | Year Record Started |
|---|---|---|---|---|---|---|
| | | Quantity | Year | Quantity | Year | |
| ***Corn for Grain*** | | | | | | |
| Acres Harvested | 1,000 Acres | 24 | 1918, 92, 98 | 2 | 1963, 66 | 1882 |
| Yield | Bushels | 147.0 | 1997 | 14.7 | 1889 | |
| Production | 1,000 Bushels | 3,384 | 1998 | 85 | 1934 | |
| ***Corn for Silage*** | | | | | | |
| Acres Harvested | 1,000 Acres | 80 | 1975, 76 | 2 | 1920, 22 | 1919 |
| Yield | Tons | 23.0 | 1997 | 6.0 | 1934 | |
| Production | 1,000 Tons | 1,501 | 1980 | 17 | 1921 | |
| ***Barley*** | | | | | | |
| Acres Harvested | 1,000 Acres | 190 | 1957 | 8 | 1898 | 1882 |
| Yield | Bushels | 88 | 1995 | 22.0 | 1882 | |
| Production | 1,000 Bushels | 12,880 | 1982 | 242 | 1882 | |
| ***Oats*** | | | | | | |
| Acres Harvested | 1,000 Acres | 82 | 1910 | 8 | 1991, 94 | 1882 |
| Yield | Bushels | 77.0 | 1991 | 25.0 | 1882, 83 | |
| Production | 1,000 Bushels | 3,338 | 1914 | 550 | 1977 | |
| ***All Wheat*** | | | | | | |
| Acres Harvested | 1,000 Acres | 444 | 1953 | 65 | 1880, 81 | 1879 |
| Yield | Bushels | 51.1 | 1998 | 15.4 | 1919 | |
| Production | 1,000 Bushels | 9,750 | 1986 | 1,139 | 1882 | |
| ***Other Spring Wheat*** | | | | | | |
| Acres Harvested | 1,000 Acres | 160 | 1918 | 16 | 1972 | 1909 |
| Yield | Bushels | 65.0 | 1995 | 18.7 | 1919 | |
| Production | 1,000 Bushels | 4,000 | 1918 | 704 | 1972 | |
| ***Winter Wheat*** | | | | | | |
| Acres Harvested | 1,000 Acres | 342 | 1953 | 120 | 1909 | 1909 |
| Yield | Bushels | 50.0 | 1995, 98 | 12.7 | 1919 | |
| Production | 1,000 Bushels | 8,100 | 1986 | 1,862 | 1924 | |
| ***All Hay*** | | | | | | |
| Acres Harvested | 1,000 Acres | 715 | 1997 | 402 | 1909 | 1909 |
| Yield | Tons | 3.91 | 1998 | 1.51 | 1934 | |
| Production | 1,000 Tons | 2,778 | 1998 | 679 | 1934 | |
| ***Alfalfa Hay*** | | | | | | |
| Acres Harvested | 1,000 Acres | 562 | 1930 | 359 | 1934 | 1919 |
| Yield | Tons | 4.40 | 1993, 98 | 1.67 | 1934 | |
| Production | 1,000 Tons | 2,398 | 1998 | 600 | 1934 | |
| ***All Other Hay*** | | | | | | |
| Acres Harvested | 1,000 Acres | 180 | 1947 | 92 | 1934 | 1924 |
| Yield | Tons | 2.30 | 1998 | 0.86 | 1934 | |
| Production | 1,000 Tons | 380 | 1998 | 79 | 1934 | |
| ***Dry Edible Beans*** | | | | | | |
| Acres Harvested | 1,000 Acres | 20 | 1970 | 0.6 | 1996 | 1934 |
| Yield | Pounds | 1,600 | 1996 | 200 | 1956, 59, 62, 77 | 1954 |
| Production | 1,000 Cwt | 91 | 1947 | 2 | 1977 | 1934 |
| ***Fall Potatoes*** | | | | | | |
| Acres Harvested | 1,000 Acres | 19.6 | 1943 | 2.6 | 1998 | 1882 |
| Yield | Cwt | 290 | 1997 | 45 | 1886 | |
| Production | 1,000 Cwt | 2,153 | 1946 | 405 | 1886 | |
| ***Summer Storage Onions*** | | | | | | |
| Acres Harvested | Acres | 2,400 | 1944, 98 | 550 | 1954, 66 | 1939 |
| Yield | Cwt | 525 | 1992 | 200 | 1940 | |
| Production | 1,000 Cwt | 1,116 | 1997 | 150 | 1952 | |
| ***Apples*** | | | | | | |
| Utilized Production | Million Lbs | 63.0 | 1987 | 2.7 | 1889 | 1889 |
| ***Apricots*** | | | | | | |
| Utilized Production | Tons | 10,000 | 1957 | 0 | 1972, 95 | 1929 |
| ***Peaches (Freestone)*** | | | | | | |
| Utilized Production | Million Lbs | 44.2 | 1922 | 1.5 | 1972 | 1899 |
| ***Pears*** | | | | | | |
| Utilized Production | Tons | 8,750 | 1954 | 200 | 1972 | 1909 |
| ***Sweet Cherries*** | | | | | | |
| Utilized Production | Tons | 7,700 | 1968 | 0 | 1972 | 1938 |
| ***Tart Cherries*** | | | | | | |
| Utilized Production | Million Lbs | 30.0 | 1992 | 1.3 | 1972 | 1938 |

## Record Highs and Lows: Utah Livestock, Poultry, Honey, and Mink

| Item | Unit | Record High | | Record Low | | Year Record Started |
|---|---|---|---|---|---|---|
| | | Quantity | Year | Quantity | Year | |
| ***Cattle & Calves*** | | | | | | |
| Inventory Jan. 1 | Thou Hd | 950 | 1983 | 95 | 1867 | 1867 |
| Calf Crop | Thou Hd | 395 | 1996 | 129 | 1935 | 1920 |
| Beef Cows Jan. 1 1/ | Thou Hd | 374 | 1983 | 107 | 1939 | 1920 |
| Milk Cows Jan. 1 1/ | Thou Hd | 126 | 1945 | 14 | 1867 | 1867 |
| Milk Production | Mil Lbs | 1,547 | 1996 | 412 | 1924 | 1924 |
| Cattle on Feed Jan. 1 | Thou Hd | 81 | 1963, 66 | 33 | 1986 | 1959 |
| ***Hogs and Pigs*** | | | | | | |
| Inventory Dec. 1 2/ | Thou Hd | 380 | 1998 | 4 | 1867, 69 | 1867 |
| ***Sheep and Lambs*** | | | | | | |
| Stock Sheep Inventory Jan. 1 | Thou Hd | 2,935 | 1931 | 167 | 1867 | 1867 |
| Lamb Crop | Thou Hd | 1,736 | 1930 | 350 | 1998 | 1924 |
| Market Sheep & Lambs Inv Jan.1 | Thou Hd | 70 | 1995 | 35 | 1994 | 1994 |
| ***Chickens*** | | | | | | |
| Hens & Pullets of Laying Age Dec. 1 | Thou Hd | 2,750 | 1944 | 1,166 | 1965 | 1925 |
| Egg Production Total for Year | Mil Eggs | 513 | 1995 | 142 | 1924 | 1924 |
| ***Honey*** | | | | | | |
| Production | Thou Lbs | 4,368 | 1963 | 315 | 1997 | 1913 |
| ***Mink*** | | | | | | |
| Pelts Produced | Thou Pelts | 780 | 1989 | 283 | 1973 | 1969 |

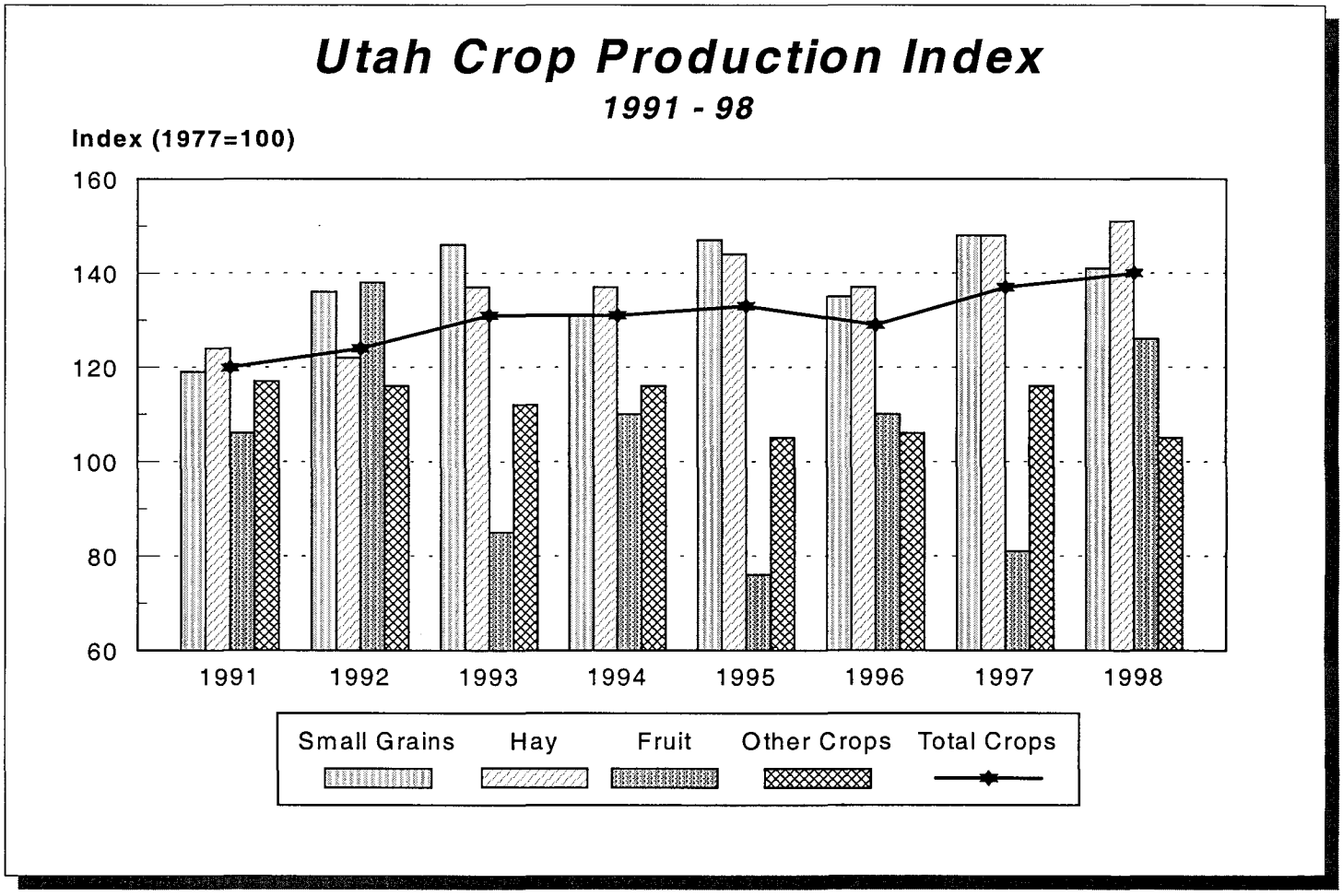
1/ Cows and heifers two years old and over prior to 1970, cows that have calved starting in 1970. 2/ January 1 estimates discontinued in 1969. December 1 estimates started 1969.



## Crop Production Index (1977=100): Crops, by Commodity Grouping, Utah, 1991-98

| Year | Small Grain | Hay | Fruit 1/ | Other Crops | Total Crops |
|---|---|---|---|---|---|
| | | | Percent | | |
| 1991 | 119 | 124 | 106 | 117 | 120 |
| 1992 | 136 | 122 | 138 | 116 | 124 |
| 1993 | 146 | 137 | 85 | 112 | 131 |
| 1994 | 131 | 137 | 110 | 116 | 131 |
| 1995 | 147 | 144 | 76 | 105 | 133 |
| 1996 | 135 | 137 | 110 | 106 | 129 |
| 1997 | 148 | 148 | 81 | 116 | 137 |
| 1998 | 141 | 151 | 126 | 105 | 140 |

1/ Fruit production index is derived from total production.



# Number of Farms

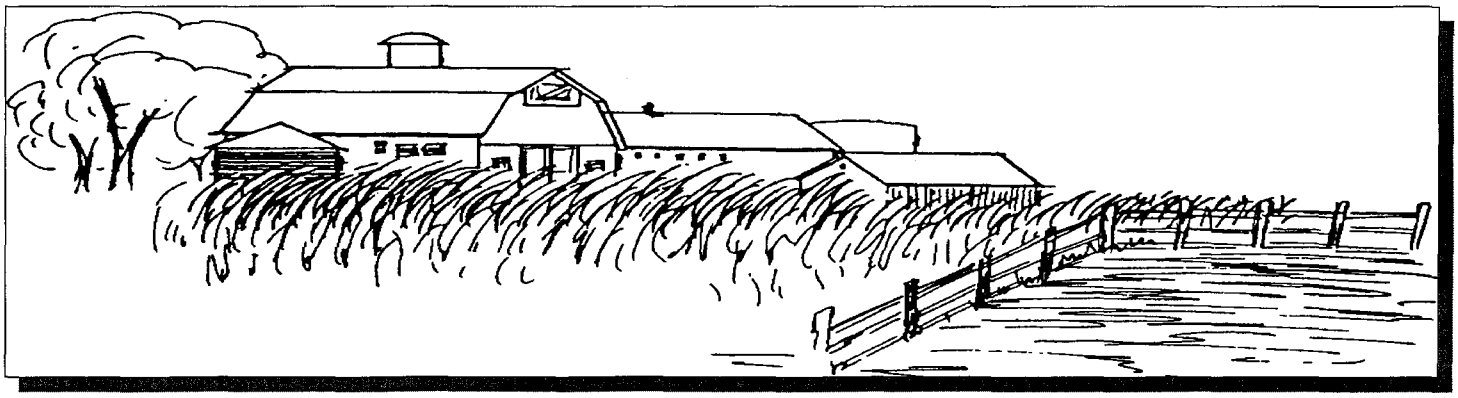
**UTAH**: The number of farms in Utah in 1998 was estimated at 15,000, the same level as 1997 and 1996. Total land in farms for 1998 was 11.6 million acres, the same as 1997. The average farm size, at 773 acres, remained the same as 1997.

**UNITED STATES**: The number of farms in 1998 was estimated at 2.19 million, up fractionally from 1997. Total land in farms was 953.8 million acres, down 2.2 million acres from 1997. The decline in farm numbers and land in farms continues to follow historical trends. The average farm size decreased 1 acre from 1997 to 435 acres.

**Farm Numbers and Acreage: Utah and United States, 1991-98** 1/

| Year | Utah | | | United States | | |
|---|---|---|---|---|---|---|
| | Farms 2/ | Land in Farms | | Farms 2/ | Land in Farms | |
| | | Average Size | Total | | Average Size | Total |
| | Number | Acres | 1,000 Acres | 1,000 Farms | Acres | 1,000 Acres |
| 1991 | 13,300 | 850 | 11,300 | 2,117 | 464 | 981,736 |
| 1992 | 13,200 | 856 | 11,300 | 2,108 | 464 | 978,503 |
| 1993 | 14,500 | 772 | 11,200 | 2,202 | 440 | 968,845 |
| 1994 | 14,500 | 772 | 11,200 | 2,198 | 440 | 965,935 |
| 1995 | 15,000 | 760 | 11,400 | 2,196 | 438 | 962,515 |
| 1996 | 15,000 | 760 | 11,400 | 2,191 | 438 | 958,675 |
| 1997 | 15,000 | 773 | 11,600 | 2,191 | 436 | 956,010 |
| 1998 | 15,000 | 773 | 11,600 | 2,192 | 435 | 953,765 |

1/ A farm is defined as a place with annual sales of agricultural products of $1,000 or more. 2/ Definition changed in 1995 to include operations with no sales but which have 5 or more horses not including operations that are either stables or racetracks only. All definition changes beginning in 1995 were carried back to 1993. Because of these changes a noticeable difference can be seen between 1992 and 1993.



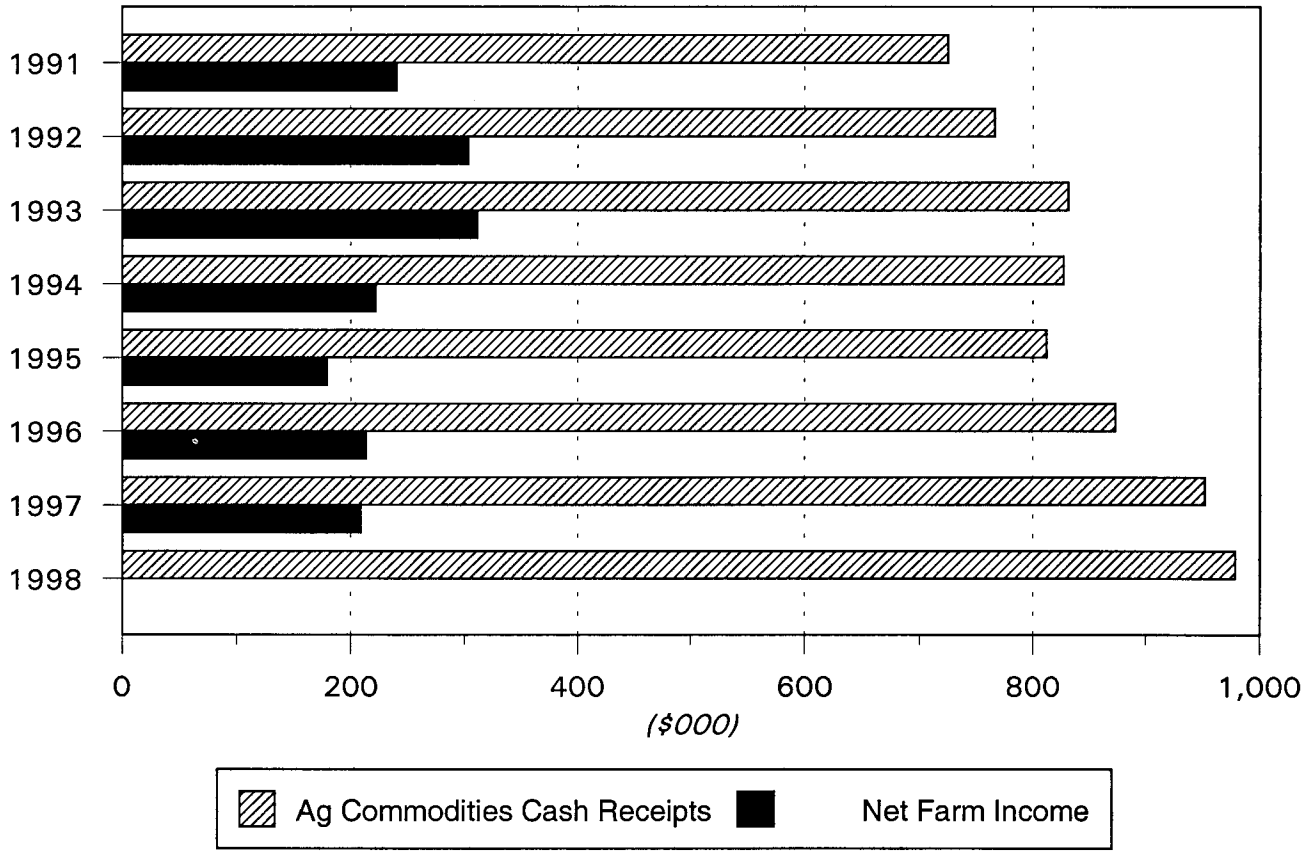
# Farm Income

Marketing of Utah crops and livestock in 1998 produced cash receipts totaling $978.8 million according to preliminary data by USDA'S Economic Research Service. This was 2.7 percent above 1997. The 1998 cash receipts from livestock, of $734.4 million, were 2.7 percent above 1997. Cash receipts from crops, at $244.5 million, were up 2.7 percent from 1997.

Utah's net farm income for 1997 was $208.8 million compared with $203.9 million in 1996 and $182.8 million in 1995.

## Ag Commodities Cash Receipts and Net Farm Income

### Utah, 1991-98



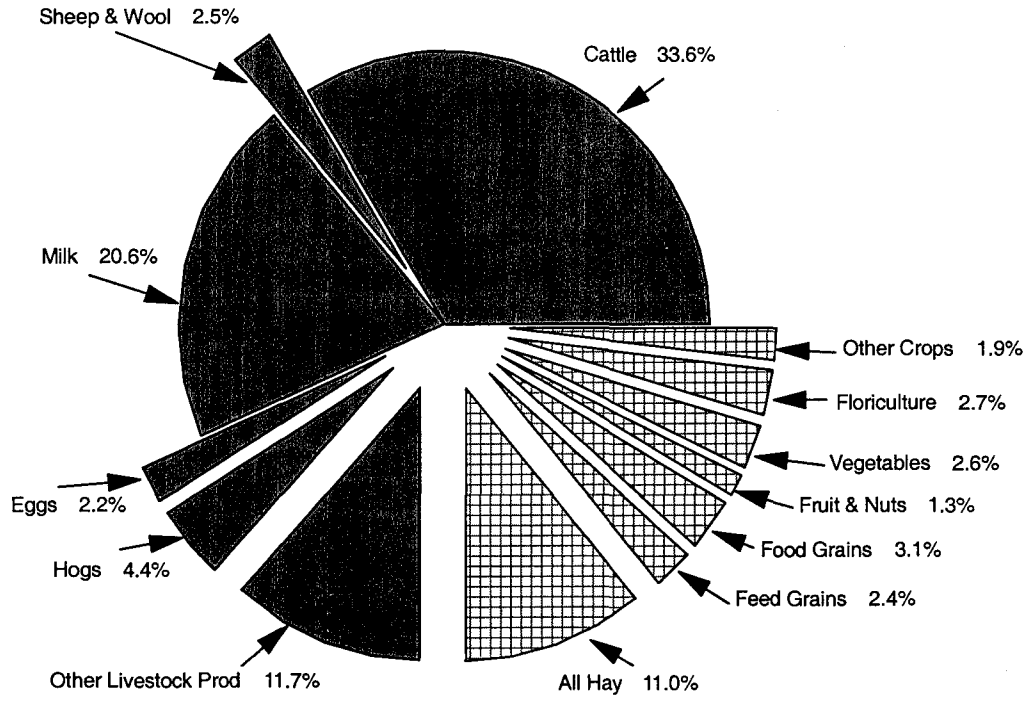
## Cash Receipts: by Commodity, Utah, 1994-97 1/ 2/

| Commodity | 1994 | | 1995 | | 1996 | | 1997 | |
|---|---|---|---|---|---|---|---|---|
| | Dollars | % of Total | Dollars | % of Total | Dollars | % of Total | Dollars | % of Total |
| | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent |
| ***All Commodities*** | | | | | | | | |
| All Commodities | 826,950 | 100.0 | 812,026 | 100.0 | 871,817 | 100.0 | 952,959 | 100.0 |
| ***Livestock & Products*** | | | | | | | | |
| Livestock & products | 597,101 | 72.2 | 591,331 | 72.8 | 644,066 | 73.9 | 714,890 | 75.0 |
| Meat Animals | 301,793 | 36.5 | 289,677 | 35.7 | 281,751 | 32.3 | 384,181 | 40.3 |
| Cattle & Calves | 280,846 | 34.0 | 261,437 | 32.2 | 244,193 | 28.0 | 319,899 | 33.6 |
| Hogs | 4,752 | 0.6 | 5,629 | 0.7 | 15,941 | 1.8 | 42,336 | 4.4 |
| Sheep & Lambs | 16,195 | 2.0 | 22,611 | 2.8 | 21,617 | 2.5 | 21,946 | 2.3 |
| Dairy Products | 181,930 | 22.0 | 181,837 | 22.4 | 219,475 | 25.2 | 196,263 | 20.6 |
| Milk, Retail | 13,786 | 1.7 | 12,074 | 1.5 | 13,395 | 1.5 | 15,084 | 1.6 |
| Milk, Wholesale | 168,144 | 20.3 | 169,763 | 20.9 | 206,080 | 23.6 | 181,179 | 19.0 |
| Poultry/Eggs | 59,531 | 7.2 | 69,268 | 8.5 | 73,536 | 8.4 | 72,588 | 7.6 |
| Chicken Eggs | 18,453 | 2.2 | 20,135 | 2.5 | 21,885 | 2.5 | 20,928 | 2.2 |
| Other Poultry | 834 | * | 7,867 | 1.0 | 10,570 | 1.2 | 10,807 | 1.1 |
| Miscellaneous Livestock | 53,847 | 6.5 | 50,549 | 6.2 | 69,304 | 7.9 | 61,858 | 6.5 |
| Honey | 1,345 | * | 686 | * | 1,329 | * | 1,248 | * |
| Wool | 2,690 | * | 3,535 | * | 2,009 | * | 2,179 | * |
| Aquaculture | 2,348 | * | 3,596 | * | 2,489 | * | 2,326 | * |
| Other Livestock | 47,464 | 5.7 | 42,732 | 5.3 | 63,477 | 7.3 | 56,105 | 5.9 |
| Mink pelts | 20,460 | 2.5 | 17,490 | 2.2 | 30,267 | 3.5 | 20,651 | 2.2 |
| All other livestock | 27,004 | 3.3 | 25,242 | 3.1 | 33,210 | 3.8 | 35,454 | 3.7 |
| ***Crops*** | | | | | | | | |
| Crops | 229,849 | 27.8 | 220,695 | 27.2 | 227,751 | 26.1 | 238,069 | 25.0 |
| Food Grains | 25,249 | 3.1 | 32,475 | 4.0 | 38,022 | 4.4 | 29,850 | 3.1 |
| Wheat | 25,249 | 3.1 | 32,475 | 4.0 | 38,022 | 4.4 | 29,850 | 3.1 |
| Feed Crops | 112,813 | 13.6 | 110,670 | 13.6 | 109,237 | 12.5 | 127,964 | 13.4 |
| Barley | 14,364 | 1.7 | 19,366 | 2.4 | 23,924 | 2.7 | 16,193 | 1.7 |
| Corn | 5,796 | 0.7 | 5,703 | 0.7 | 6,703 | 0.8 | 6,797 | 0.7 |
| Hay | 91,870 | 11.1 | 85,008 | 10.5 | 77,962 | 8.9 | 104,370 | 11.0 |
| Oil Crops | 1,421 | * | 1,581 | * | 1,224 | * | 1,725 | * |
| Vegetables | 31,913 | 3.9 | 23,089 | 2.8 | 22,266 | 2.6 | 24,589 | 2.6 |
| Potatoes | 8,203 | 1.0 | 6,933 | 0.9 | 5,423 | 0.6 | 4,642 | 0.5 |
| Onions | 6,714 | 0.8 | 5,634 | 0.7 | 6,150 | 0.7 | 9,370 | 1.0 |
| Miscellaneous Vegetables | 14,447 | 1.7 | 10,036 | 1.2 | 10,200 | 1.2 | 10,200 | 1.1 |
| Fruits/Nuts | 12,275 | 1.5 | 8,975 | 1.1 | 14,836 | 1.7 | 12,452 | 1.3 |
| Apples | 5,268 | 0.6 | 3,726 | 0.5 | 5,766 | 0.7 | 6,406 | 0.7 |
| Fresh | 4,655 | 0.6 | 3,016 | * | 5,212 | 0.6 | 5,985 | 0.6 |
| Cherries | 4,296 | 0.5 | 2,270 | * | 5,094 | 0.6 | 2,752 | * |
| Sweet | 2,030 | * | 1,646 | * | 2,490 | * | 512 | * |
| Tart | 2,266 | * | 624 | * | 2,604 | * | 2,240 | * |
| Peaches | 1,518 | * | 1,550 | * | 2,112 | * | 1,755 | * |
| Other Berries | 343 | * | 675 | * | 743 | * | 743 | * |
| Miscellaneous Fruits/Nuts | 296 | * | 294 | * | 292 | * | 292 | * |
| All Other Crops | 46,178 | 5.6 | 43,905 | 5.4 | 42,166 | 4.8 | 41,489 | 4.4 |
| Other Seeds | 1,252 | * | 1,277 | * | 1,675 | * | 1,775 | * |
| Other Field Crops | 387 | * | 490 | * | 481 | * | 435 | * |
| Christmas trees | 140 | * | 143 | * | 146 | * | 146 | * |
| Greenhouse/Nursery | 36,842 | 4.5 | 34,983 | 4.3 | 33,531 | 3.8 | 32,800 | 3.4 |
| Floriculture | 24,795 | 3.0 | 28,305 | 3.5 | 26,486 | 3.0 | 25,755 | 2.7 |
| Other Greenhouses | 12,047 | 1.5 | 6,678 | 0.8 | 7,045 | 0.8 | 7,045 | 0.7 |

1/ Source: "Economic Indicators of the Farm Sector: State Financial Summary." Economic Research Service, USDA 2/ Individual dollar values and percents may not add to commodity grouping totals because some individual commodities with less than $1,000,000 are not published separately, or included in "other" or "miscellaneous". Percents may not add to totals due to rounding. * Less than 0.5 percent.

The graph below shows the predominance of livestock in Utah's agricultural economy. Livestock and livestock products accounted for 75.0 percent of farm cash receipts in 1997, up from 74.0 percent in 1996. In 1997, cattle remained the single largest contributing commodity producing 33.6 percent of the total cash receipts. Milk cash receipts decreased from 25.2 percent in 1996 to 20.6 percent in 1997. Hay, which continues to be the largest cash producing crop in Utah, increased from 8.9 percent in 1996 to 11.0 percent in 1997.

# *Utah Cash Receipts By Commodities 1997*




Livestock & Livestock Products = 75.0%
Crops = 25.0%

## Net Farm Income: Value added to the U.S. economy by the agricultural sector via the production of goods and services, Utah, 1991-97 1/ 2/

| Item | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|
| | Thousand Dollars | | | | | | |
| **Final Agricultural Sector Output** | 823,426 | 899,524 | 951,249 | 970,990 | 967,877 | 1,045,029 | 1,091,289 |
| Final crop output | 184,248 | 193,058 | 221,941 | 230,114 | 229,527 | 226,639 | 245,795 |
| Food Grains | 17,253 | 20,596 | 21,585 | 25,249 | 32,475 | 38,022 | 29,850 |
| Feed Crops | 69,362 | 80,691 | 104,543 | 112,813 | 110,670 | 109,237 | 127,964 |
| Oil crops | 702 | 714 | 1,108 | 1,421 | 1,581 | 1,224 | 1,725 |
| Fruits and tree nuts | 24,053 | 15,854 | 11,085 | 12,275 | 8,975 | 14,836 | 12,452 |
| Vegetables | 30,330 | 35,263 | 35,338 | 31,913 | 23,089 | 22,266 | 24,589 |
| All other crops | 33,487 | 40,415 | 44,030 | 46,178 | 43,905 | 42,166 | 41,489 |
| Home consumption | 771 | 723 | 428 | 452 | 675 | 592 | 508 |
| Value of inventory adjustment 3/ | 8,290 | (1,198) | 3,824 | (187) | 8,158 | (1,704) | 7,218 |
| Final animal output | 551,225 | 613,208 | 622,695 | 625,105 | 605,837 | 667,790 | 697,081 |
| Meat animals | 301,682 | 288,294 | 324,755 | 301,793 | 289,677 | 281,751 | 384,181 |
| Dairy products | 148,580 | 169,532 | 165,065 | 181,930 | 181,837 | 219,475 | 196,263 |
| Poultry and eggs | 69,544 | 63,824 | 70,566 | 59,531 | 69,268 | 73,536 | 72,588 |
| Miscellaneous livestock | 29,800 | 50,954 | 53,322 | 53,847 | 50,549 | 69,304 | 61,858 |
| Home consumption | 8,008 | 7,607 | 6,194 | 7,260 | 6,686 | 6,054 | 7,033 |
| Value of inventory adjustment 3/ | (6,389) | 32,997 | 2,793 | 20,744 | 7,820 | 17,670 | (24,842) |
| Services and forestry | 87,953 | 93,258 | 106,613 | 115,771 | 132,513 | 150,600 | 148,413 |
| Machine hire and custom work | 13,320 | 15,254 | 15,892 | 17,016 | 16,553 | 16,051 | 18,637 |
| Forest products sold | 200 | 290 | 283 | 94 | 95 | 97 | 97 |
| Other farm income | 18,671 | 20,568 | 24,889 | 21,049 | 26,483 | 37,883 | 27,168 |
| Gross imputed rental value of farm dwelling | 55,762 | 57,146 | 65,549 | 77,612 | 89,382 | 96,569 | 102,511 |
| **Intermediate Consumption Outlays** | 365,453 | 384,703 | 418,945 | 488,472 | 497,990 | 546,937 | 568,082 |
| Farm origin | 149,697 | 154,105 | 168,483 | 180,921 | 190,125 | 210,451 | 226,408 |
| Feed purchased | 83,772 | 87,174 | 87,145 | 107,228 | 122,067 | 138,379 | 156,938 |
| Livestock and poultry purchased | 53,994 | 56,044 | 69,709 | 60,052 | 55,014 | 57,706 | 53,698 |
| Seed purchased | 11,931 | 10,887 | 11,629 | 13,641 | 13,044 | 14,366 | 15,772 |
| Manufactured inputs | 68,594 | 66,002 | 67,142 | 80,338 | 83,883 | 95,476 | 91,406 |
| Fertilizers and lime | 14,219 | 14,038 | 16,021 | 20,774 | 22,065 | 24,319 | 25,656 |
| Pesticides | 7,317 | 7,123 | 7,845 | 9,172 | 9,646 | 10,527 | 11,430 |
| Petroleum fuel and oils | 31,592 | 28,473 | 27,801 | 30,871 | 30,906 | 35,938 | 37,500 |
| Electricity | 15,466 | 16,368 | 15,475 | 19,521 | 21,266 | 24,692 | 16,820 |
| Other intermediate expenses | 147,162 | 164,596 | 183,320 | 227,213 | 223,982 | 241,010 | 250,268 |
| Repair and maintenance of capital items | 46,878 | 56,220 | 55,759 | 66,513 | 68,474 | 75,845 | 71,783 |
| Machine hire and custom work | 11,491 | 12,114 | 12,981 | 13,378 | 16,580 | 11,566 | 12,741 |
| Marketing, storage, and transportation | 14,190 | 12,776 | 22,552 | 25,058 | 24,399 | 23,650 | 34,264 |
| Contract labor | 3,358 | 3,383 | 3,460 | 3,167 | 4,719 | 5,701 | 6,245 |
| Miscellaneous expenses | 71,245 | 80,103 | 88,568 | 119,097 | 109,810 | 124,248 | 125,235 |
| **Net Government Transactions** | 9,197 | 11,552 | 10,111 | 1,181 | (7,267) | (12,010) | (14,147) |
| +Direct Government payments | 33,197 | 35,972 | 36,614 | 32,055 | 25,045 | 21,478 | 20,095 |
| - Motor vehicle registration and licensing fee | 3,345 | 3,244 | 3,829 | 5,016 | 4,258 | 4,648 | 4,759 |
| - Property taxes | 20,655 | 21,176 | 22,674 | 25,858 | 28,054 | 28,840 | 29,483 |
| **Gross Value Added** | 467,170 | 526,373 | 542,415 | 483,699 | 462,621 | 486,082 | 509,060 |
| Capital consumption | 101,519 | 104,236 | 106,214 | 110,704 | 118,532 | 123,699 | 125,289 |
| **Net Value Added** | 365,651 | 422,137 | 436,201 | 372,995 | 344,089 | 362,383 | 383,771 |
| Factor payments | 122,950 | 115,357 | 119,405 | 148,027 | 161,278 | 158,506 | 174,944 |
| Employee compensation (total hired labor) | 56,874 | 54,572 | 67,250 | 87,998 | 92,120 | 92,055 | 100,879 |
| Net rent received by non operator landlord | 5,596 | 7,052 | 3,922 | 7,236 | 12,400 | 12,491 | 17,341 |
| Real estate and non real estate interest | 60,480 | 53,733 | 48,233 | 52,793 | 56,758 | 53,960 | 56,724 |
| **Net Farm Income** 4/ | 242,701 | 306,780 | 316,796 | 224,968 | 182,811 | 203,877 | 208,827 |

1/ Source: Economic Research Service, USDA. 2/ Final sector output is the gross value of the commodities and services produced within a year. Net value-added is the sector's contribution to the National economy and is the sum of the income from production earned by all factors-of-production. Net farm income is the farm operator's share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development. 3/ A positive value of inventory change represents current-year production not sold by December 1. A negative value is an offset to production from prior years included in current-year sales. 4/ Net Farm income = final agricultural sector output minus intermediate consumption outlays plus net government transactions minus capital consumption minus factor payments.

## Farm Balance Sheet: (Excluding Operator Households), Utah, December 31, 1993-97 1/ 2/

| Item | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|
| | | | Thousand Dollars | | |
| ***Assets*** | | | | | |
| Total Farm Assets | 6,378,725 | 6,959,603 | 7,941,613 | 8,488,361 | 8,836,735 |
| Real Estate | 5,172,795 | 5,781,076 | 6,589,289 | 7,090,339 | 7,373,953 |
| Livestock & Poultry 3/ | 626,929 | 626,445 | 510,964 | 553,353 | 592,947 |
| Machinery & Motor Vehicles 4/ | 436,081 | 445,723 | 462,921 | 467,407 | 464,144 |
| Crops 5/ | 117,657 | 114,672 | 101,191 | 120,993 | 148,257 |
| Purchased Inputs | 29,321 | 36,362 | 22,694 | 24,478 | 28,690 |
| Financial | (4,058) | (44,675) | 254,554 | 231,791 | 228,744 |
| ***Claims*** | | | | | |
| Farm Debt 6/ | 650,400 | 668,573 | 688,266 | 709,522 | 766,897 |
| By Purpose: | | | | | |
| Real Estate Debt | 340,390 | 339,394 | 348,133 | 350,892 | 372,674 |
| Non-Real Estate Debt | 310,010 | 329,179 | 340,133 | 358,630 | 394,223 |
| By Lender: | | | | | |
| Farm Credit System | 161,240 | 148,480 | 154,639 | 168,089 | 189,799 |
| Farm Service Agency 7/ | 83,458 | 82,233 | 77,608 | 76,243 | 76,577 |
| Commercial banks | 192,554 | 210,759 | 220,603 | 221,039 | 240,290 |
| Life insurance companies | 8,431 | 11,041 | 10,948 | 9,928 | 15,802 |
| Individuals and others | 204,716 | 216,060 | 224,467 | 234,223 | 244,428 |
| ***Equity*** | | | | | |
| Equity | 5,728,325 | 6,291,030 | 7,253,347 | 7,778,839 | 8,069,838 |
| ***Rations*** | | | | | |
| | | | Percent | | |
| Debt/Equity | 11.4 | 10.6 | 9.5 | 9.1 | 9.5 |
| Debt/Assets | 10.2 | 9.6 | 8.7 | 8.4 | 8.7 |

1/ Source: Economic Research Service/USDA.
2/ Data are for farms with sales of $1,000 or more annually.
3/ Excludes horses, mules, and broilers.
4/ Includes only farm share value for trucks and autos.
5/ All non-CCC crops held on farms plus the value above loan rate for crops held under CCC.
6/ Excludes debt for non-farm purposes.
7/ Farmers Home Administration prior to 1994.

# Field Crops

Precipitation during the October 1, 1997 through September 30, 1998 water year was 119 percent of normal for the state. Divisions ranged from 102 to 144 percent of normal.

### *PRINCIPAL CROPS*

Utah farmers planted 1.11 million acres to principal crops in 1998, down 2 percent from 1997. Harvested acres were 1.05 million acres, 3 percent less than 1997. Preliminary total value of principal crops was $290.2 million compared with $314.4 million in 1997.

### *HAY*

**Alfalfa hay** harvested, at 545,000 acres, was unchanged from 1997. Yield averaged a record high 4.40 tons per acre, up 0.1 ton from 1997. Total production of 2.4 million tons was a record high and was up 2 percent from 1997.

**All other hay** harvested, at 165,000 acres, compared with 170,000 acres harvested in 1997. The average yield of 2.30 tons per acre produced 380,000 tons, up 2 percent from 1997. Both 1998 yield and production were record highs.

The 1997 **all hay** crop was valued at $210.3 million which was down 6 percent from 1997. The price per ton, at $78.00, was down $6.00 from the previous year.

### *SMALL GRAINS*

Planted acreage for all wheat was 179,000 acres, down 8 percent from 1997; barley planted, at 95,000 acres, was down 5,000 acres; while oats, at 50,000 acres, remained the same as 1997.

**Winter wheat** harvested acreage, at 150,000 acres, was 9 percent less than 1997, and the yield, at a record high 50 bushels per acre, was up from the 46 bushels per acre in 1997. Total production, at 7.5 million bushels, was down 90,000 bushels from 1997. Value of production decreased 17 percent to $20.6 million.

**Other spring wheat** harvested acreage, at 23,000 acres, was down 4 percent from 1997. The average yield, at 58 bushels per acre, was 10 bushels above the previous year, and production, at 1.3 million bushels, was up 16 percent from the previous year. Value of production, at $3.3 million, was down 19 percent from 1997.

**Barley** acreage harvested, at 85,000 acres, was 11 percent below 1997. Production, at 7.1 million bushels, was 925,000 bushels less than 1997. The average yield of 83.0 bushels per acre was one bushel below the previous year. The 1998 barley crop was valued at $12.0 million, down 34 percent from 1997.

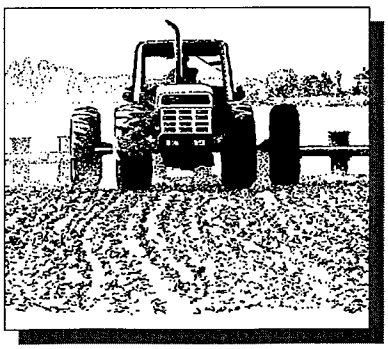
**Oat** production, at 630,000 bushels, was 12 percent below the previous year. Growers harvested 9,000 acres for grain, 1,000 acres less than the previous year. The value of production, at $851,000, was down 40 percent from the previous year.

### *CORN*

**Corn** acreage planted **for all purposes**, at 62,000 acres, was the same as 1997.

**Corn** acreage harvested **for grain**, at a record high 24,000 acres, was up 20 percent from 1997. The average yield for grain, at 141 bushels per acre, was down 6 bushels from the 1997 level. Grain production totaled a record high 3.4 million bushels, up 15 percent from 1997. The crop was valued at $8.1 million, down 9 percent from the previous year.

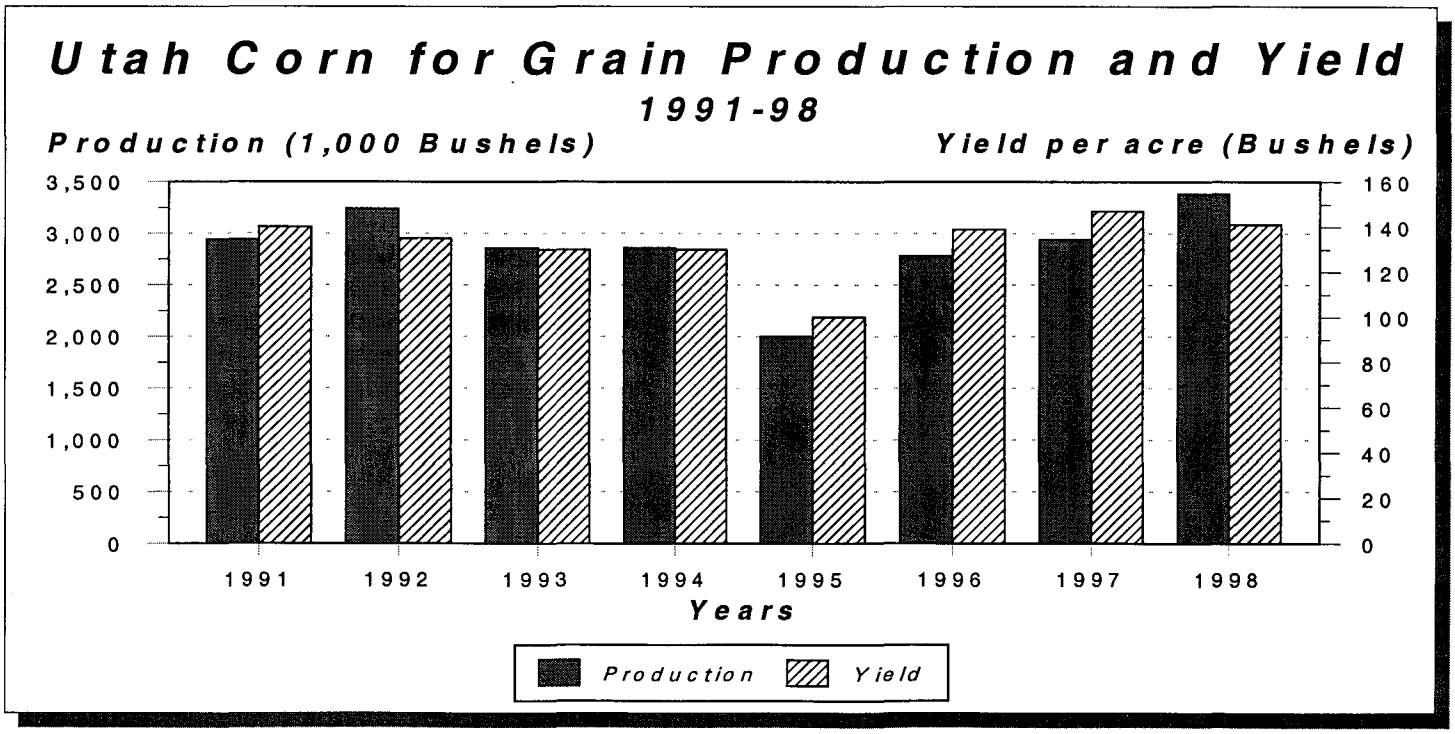
**Corn for silage** production totaled 777,000 tons compared with 943,000 tons in 1997. A total of 37,000 acres was harvested. The value of the crop was $20.2 million compared with $26.4 million in 1997.



## Corn Planted and Harvested for Silage and Grain: Acreage, Yield, Production, and Value, Utah, 1991-98

| Year | Planted for All Purposes | Acres Harvested | Yield Per Acre | Production | Marketing Year Average Price | Value of Production |
|---|---|---|---|---|---|---|
| ***Silage*** | | | | | | |
| | ..... 1,000 Acres ..... | | Tons | 1,000 Tons | Dollars per Ton 1/ | 1,000 Dollars |
| 1991 | 68 | 44 | 21.0 | 924 | 22.00 | 20,328 |
| 1992 | 68 | 42 | 19.0 | 798 | 24.00 | 19,152 |
| 1993 | 68 | 44 | 20.0 | 880 | 24.00 | 21,120 |
| 1994 | 67 | 43 | 22.0 | 946 | 26.00 | 24,596 |
| 1995 | 66 | 45 | 20.0 | 900 | 25.00 | 23,500 |
| 1996 | 62 | 40 | 21.0 | 840 | 28.00 | 24,696 |
| 1997 | 62 | 41 | 23.0 | 943 | 28.00 | 28,896 |
| 1998 | 62 | 37 | 21.0 | 777 | 26.00 | 20,202 |
| ***Grain*** | | | | | | |
| | ..... 1,000 Acres ..... | | Bushels | 1,000 Bushels | Dollars per Bushel | 1,000 Dollars |
| 1991 | 68 | 21 | 140.0 | 2,940 | 2.92 | 8,585 |
| 1992 | 68 | 24 | 135.0 | 3,240 | 2.74 | 8,878 |
| 1993 | 68 | 22 | 130.0 | 2,860 | 3.12 | 8,923 |
| 1994 | 67 | 22 | 130.0 | 2,860 | 2.92 | 8,351 |
| 1995 | 66 | 20 | 100.0 | 2,000 | 3.88 | 7,760 |
| 1996 | 62 | 20 | 139.0 | 2,780 | 3.80 | 10,564 |
| 1997 | 62 | 20 | 147.0 | 2,940 | 3.05 | 8,967 |
| 1998 | 62 | 24 | 141.0 | 3,384 | 2.40 | 8,122 |

1/ Price or value per ton in silo or pit.



## Small Grains: Acreage, Yield, Production, and Value, Utah, 1991-98

| Year | Acres | | Yield per Acre | Production | Marketing Year Average Price | Value of Production |
|---|---|---|---|---|---|---|
| | Planted 1/ | Harvested | | | | |
| | 1,000 Acres | | Bushels | 1,000 Bushels | Dollars per Bushel | 1,000 Dollars |
| ***Winter Wheat 1/*** | | | | | | |
| 1991 | 140 | 130 | 36.0 | 4,680 | 3.45 | 16,146 |
| 1992 | 145 | 135 | 40.0 | 5,400 | 3.27 | 17,658 |
| 1993 | 160 | 155 | 39.0 | 6,045 | 3.40 | 20,553 |
| 1994 | 170 | 150 | 40.0 | 6,000 | 3.66 | 21,960 |
| 1995 | 150 | 145 | 48.0 | 6,960 | 4.75 | 33,250 |
| 1996 | 175 | 160 | 38.0 | 6,080 | 4.45 | 27,056 |
| 1997 | 170 | 165 | 46.0 | 7,590 | 3.29 | 24,971 |
| 1998 | 155 | 150 | 50.0 | 7,500 | 2.75 | 20,625 |
| ***Other Spring Wheat*** | | | | | | |
| 1991 | 25 | 23 | 49.0 | 1,127 | 3.20 | 3,606 |
| 1992 | 25 | 22 | 48.0 | 1,056 | 3.30 | 3,485 |
| 1993 | 27 | 25 | 49.0 | 1,225 | 3.30 | 4,043 |
| 1994 | 24 | 22 | 46.0 | 1,012 | 3.60 | 3,643 |
| 1995 | 27 | 25 | 65.0 | 1,625 | 4.70 | 9,165 |
| 1996 | 27 | 25 | 55.0 | 1,375 | 4.40 | 6,050 |
| 1997 | 25 | 24 | 48.0 | 1,152 | 3.51 | 4,044 |
| 1998 | 24 | 23 | 58.0 | 1,334 | 2.45 | 3,268 |
| ***All Wheat*** | | | | | | |
| 1991 | 165 | 153 | 38.0 | 5,807 | 3.40 | 19,752 |
| 1992 | 170 | 157 | 41.1 | 6,456 | 3.28 | 21,143 |
| 1993 | 187 | 180 | 40.4 | 7,270 | 3.40 | 24,596 |
| 1994 | 194 | 172 | 40.8 | 7,012 | 3.65 | 25,603 |
| 1995 | 177 | 170 | 50.5 | 8,585 | 4.74 | 42,415 |
| 1996 | 202 | 185 | 40.3 | 7,455 | 4.40 | 33,106 |
| 1997 | 195 | 189 | 46.3 | 8,742 | 3.32 | 29,015 |
| 1998 | 179 | 173 | 51.1 | 8,834 | 2.70 | 23,893 |
| ***Barley*** | | | | | | |
| 1991 | 105 | 95 | 83.0 | 7,885 | 2.25 | 17,741 |
| 1992 | 125 | 115 | 78.0 | 8,970 | 2.23 | 20,003 |
| 1993 | 115 | 110 | 85.0 | 9,350 | 2.22 | 20,757 |
| 1994 | 115 | 107 | 75.0 | 8,025 | 2.32 | 18,618 |
| 1995 | 100 | 93 | 88.0 | 8,184 | 3.08 | 25,780 |
| 1996 | 110 | 100 | 80.0 | 8,000 | 2.93 | 23,440 |
| 1997 | 100 | 95 | 84.0 | 7,980 | 2.29 | 18,274 |
| 1998 | 95 | 85 | 83.0 | 7,055 | 1.70 | 11,994 |
| ***Oats*** | | | | | | |
| 1991 | 50 | 8 | 77.0 | 616 | 1.60 | 986 |
| 1992 | 45 | 15 | 70.0 | 1,050 | 1.63 | 1,712 |
| 1993 | 50 | 13 | 75.0 | 975 | 1.69 | 1,714 |
| 1994 | 40 | 8 | 72.0 | 576 | 1.65 | 990 |
| 1995 | 50 | 9 | 68.0 | 612 | 2.05 | 1,292 |
| 1996 | 45 | 9 | 70.0 | 630 | 2.10 | 1,323 |
| 1997 | 50 | 10 | 72.0 | 720 | 1.97 | 1,418 |
| 1998 | 50 | 9 | 70.0 | 630 | 1.35 | 851 |

1/ Planted in preceeding fall.

## Field Crops: Acreage, Yield, Production, and Value, Utah, 1991-98

| Year | Acres | | Yield per Acre | Production | Marketing Year Average Price | Value of Production |
|---|---|---|---|---|---|---|
| | Planted | Harvested | | | | |
| **Dry Beans** 1/ | | | | | | |
| | 1,000 Acres | | Pounds | 1,000 Cwt | Dollars per Cwt | 1,000 Dollars |
| 1991 | 6.0 | 5.5 | 480 | 26 | 14.00 | 364 |
| 1992 | 6.0 | 5.7 | 700 | 40 | 19.90 | 796 |
| 1993 | 6.4 | 6.1 | 390 | 24 | 28.00 | 672 |
| 1994 | 6.5 | 6.3 | 380 | 24 | 18.00 | 432 |
| 1995 | 7.3 | 7.0 | 460 | 32 | 19.00 | 608 |
| 1996 | 5.0 | 0.6 | 1,600 | 10 | 24.00 | 240 |
| 1997 | 5.8 | 5.2 | 800 | 42 | 20.00 | 840 |
| 1998 | 6.0 | 5.9 | 510 | 30 | 18.00 | 540 |
| **Potatoes** | | | | | | |
| | 1,000 Acres | | Cwt | 1,000 Cwt | Dollars per Cwt | 1,000 Dollars |
| 1991 | 6.1 | 6.0 | 270 | 1,620 | 5.25 | 8,505 |
| 1992 | 6.1 | 6.0 | 275 | 1,650 | 5.40 | 8,910 |
| 1993 | 6.3 | 6.2 | 265 | 1,643 | 5.70 | 9,365 |
| 1994 | 6.1 | 6.0 | 265 | 1,590 | 5.80 | 9,222 |
| 1995 | 5.2 | 5.1 | 240 | 1,224 | 5.10 | 6,242 |
| 1996 | 4.3 | 4.2 | 280 | 1,176 | 4.90 | 5,762 |
| 1997 | 3.3 | 3.3 | 290 | 957 | 4.35 | 4,163 |
| 1998 | 2.7 | 2.6 | 280 | 728 | 4.75 | 3,458 |

1/ Excludes beans grown for garden seed.

## Potatoes: Production, Farm Use, Sales, and Value, Utah, 1991-98

| Year | Production | Total Used for Seed 1/ | Farm Disposition | | | Price per Cwt | Value of Sales |
|---|---|---|---|---|---|---|---|
| | | | Used on Farms Where Grown | | Sold | | |
| | | | For Seed, Feed, & Household Use | Shrinkage, & Loss | | | |
| | 1,000 Cwt | | | | | Dollars | 1,000 Dollars |
| 1991 | 1,620 | 146 | 18 | 200 | 1,402 | 5.25 | 7,361 |
| 1992 | 1,650 | 153 | 20 | 105 | 1,525 | 5.40 | 8,235 |
| 1993 | 1,643 | 165 | 23 | 168 | 1,452 | 5.70 | 8,276 |
| 1994 | 1,590 | 130 | 5 | 185 | 1,400 | 5.80 | 8,120 |
| 1995 | 1,224 | 103 | 2 | 125 | 1,097 | 5.10 | 5,595 |
| 1996 | 1,176 | 78 | 1 | 108 | 1,067 | 4.90 | 5,228 |
| 1997 | 957 | 68 | 1 | 65 | 849 | 4.35 | 3,693 |
| 1998 2/ | 728 | 3/ | 3/ | 3/ | 3/ | 4.75 | 3/ |

1/ Includes seed purchased and seed used on farms where grown. 2/ Preliminary. 3/ Available September 22, 1999.

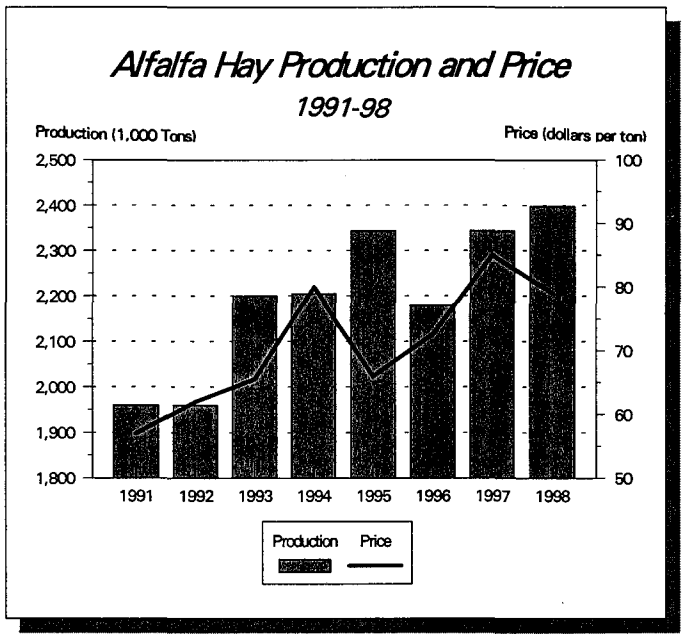
## Hay: Acreage, Yield, Production, and Value, Utah, 1991-98

| Year | Acres Harvested | Yield per Acre | Production | Marketing Year Average Price | Value of Production |
|---|---|---|---|---|---|
| | 1,000 Acres | Tons | 1,000 Tons | Dollars per Ton | 1,000 Dollars |
| ***Alfalfa & Alfalfa Mixtures*** | | | | | |
| 1991 | 490 | 4.00 | 1,960 | 57.00 | 111,720 |
| 1992 | 490 | 4.00 | 1,960 | 62.00 | 121,520 |
| 1993 | 500 | 4.40 | 2,200 | 65.50 | 144,100 |
| 1994 | 525 | 4.20 | 2,205 | 80.00 | 176,400 |
| 1995 | 545 | 4.30 | 2,344 | 66.00 | 154,704 |
| 1996 | 545 | 4.00 | 2,180 | 72.50 | 158,050 |
| 1997 | 545 | 4.30 | 2,344 | 85.00 | 199,240 |
| 1998 | 545 | 4.40 | 2,398 | 79.00 | 189,442 |
| ***All Other Hay*** 1/ | | | | | |
| 1991 | 150 | 2.10 | 315 | 47.00 | 14,805 |
| 1992 | 140 | 2.00 | 280 | 43.00 | 12,040 |
| 1993 | 150 | 2.20 | 330 | 50.50 | 16,665 |
| 1994 | 160 | 2.00 | 320 | 64.00 | 20,480 |
| 1995 | 150 | 2.00 | 300 | 49.50 | 14,850 |
| 1996 | 160 | 2.10 | 336 | 46.50 | 15,624 |
| 1997 | 170 | 2.20 | 374 | 64.00 | 23,936 |
| 1998 | 165 | 2.30 | 380 | 55.00 | 20,900 |
| ***All Hay*** | | | | | |
| 1991 | 640 | 3.55 | 2,275 | 56.00 | 126,525 |
| 1992 | 630 | 3.56 | 2,240 | 61.00 | 133,560 |
| 1993 | 650 | 3.89 | 2,530 | 65.00 | 160,765 |
| 1994 | 685 | 3.69 | 2,525 | 79.50 | 196,880 |
| 1995 | 695 | 3.80 | 2,644 | 66.00 | 169,554 |
| 1996 | 705 | 3.57 | 2,516 | 72.00 | 173,674 |
| 1997 | 715 | 3.80 | 2,718 | 84.00 | 223,176 |
| 1998 | 710 | 3.91 | 2,778 | 78.00 | 210,342 |

1/ Includes clover, timothy, grain, other tame and wild hays.

## Hay: Stocks on Farms, May 1 and December 1, Utah, 1991-1999

| Year | May 1 | December 1 |
|---|---|---|
| | 1,000 Tons | |
| 1991 | 297 | 1,593 |
| 1992 | 319 | 1,344 |
| 1993 | 246 | 1,518 |
| 1994 | 323 | 1,452 |
| 1995 | 245 | 1,481 |
| 1996 | 349 | 1,327 |
| 1997 | 302 | 1,658 |
| 1998 | 435 | 1,695 |
| 1999 | 485 | |

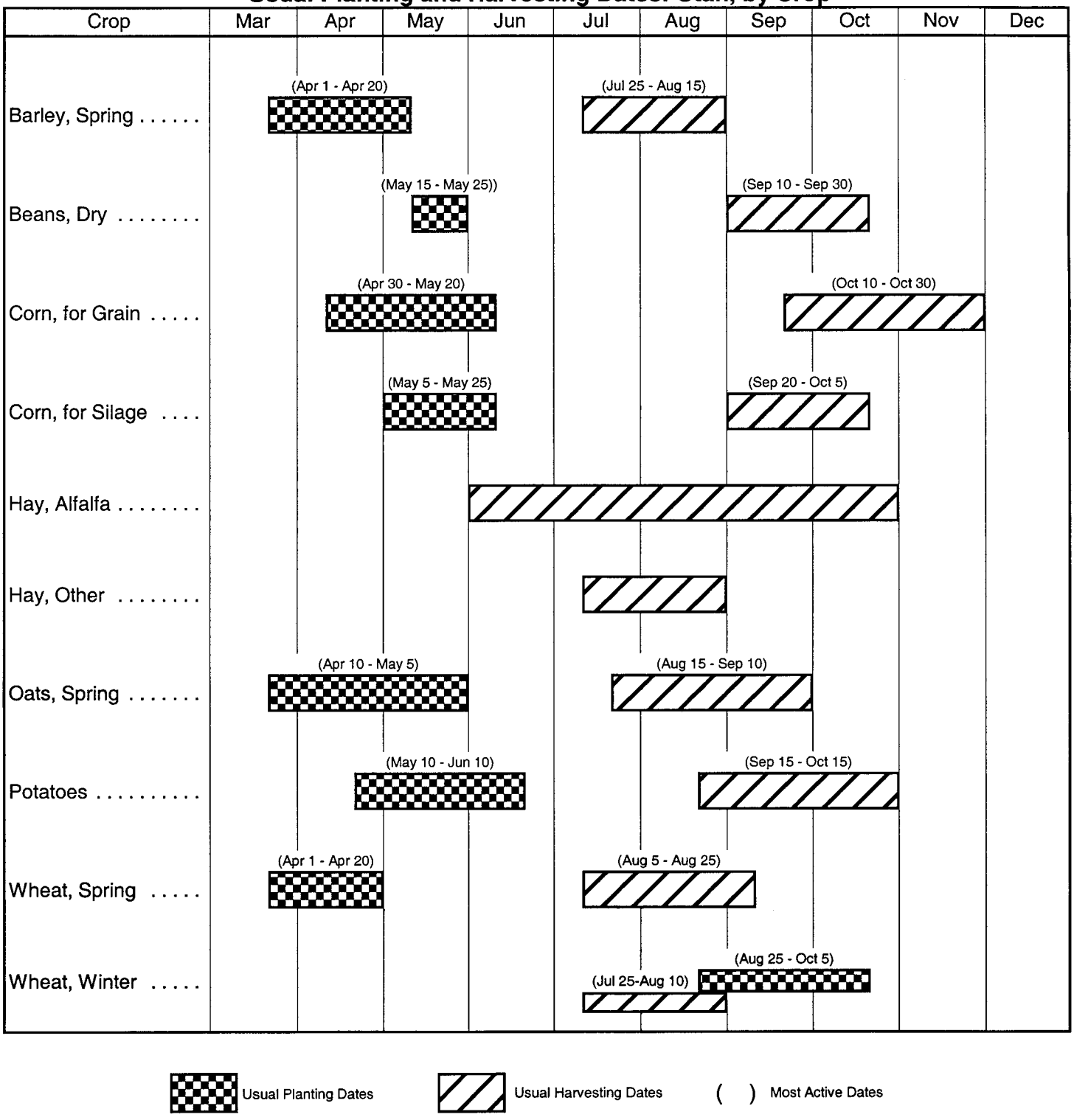


## Grain Stocks Stored Off Farm : Wheat, Barley, Oats, and Corn, Utah, by Quarters, 1991-99 1/

| Year | March 1 | June 1 | September 1 | December 1 |
|---|---|---|---|---|
| | | 1,000 Bushels | | |
| ***All Wheat*** | | | | |
| 1991 | 6,564 | 4,923 | 6,170 | 6,435 |
| 1992 | 6,504 | 3,429 | 6,711 | 6,808 |
| 1993 | 5,881 | 4,404 | 4,765 | 5,908 |
| 1994 | 6,542 | 4,369 | 5,856 | 3,264 |
| 1995 | 5,106 | 3,625 | 5,165 | 5,807 |
| 1996 | 5,143 | 3,684 | 2,998 | 3,248 |
| 1997 | 3,775 | 3,398 | 4,401 | 6,410 |
| 1998 | 5,557 | 4,894 | 5,472 | 5,538 |
| 1999 | 5,266 | 2/ | | |
| ***Barley*** | | | | |
| 1991 | 1,734 | 706 | 2,117 | 2,103 |
| 1992 | 1,427 | 605 | 2,872 | 2,538 |
| 1993 | 1,694 | 973 | 2,799 | 3,284 |
| 1994 | 2,356 | 1,106 | 3,172 | 1,757 |
| 1995 | 1,063 | 512 | 1,823 | 1,937 |
| 1996 | 1,129 | 557 | 1,915 | 1,499 |
| 1997 | 1,295 | 440 | 2,058 | 1,601 |
| 1998 | 1,367 | 679 | 1,523 | 1,417 |
| 1999 | 903 | 2/ | | |
| ***Oats*** | | | | |
| 1991 | 170 | 102 | 114 | 179 |
| 1992 | 193 | 174 | 232 | 278 |
| 1993 | 151 | 119 | 88 | 143 |
| 1994 | 191 | 72 | 3/ | 3/ |
| 1995 | 3/ | 52 | 142 | 115 |
| 1996 | 71 | 136 | 76 | 3/ |
| 1997 | 119 | 37 | 3/ | 95 |
| 1998 | 96 | 32 | 68 | 3/ |
| 1999 | 3/ | 2/ | | |
| ***Corn*** | | | | |
| 1991 | 908 | 480 | 475 | 826 |
| 1992 | 775 | 432 | 384 | 675 |
| 1993 | 543 | 519 | 306 | 581 |
| 1994 | 646 | 519 | 255 | 573 |
| 1995 | 564 | 432 | 475 | 543 |
| 1996 | 609 | 377 | 476 | 865 |
| 1997 | 697 | 261 | 3/ | 632 |
| 1998 | 727 | 560 | 630 | 687 |
| 1999 | 763 | 2/ | | |

1/ Includes stocks at mills, elevators, warehouses, terminals, and processors. 2/ Estimates available June 30, 1999. 3/ Not published to avoid disclosure of individual operations.

## Usual Planting and Harvesting Dates: Utah, by Crop




Source: USDA publication "Usual Planting and Harvesting Dates for U.S. Field Crops", December 1997

# Fruits

Utah's 1998 preliminary estimates of fruit production were lower than the previous year for peaches while apple, tart cherry, apricot, sweet cherry, and pear were up. Prices were lower for sweet cherries and pears, but higher for apples and apricots. Peach prices remained the same. Estimates are subject to revision July 7, 1999.

***Apple production*** during 1998, at 49 million pounds, was 17 percent higher than the 1997 crop, but utilized production, at 31 million pounds, was down 24 percent. Producers received an average price of 18.0 cents per pound, 1.5 cents more than the previous year. The 1998 total value of utilized production, at $5.6 million, was 17 percent lower than the previous year.

The 1998 ***apricot production*** was 200 tons. Utilized production was 180 tons, 38 percent higher than 1997. The average price received by growers was $728 per ton, up $236 from 1997. The 1998 total value of production was $131,000.

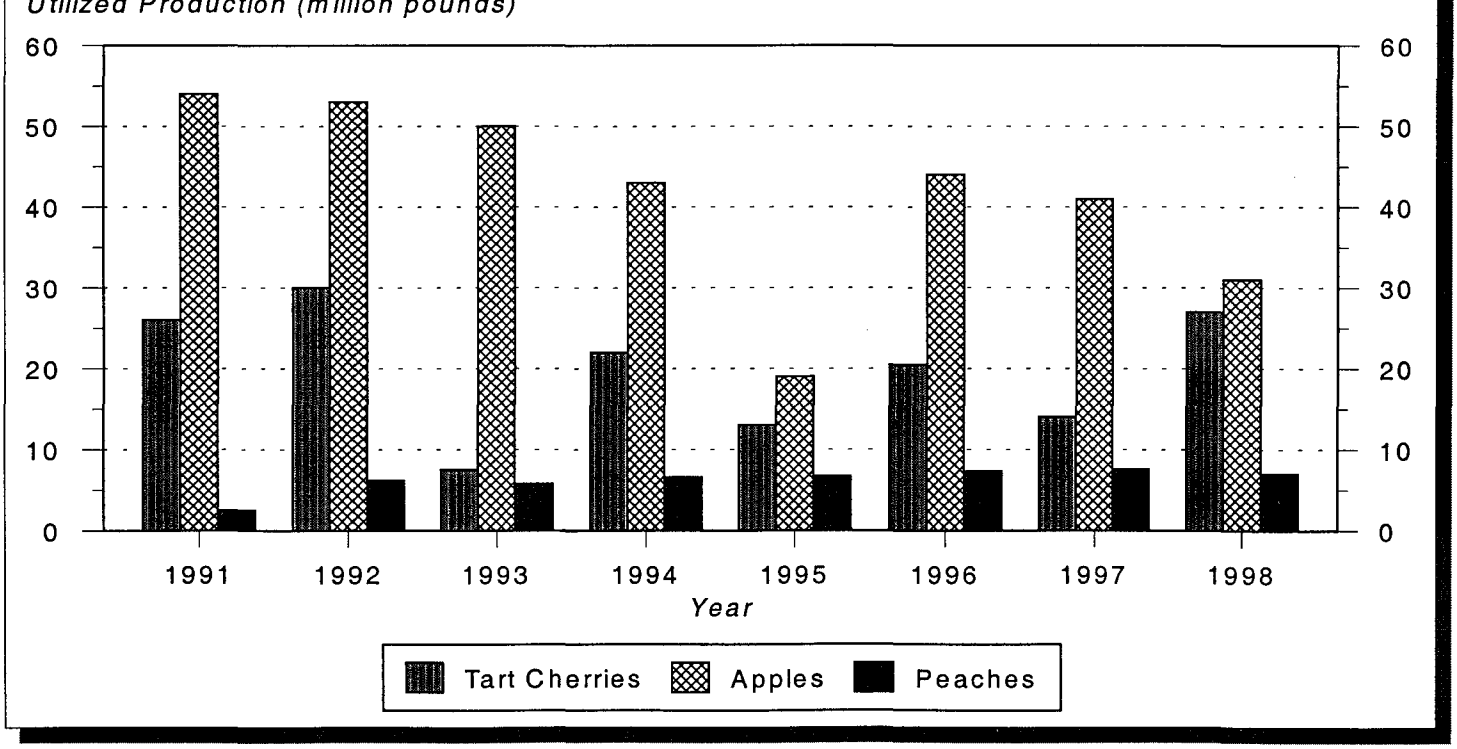
***Peach production***, at 7.7 million pounds, was 5 percent lower than 1997. Utilized production was 7.0 million pounds compared with 7.6 million pounds in 1997. Average price per pound was 27 cents bringing total value of the crop to $1.9 million, 8 percent lower than 1997.

***Pear production***, at 900 tons, was 29 percent higher than the year before. The average price received by growers was $307 per ton, $279 per ton less than 1997. Total value of the crop was $267,000, down 30 percent from the year earlier.

***Sweet Cherry*** producers harvested 2,800 tons, 2,080 tons more than 1997. Utilized production was 2,700 tons. Average price received by growers was $687 per ton, down $233 from the previous year. The total value of the crop was $1.9 million, up 188 percent from 1997.

***Tart Cherry production*** during 1998 was 33.0 million pounds, 89 percent higher than 1997. Utilized production was 27.0 million pounds. Tart cherry prices for the 1998 crop will not be published until July 7, 1999.

## *Utah Tart Cherry, Apple, and Peach Utilized Production 1991-1998*



## Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1991-98

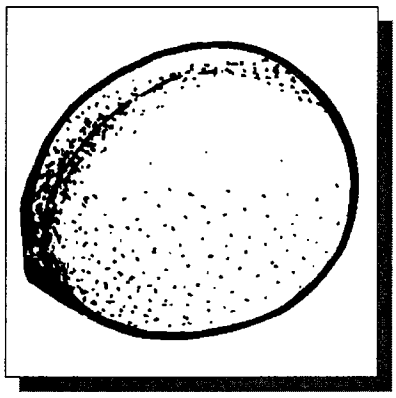
| Year | Bearing Acreage | Yield per Acre 1/ | Production | | | | Utilization | | Price per Pound | Value of Utilized Production |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Unutilized | | Utilized | Fresh | Processed | | |
| | | | | Un-harvested | Harvested not sold | | | | | |
| | Acres | Pounds | Million Pounds | | | | | | Dollars | 1,000 Dollars |
| ***Commercial Apples*** | | | | | | | | | | |
| 1991 | 3,300 | 16,700 | 55.0 | 1.0 | | 54.0 | 38.0 | 16.0 | 0.180 | 9,740 |
| 1992 | 3,100 | 18,100 | 56.0 | 3.0 | | 53.0 | 38.0 | 15.0 | 0.129 | 6,830 |
| 1993 | 3,000 | 17,700 | 53.0 | 3.0 | | 50.0 | 39.0 | 11.0 | 0.121 | 6,043 |
| 1994 | 3,000 | 16,000 | 48.0 | 5.0 | | 43.0 | 32.0 | 11.0 | 0.121 | 5,192 |
| 1995 | 3,000 | 6,670 | 20.0 | 1.0 | | 19.0 | 13.0 | 6.0 | 0.188 | 3,580 |
| 1996 | 2,800 | 17,100 | 48.0 | 1.0 | 3.0 | 44.0 | 33.0 | 11.0 | 0.136 | 5,984 |
| 1997 | 2,800 | 15,000 | 42.0 | 1.0 | | 41.0 | 34.0 | 7.0 | 0.165 | 6,747 |
| 1998 | 2,800 | 17,500 | 49.0 | 18.0 | | 31.0 | 2/ | 2/ | 0.180 | 5,580 |
| ***Tart Cherries*** | | | | | | | | | | |
| 1991 | | | 26.0 | | | 26.0 | 0.1 | 25.9 | 0.446 | 11,583 |
| 1992 | | | 33.0 | 1.0 | 2.0 | 30.0 | 0.3 | 29.7 | 0.140 | 4,200 |
| 1993 | | | 15.0 | 6.5 | 1.0 | 7.5 | 0.1 | 7.4 | 0.128 | 960 |
| 1994 | 3,500 | 7,570 | 26.5 | 1.5 | 3.0 | 22.0 | | 22.0 | 0.103 | 2,266 |
| 1995 | 3,200 | 6,880 | 22.0 | 5.0 | 4.0 | 13.0 | | 13.0 | 0.048 | 624 |
| 1996 | 3,000 | 8,830 | 26.5 | 3.5 | 2.5 | 20.5 | | 20.5 | 0.127 | 2,604 |
| 1997 | 2,800 | 6,250 | 17.5 | 2.0 | 1.5 | 14.0 | | 14.0 | 0.160 | 2,240 |
| 1998 | 2,800 | 11,800 | 33.0 | 6.0 | | 27.0 | | 27.0 | 2/ | 2/ |
| ***Peaches*** | | | | | | | | | | |
| 1991 | 1,400 | 1,790 | 2.5 | | | 2.5 | 2.5 | | 0.340 | 850 |
| 1992 | 1,200 | 6,080 | 7.3 | 1.1 | | 6.2 | 3/ | 3/ | 0.220 | 1,364 |
| 1993 | 1,000 | 6,000 | 6.0 | 0.2 | | 5.8 | 5.8 | | 0.240 | 1,392 |
| 1994 | 1,000 | 7,400 | 7.4 | 0.8 | | 6.6 | 6.6 | | 0.230 | 1,518 |
| 1995 | 1,100 | 6,270 | 6.9 | 0.2 | | 6.7 | 6.7 | | 0.250 | 1,675 |
| 1996 | 1,200 | 6,250 | 7.5 | 0.1 | 0.1 | 7.3 | 7.3 | | 0.320 | 2,336 |
| 1997 | 1,300 | 6,230 | 8.1 | 0.2 | 0.3 | 7.6 | 7.6 | | 0.270 | 2,052 |
| 1998 | 1,300 | 5,920 | 7.7 | 0.4 | 0.3 | 7.0 | 7.0 | | 0.270 | 1,890 |

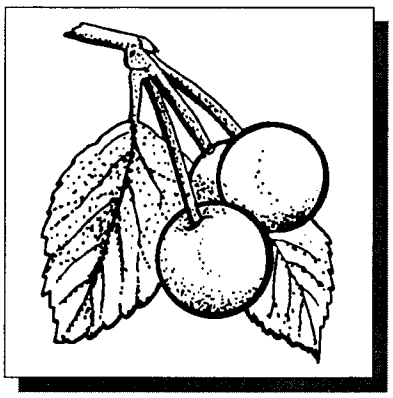
1/ Yield is based on total production. 2/ Estimates available July 7, 1999. 3/ Not published to avoid disclosure of individual operations.

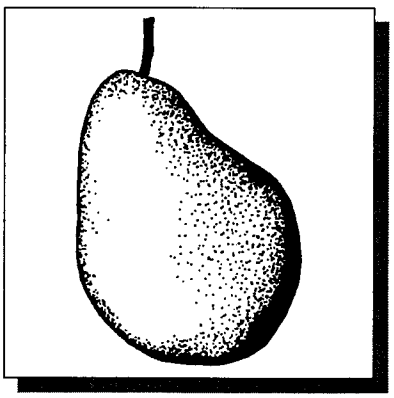
## Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1991-98

| Year | Bearing Acreage | Yield per Acre 1/ | Production | | | | Utilization | | Price per Ton | Value of Utilized Production |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | Unutilized | | Utilized | Fresh | Processed | | |
| | | | | Un-harvested | Harvested not sold | | | | | |
| | Acres | | Tons | | | | | | Dollars | 1,000 Dollars |
| ***Apricots*** | | | | | | | | | | |
| 1991 | | | 100 | 10 | | 90 | | | 820 | 74 |
| 1992 | | | 600 | 100 | | 500 | | | 620 | 310 |
| 1993 | | | 250 | 10 | | 240 | | | 525 | 126 |
| 1994 | | | 400 | 20 | | 380 | | | 511 | 194 |
| 1995 2/ | | | | | | | | | | |
| 1996 | | | 300 | 10 | | 290 | | | 859 | 249 |
| 1997 | | | 130 | | | 130 | | | 492 | 64 |
| 1998 | | | 200 | 20 | | 180 | | | 728 | 131 |
| ***Sweet Cherries*** | | | | | | | | | | |
| 1991 | 690 | 1.16 | 800 | | | 800 | 460 | 340 | 875 | 700 |
| 1992 | 660 | 4.24 | 2,800 | 50 | | 2,750 | 650 | 2,100 | 621 | 1,709 |
| 1993 | 630 | 1.98 | 1,250 | 50 | | 1,200 | 650 | 550 | 958 | 1,149 |
| 1994 | 630 | 3.65 | 2,300 | 50 | | 2,250 | 1,400 | 850 | 902 | 2,030 |
| 1995 | 630 | 3.17 | 2,000 | 100 | | 1,900 | 1,200 | 700 | 866 | 1,646 |
| 1996 | 630 | 3.65 | 2,300 | 100 | | 2,200 | 1,300 | 900 | 1,130 | 2,490 |
| 1997 | 600 | 1.20 | 720 | 20 | | 700 | 420 | 280 | 920 | 644 |
| 1998 | 600 | 4.67 | 2,800 | 100 | | 2,700 | 800 | 1,900 | 687 | 1,854 |
| ***Pears*** | | | | | | | | | | |
| 1991 | 260 | 6.15 | 1,600 | | | 1,600 | 1,600 | | 440 | 704 |
| 1992 | 220 | 5.45 | 1,200 | | | 1,200 | 1,200 | | 400 | 480 |
| 1993 | 190 | 5.79 | 1,100 | 100 | | 1,000 | 1,000 | | 400 | 400 |
| 1994 | 190 | 5.26 | 1,000 | 100 | | 900 | 900 | | 360 | 324 |
| 1995 | 190 | 4.21 | 800 | 50 | | 750 | 750 | | 460 | 345 |
| 1996 | 190 | 6.84 | 1,300 | 50 | 50 | 1,200 | 1,200 | | 483 | 580 |
| 1997 | 180 | 3.89 | 700 | 25 | 25 | 650 | 650 | | 586 | 381 |
| 1998 | 180 | 5.00 | 900 | 28 | 2 | 870 | 870 | | 307 | 267 |

1/ Yield is based on total production. 2/ No significant commercial production due to frost damage.







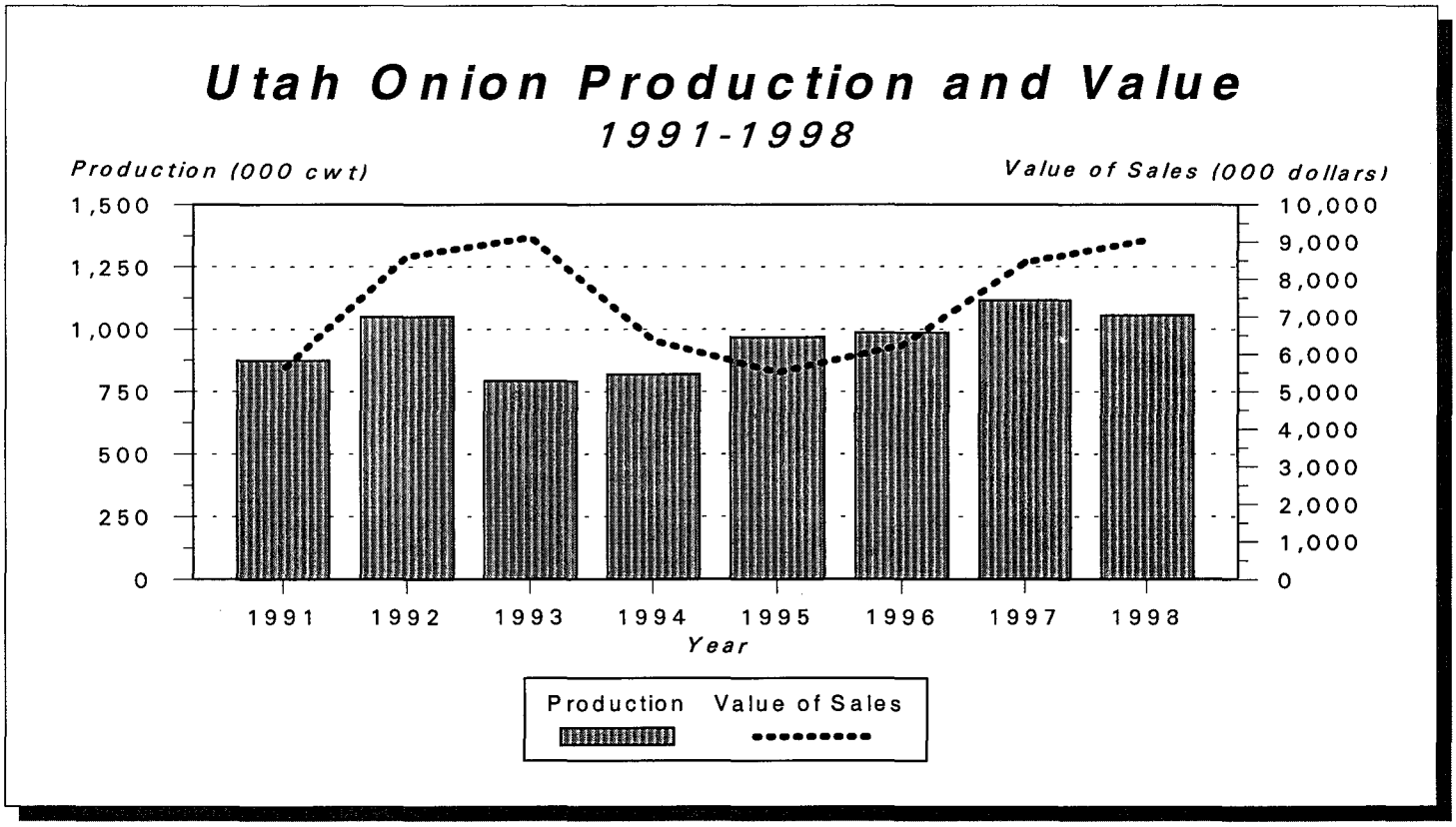
# Onions

Utah onion growers produced 1.1 million cwt of onions in 1998. This was 5 percent below the previous year's estimate. Growers planted 2,500 acres, up 100 acres from 1997. They harvested 2,400 acres during the year, an increase of 100 acres from 1997. The yield per acre was 440 cwt, 45 cwt below the previous year. Farmers received an average of $10.10 per cwt for their onions, up $1.26 per cwt from 1997. Total value of the crop was $9.1 million, up 7 percent from 1997.

**Onions: Summer Storage (Fresh Market), Acreage, Yield, Production, and Value, Utah, 1991-98**

| Year | Acreage | | Yield per Acre | Production | Quantity Not Sold 1/ | Sales | Value of Sales | |
|---|---|---|---|---|---|---|---|---|
| | Planted | Harvested | | | | | Per Cwt | Total |
| | Acres | | Cwt | 1,000 | | | Dollars | 1,000 Dollars |
| 1991 | 2,000 | 1,900 | 460 | 874 | 157 | 717 | 7.80 | 5,593 |
| 1992 | 2,100 | 2,000 | 525 | 1,050 | 158 | 892 | 9.65 | 8,608 |
| 1993 | 2,100 | 1,800 | 440 | 792 | 277 | 515 | 17.70 | 9,116 |
| 1994 | 2,200 | 2,000 | 410 | 820 | 120 | 700 | 9.10 | 6,363 |
| 1995 | 2,300 | 2,200 | 440 | 968 | 106 | 862 | 6.40 | 5,517 |
| 1996 | 2,200 | 2,100 | 470 | 987 | 207 | 780 | 8.00 | 6,240 |
| 1997 | 2,400 | 2,300 | 485 | 1,116 | 160 | 956 | 8.84 | 8,451 |
| 1998 2/ | 2,500 | 2,400 | 440 | 1,056 | 160 | 896 | 10.10 | 9,050 |

1/ Includes shrinkage, waste, and cullage. 2/ Preliminary estimates. Estimates subject to revision in the Vegetable Report July 9, 1999.



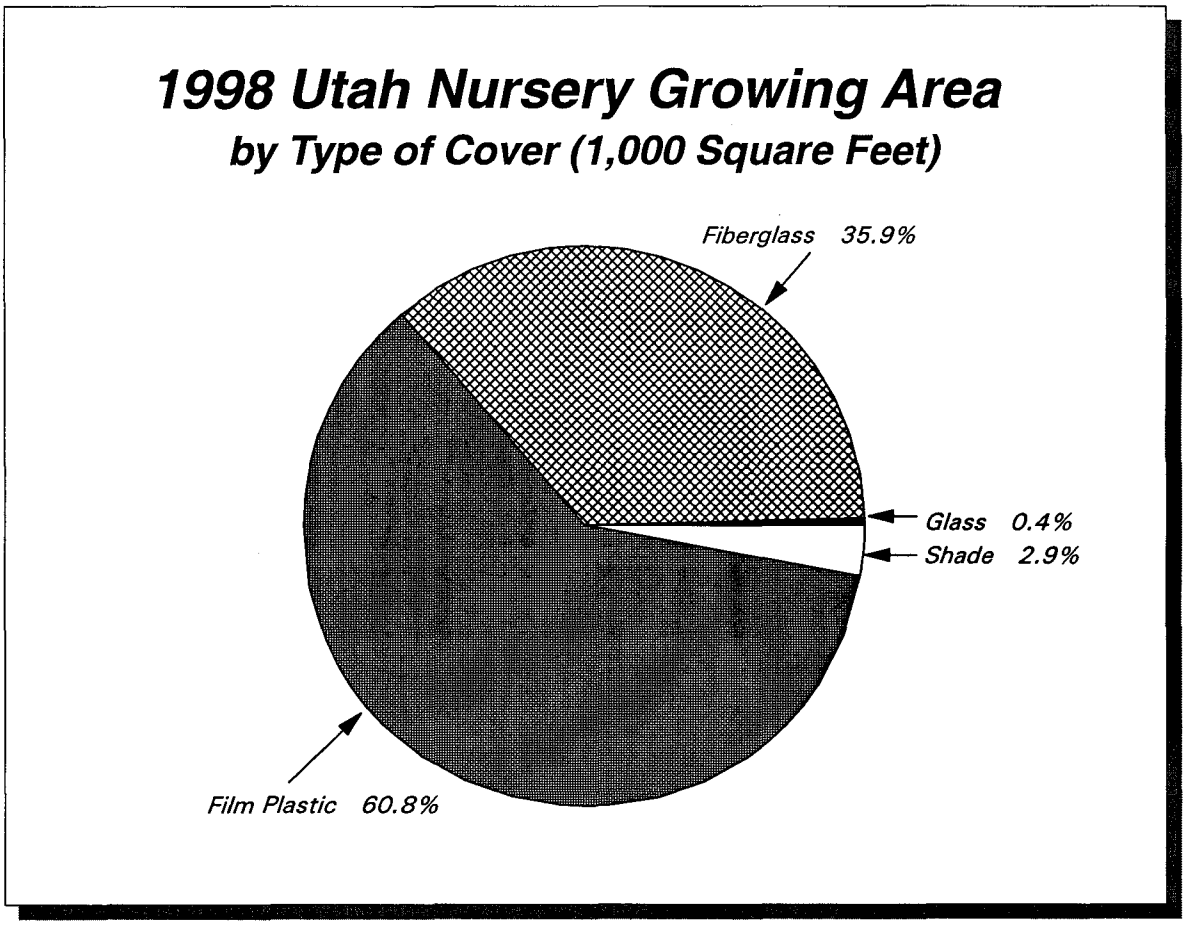
# Floriculture

In 1998 there were 106 growers of floriculture in Utah with wholesale values of sales of $10,000 or more. They had 6.5 million square feet of covered growing area. The total wholesale value of all reported crops for growers with more than $100,000 in sales was $25.9 million. Of the $25.9 million, the value of sales for cut flowers was $153,000, potted flowering plants $9.4 million, foliage for indoor or patio use $822,000, and total bedding/garden plants $15.5 million.

**Floriculture Crops: Wholesale Value of Sales, Utah, Selected Types, 1993-98** 1/

| Year | Total Cut Flowers | Total Potted Flowering Plants | Total Foliage for Indoor or Patio Use | Total Bedding/Garden Plants | Total Wholesale Value of Reported Crops |
|---|---|---|---|---|---|
| | | | 1,000 Dollars | | |
| 1992 | 3,641 | 4,689 | 1,206 | 8,547 | 18,083 |
| 1993 | 3,479 | 4,963 | 2,661 | 9,666 | 20,769 |
| 1994 | 3,036 | 7,468 | 1,707 | 10,049 | 22,260 |
| 1995 | 2,811 | 8,581 | 2,033 | 12,780 | 26,205 |
| 1996 | 1,865 | 7,326 | 2,386 | 12,532 | 24,146 |
| 1997 | 708 | 10,121 | 1,512 | 13,644 | 25,985 |
| 1998 | 153 | 9,399 | 822 | 15,495 | 25,869 |

1/ Based only on reported numbers from growers with $100,000 or more in sales of floriculture crops.



## Potted Flowers: Quantity Sold Wholesale, Utah, Selected Types, 1992-99 1/

| Year | Easter Lilies | Poinsettias | New Guinea Impatiens 2/ | Other Flowering and Foliar bedding plants | Hardy Garden Chrysanthemums |
|---|---|---|---|---|---|
| | | | 1,000 Pots | | |
| 1992 | 3/ | 447 | | 3/ | 110 |
| 1993 | 102 | 701 | | 3/ | 246 |
| 1994 | 191 | 843 | 18 | 877 | 296 |
| 1995 | 169 | 709 | 52 | 676 | 170 |
| 1996 | 175 | 467 | 47 | 1,368 | 242 |
| 1997 | 171 | 851 | 43 | 1,444 | 204 |
| 1998 | 237 | 918 | 87 | 2,323 | 158 |
| 1999 4/ | 238 | 918 | 147 | 2,492 | 150 |

See footnotes at bottom of page

## Bedding Plants: Quantity Sold Wholesale, Utah, Selected Types, 1993-99 1/

| Year | Geraniums | Impatiens 2/ | Petunias 2/ | Other Flowering and Foliar Type Bedding Plants (Flats) 5/ | Vegetable Bedding Plants |
|---|---|---|---|---|---|
| | | | 1,000 Flats | | |
| 1992 | 3/ | | | 749 | 124 |
| 1993 | 19 | | | 764 | 102 |
| 1994 | 77 | 54 | 120 | 559 | 98 |
| 1995 | 46 | 76 | 151 | 676 | 130 |
| 1996 | 62 | 80 | 163 | 656 | 124 |
| 1997 | 58 | 68 | 210 | 592 | 101 |
| 1998 | 16 | 80 | 214 | 548 | 67 |
| 1999 4/ | 16 | 82 | 236 | 558 | 70 |

See footnotes at bottom of page

## Hanging Baskets: Quantity Sold Wholesale, Utah, Selected Types, 1994-99 1/ 2/

| Year | Geraniums | Impatiens | New Guinea Impatiens | Other Flowering |
|---|---|---|---|---|
| | | 1,000 Baskets | | |
| 1994 | 18 | 11 | | 50 |
| 1995 | 17 | 10 | | 40 |
| 1996 | 14 | 8 | | 49 |
| 1997 6/ | 23 | 8 | 10 | 63 |
| 1998 | 20 | 7 | 9 | 54 |
| 1999 4/ | 19 | 7 | 9 | 78 |

See footnotes at bottom of page

1/ Based only on reported numbers from growers with $100,000 or more in sales of floriculture crops. 2/ Estimates began in 1994. 3/ Not published to avoid disclosure of individual operations. 4/ Intentions for 1999. 5/ Other flowering and foliage type bedding plants. Excludes Geraniums, Impatiens, New Guinea Impatiens, Petunias, and Vegetable type bedding plants. 6/ Estimates began in 1997.

# Cattle and Calves

Utah cattlemen had a total of 890,000 cattle and calves on farms and ranches January 1, 1999, a decrease of 20,000 head from January 1, 1998. Beef cows, at 335,000 head, were down 20,000 head from 1998. Milk cows, at 95,000 head, were up 5,000 head from January 1, 1998. Beef cow replacement heifers weighing 500 pounds or more were estimated at 72,000 head, 4,000 more than the January 1, 1998 number. Milk cow replacements totaled 43,000 head compared with 50,000 head in 1998. Other heifers, at 70,000 head, increased 10,000 head from the previous year's level. Steers 500 pounds and over totaled 120,000 head, the same as January 1, 1998. Bulls, at 22,000 head, also remained the same as the 1998 level. Calves weighing less than 500 pounds were estimated at 133,000 head, 8,000 head more than the January 1, 1998 level.

Utah's 1998 calf crop totaled 380,000 head, down 2.6 percent from the 1997 level.

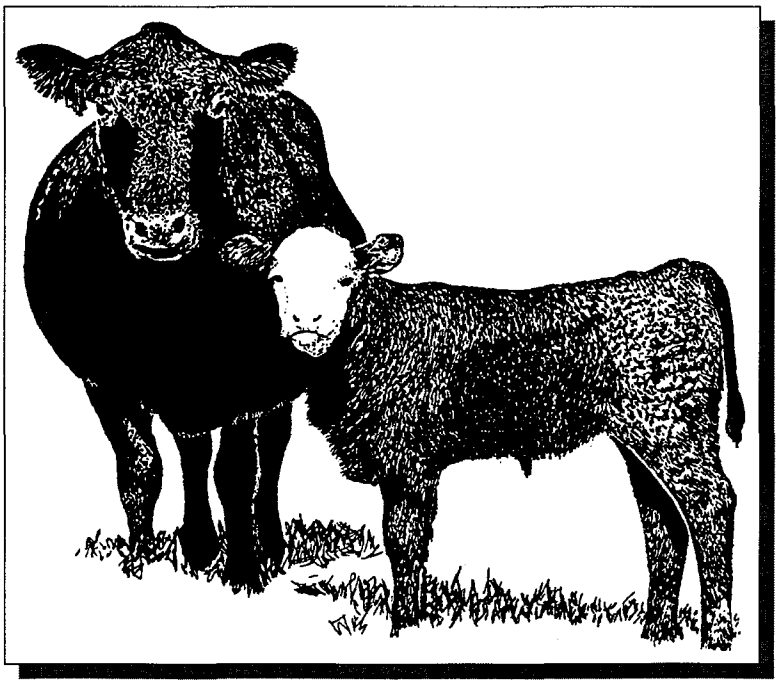
Cattle and calves on full feed for slaughter totaled 40,000 head January 1, 1999, the same as January 1, 1998.

Value per head of all cattle and calves averaged $590.00 January 1, 1999 compared with $600.00 per head on January 1, 1998. Total inventory was valued at $525.1 million, down 3.8 percent from 1998.

Utah operations with cattle and calves in 1998 totaled 8,000, an increase of 200 farms from 1997. The breakdown by size group was as follows: 4,500 operations with 1 to 49 head; 1,220 with 50 to 99 head; 1,900 with 100 to 499 head; 250 with 500 to 999 head; and 130 with 1,000 head or more. Operations with more than 500 head accounted for 40 percent of the Utah cattle inventory, and those with 100 to 499 head accounted for 43 percent.

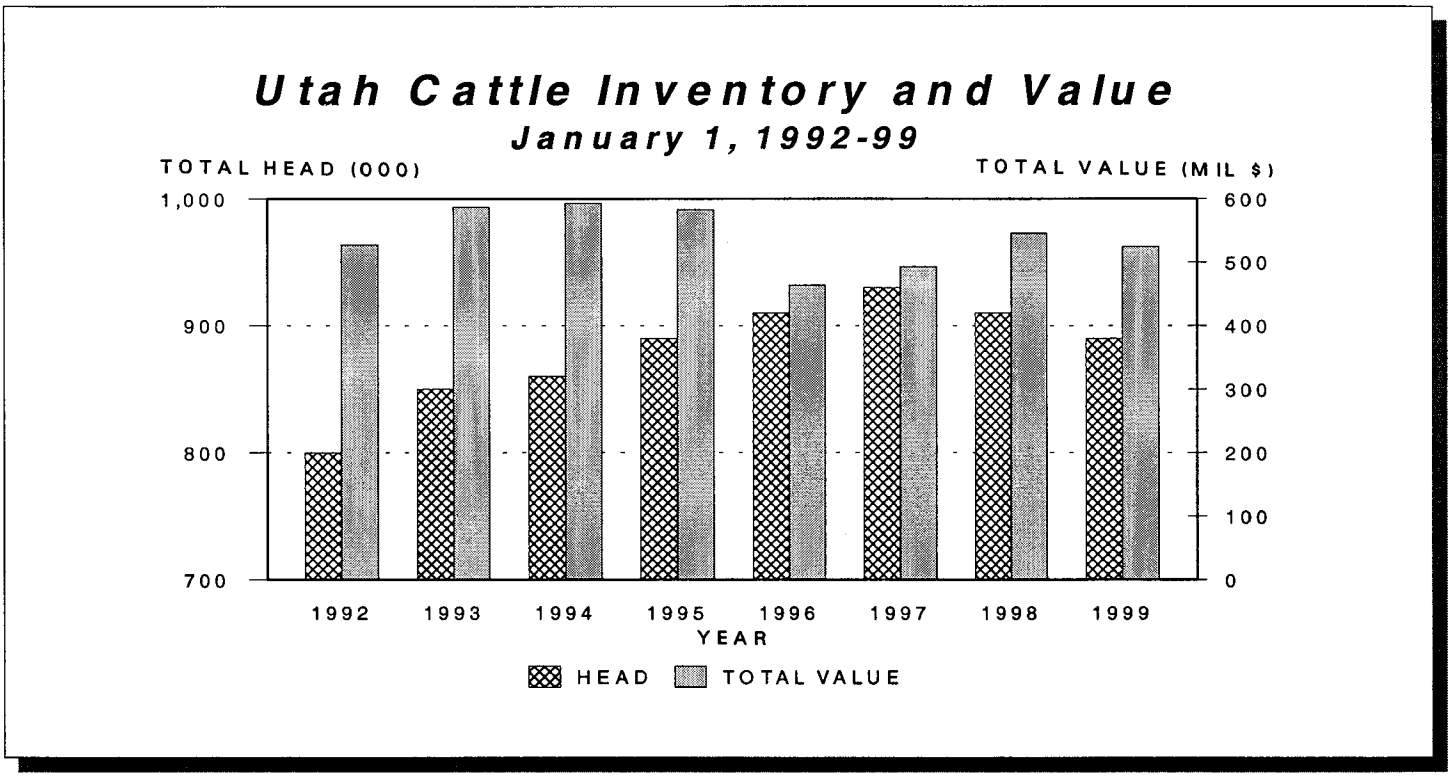
Beef production during 1998 totaled 370.7 million pounds, down 5.6 percent from the previous year. Marketings during the year totaled 470.0 million pounds, down 2.7 percent from 1997.

Cash receipts for 1998 totaled $303.1 million, down 5.2 percent from the previous year. Price of cattle averaged $63.00 per hundredweight (cwt), down $2.00 from 1997. The 1998 average slaughter cow price, at $34.00 per cwt compares with $37.00 in 1997. The 1997 steer and heifer price at $65.00 per cwt was $3.00 below 1997. The average price for calves less than 500 pounds during 1998 was $81.00 per cwt, up $1.00 from 1997.



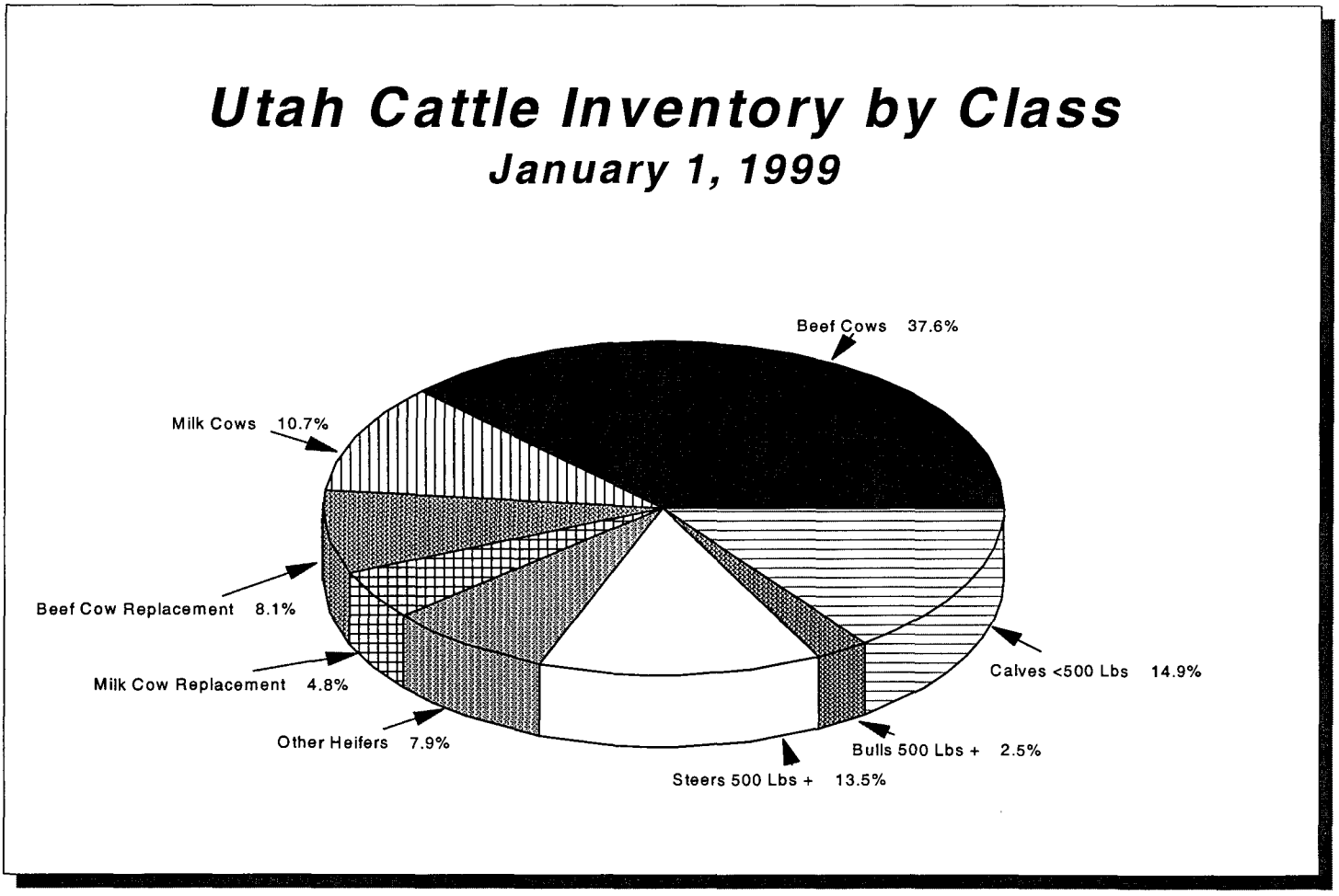
## Cattle: Farms, Inventory, and Value, Utah, January 1, 1992-99

| Year | Farms | | All Cattle and Calves on Farms January 1 | | | |
|---|---|---|---|---|---|---|
| | With Cattle | With Milk Cows | On Feed For Market | Total Number | Value | |
| | | | | | Per Head | Total |
| | ..... Number ..... | | 1,000 Head | 1,000 Head | Dollars | 1,000 Dollars |
| 1992 | 7,800 | 1,500 | 50 | 800 | 660 | 528,000 |
| 1993 | 7,800 | 1,400 | 58 | 850 | 690 | 586,500 |
| 1994 | 7,700 | 1,200 | 45 | 860 | 690 | 593,400 |
| 1995 | 7,700 | 1,000 | 60 | 890 | 655 | 582,950 |
| 1996 | 7,800 | 900 | 60 | 910 | 510 | 464,100 |
| 1997 | 7,800 | 900 | 50 | 930 | 530 | 492,900 |
| 1998 | 8,000 | 900 | 40 | 910 | 600 | 546,000 |
| 1999 | -- | -- | 40 | 890 | 590 | 525,100 |



## Cattle: Inventory by Classes and Weight, Utah, January 1, 1992-99

| Year | All Cattle and Calves | All Cows that have Calved | | | Heifers 500 Pounds & Over | | | | Steers 500 Lbs & Over | Bulls 500 Lbs & Over | Calves Under 500 Lbs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Beef Cows | Milk Cows | Total | Beef Cow Replace-ments | Milk Cow Replace-ments | Other | | | |
| | | | | | 1,000 Head | | | | | | |
| 1992 | 800 | 400 | 324 | 76 | 145 | 58 | 48 | 39 | 107 | 20 | 128 |
| 1993 | 850 | 425 | 345 | 80 | 156 | 62 | 50 | 44 | 112 | 21 | 136 |
| 1994 | 860 | 425 | 345 | 80 | 163 | 70 | 45 | 48 | 115 | 21 | 136 |
| 1995 | 890 | 430 | 345 | 85 | 175 | 70 | 46 | 59 | 130 | 21 | 134 |
| 1996 | 910 | 440 | 350 | 90 | 175 | 68 | 43 | 64 | 138 | 22 | 135 |
| 1997 | 930 | 445 | 355 | 90 | 191 | 70 | 48 | 73 | 135 | 24 | 135 |
| 1998 | 910 | 445 | 355 | 90 | 198 | 68 | 50 | 80 | 120 | 22 | 125 |
| 1999 | 890 | 430 | 335 | 95 | 185 | 72 | 43 | 70 | 120 | 22 | 133 |

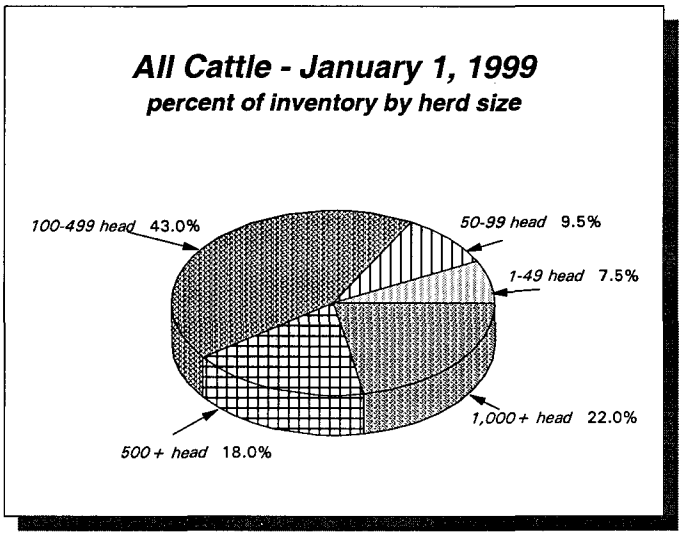


## All Cattle & Calves: Number of Operations & Percent of Total Inventory by Size Groups, 1993-1998

| Year | 1-49 Head | | 50-99 Head | | 100-499 Head | | 500-999 Head | | 1,000 Head & Over | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Operations | Inventory | Operations | Inventory | Operations | Inventory | Operations | Inventory | Operations | Inventory |
| | Number | *Percent* | Number | *Percent* | Number | *Percent* | Number | *Percent* | Number | *Percent* |
| 1993 | 4,400 | 7.0 | 1,100 | *9.0* | 1,900 | *43.0* | 260 | *18.0* | 140 | *23.0* |
| 1994 | 4,300 | 7.0 | 1,100 | *9.0* | 1,900 | *42.0* | 270 | *19.0* | 130 | *23.0* |
| 1995 | 4,300 | 7.3 | 1,100 | *8.7* | 1,900 | *42.0* | 270 | *19.0* | 130 | *23.0* |
| 1996 | 4,300 | 7.4 | 1,100 | *8.6* | 2,000 | *44.0* | 280 | *18.0* | 120 | *22.0* |
| 1997 | 4,200 | 6.7 | 1,000 | *7.3* | 2,200 | *46.0* | 260 | *17.0* | 140 | *23.0* |
| 1998 | 4,500 | 7.5 | 1,220 | *9.5* | 1,900 | *43.0* | 250 | *18.0* | 130 | *22.0* |

## Beef Cows: Number of Operations & Percent of Total Inventory by Size Groups, 1993-1998

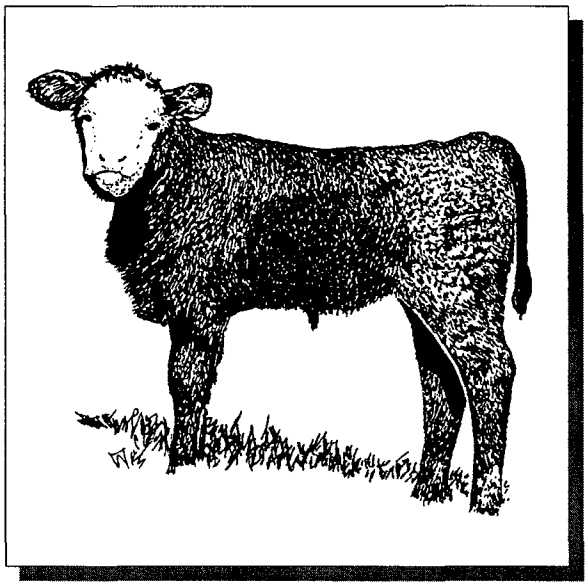
| Year | 1-49 Head | | 50-99 Head | | 100-499 Head | | 500 Head & Over | |
|---|---|---|---|---|---|---|---|---|
| | Operations | Inventory | Operations | Inventory | Operations | Inventory | Operations | Inventory |
| | Number | *Percent* | Number | *Percent* | Number | *Percent* | Number | *Percent* |
| 1993 | 3,300 | *13.0* | 750 | *14.0* | 840 | *46.0* | 110 | *27.0* |
| 1994 | 3,300 | *13.0* | 750 | *14.0* | 850 | *46.0* | 100 | *27.0* |
| 1995 | 3,300 | *13.0* | 790 | *13.0* | 900 | *46.0* | 110 | *28.0* |
| 1996 | 3,700 | *13.0* | 840 | *14.0* | 940 | *45.0* | 120 | *28.0* |
| 1997 | 3,600 | *12.0* | 870 | *15.0* | 910 | *45.0* | 120 | *28.0* |
| 1998 | 3,700 | *15.0* | 900 | *17.0* | 900 | *45.0* | 100 | *23.0* |



## Calf Crop: Utah, 1991-98

| Year | Cows That Have Calved January 1 | Calf Crop | |
|---|---|---|---|
| | | Total | Percent of Cows Calved January 1 1/ |
| | .... 1,000 Head .... | | Percent |
| 1991 | 400 | 330 | 83 |
| 1992 | 400 | 370 | 93 |
| 1993 | 425 | 355 | 84 |
| 1994 | 425 | 380 | 89 |
| 1995 | 430 | 390 | 91 |
| 1996 | 440 | 395 | 90 |
| 1997 | 445 | 390 | 88 |
| 1998 | 445 | 380 | 85 |

1/ Not strictly a calving rate. Figure represents calf crop expressed as percentage of number of cows that have calved on hand January 1 beginning of year.



## Cattle and Calves: Balance Sheet, Utah, 1991-98

| Year | Inventory Beginning of Year | Calf Crop | Inshipments | Marketings 1/ | | Farm Slaughter Cattle & Calves 2/ | Deaths | | Inventory End of Year |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Cattle | Calves | | Cattle | Calves | |
| | | | | 1,000 Head | | | | | |
| 1991 | 810 | 330 | 86 | 310 | 72 | 5 | 11 | 28 | 800 |
| 1992 | 800 | 370 | 90 | 296 | 68 | 4 | 12 | 30 | 850 |
| 1993 | 850 | 355 | 90 | 302 | 84 | 4 | 15 | 30 | 860 |
| 1994 | 860 | 380 | 99 | 314 | 87 | 4 | 14 | 30 | 890 |
| 1995 | 890 | 390 | 97 | 332 | 91 | 4 | 14 | 26 | 910 |
| 1996 | 910 | 395 | 120 | 349 | 96 | 4 | 15 | 31 | 930 |
| 1997 | 930 | 390 | 115 | 385 | 98 | 4 | 13 | 25 | 910 |
| 1998 | 910 | 380 | 113 | 375 | 95 | 4 | 12 | 27 | 890 |

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter at commercial establishments.

## Cattle and Calves: Production, Marketings and Income, Utah, 1991-98

| Year | Production 1/ | Marketings 2/ | Average Price per 100 Lbs | | Value of Production | Cash Receipts 3/ | Value of Home Consumption | Gross Income |
|---|---|---|---|---|---|---|---|---|
| | | | Cattle | Calves | | | | |
| | ..... 1,000 Pounds ..... | | ..... Dollars .... | | ..... 1,000 Dollars ..... | | | |
| 1991 | 327,505 | 387,020 | 71.30 | 95.80 | 240,100 | 283,178 | 7,415 | 290,593 |
| 1992 | 352,920 | 367,960 | 71.60 | 90.40 | 258,497 | 268,701 | 7,446 | 276,147 |
| 1993 | 354,810 | 381,930 | 78.10 | 98.00 | 284,028 | 305,141 | 7,310 | 312,451 |
| 1994 | 362,280 | 397,200 | 69.00 | 88.00 | 256,237 | 280,845 | 6,458 | 287,303 |
| 1995 | 375,125 | 419,900 | 61.40 | 71.10 | 233,546 | 261,438 | 5,747 | 267,185 |
| 1996 | 380,400 | 441,840 | 55.00 | 58.00 | 210,401 | 244,193 | 5,148 | 249,341 |
| 1997 | 392,665 | 482,880 | 65.00 | 80.00 | 260,681 | 319,899 | 6,084 | 325,983 |
| 1998 | 370,730 | 470,000 | 63.00 | 81.00 | 241,111 | 303,111 | 5,897 | 309,008 |

1/ Adjustments made for changes in inventory and for inshipments. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipts from marketings and sale of farm slaughter.

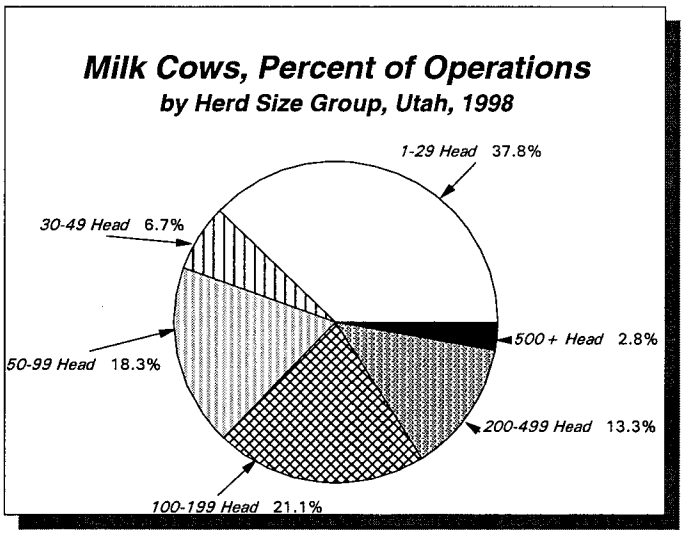
# Dairy

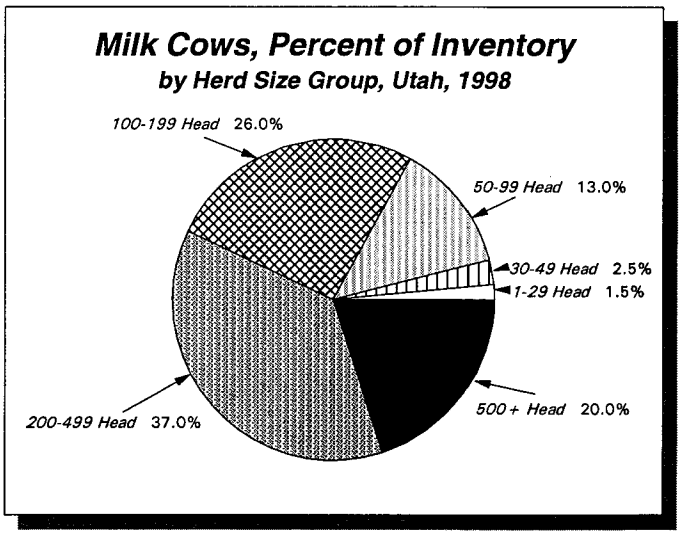
Milk production in Utah reached 1.51 billion pounds in 1998, 2 percent lower than 1997. Production per cow, at 16,811 pounds, decreased 112 pounds from the previous year. The 1998 milkfat per cow was 610 pounds, 1 pound more than the 1997 average.

There were an estimated 900 farms with one or more milk cows during 1998, the same as 1997. The breakdown of dairy farms by herd size was as follows: 340 farms with 1 to 29 head, 60 farms with 30 to 49 head, 165 farms with 50 to 99 head, 190 farms with 100 to 199 head, 120 farms with 200 to 499 head, and 25 farms with 500 or more cows. The largest percent of the Utah milk cow inventory fell in the 200 to 499 head which accounted for 37 percent. The herd size with the second largest percent of inventory was the 100 to 199 size group with 26 percent. The 340 farms in the 1 to 29 head category accounted for only 1.5 percent.

Cash receipts from milk marketings during the year totaled $229 million, an increase of 17 percent compared with 1997. The average price per hundredweight of all milk was $15.22 compared with $12.88 received the previous year.

Utah's 1998 total cheese production excluding cottage cheese was 63.3 million pounds, slightly down from the previous year. American cheese, at 30.1 million pounds, increased 1.0 percent from the 1997 level. Cheddar cheese accounted for 63 percent of the total American cheese produced. Production of Swiss cheese totaled 25.0 million pounds, a 7 percent increase from 1997. Swiss cheese accounted for 39 percent of the total cheese produced. Other types of cheese accounted for the remainder of the cheese produced. Hard ice cream production, at 10.9 million gallons, was 4 percent above 1997. There were 21 dairy plants in Utah that produced one or more dairy products in 1998, the same as 1997.



## Dairy: Milk Cows and Milk Production, Utah, by Quarter, 1991-98

| Year | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Annual Total 1/ |
|---|---|---|---|---|---|
| ***Milk Cows*** *(1,000 Head) 2/ 3/* | | | | | |
| 1991 | 79 | 80 | 80 | 78 | 79 |
| 1992 | 81 | 83 | 83 | 82 | 82 |
| 1993 | 81 | 83 | 81 | 79 | 81 |
| 1994 | 80 | 86 | 88 | 88 | 86 |
| 1995 | 87 | 88 | 88 | 88 | 88 |
| 1996 | 90 | 92 | 92 | 90 | 91 |
| 1997 | 92 | 93 | 91 | 89 | 91 |
| 1998 | 88 | 90 | 90 | 93 | 90 |
| ***Milk per Cow*** *(Pounds) 4/ 5/* | | | | | |
| 1991 | 3,772 | 4,063 | 4,088 | 4,000 | 15,975 |
| 1992 | 3,914 | 4,157 | 4,145 | 4,134 | 16,402 |
| 1993 | 3,963 | 4,181 | 4,173 | 4,127 | 16,444 |
| 1994 | 4,088 | 4,279 | 4,284 | 4,080 | 16,640 |
| 1995 | 4,057 | 4,295 | 4,307 | 4,125 | 16,739 |
| 1996 | 3,978 | 4,315 | 4,359 | 4,344 | 17,000 |
| 1997 | 4,065 | 4,366 | 4,330 | 4,112 | 16,923 |
| 1998 | 4,102 | 4,311 | 4,256 | 4,097 | 16,811 |
| ***Milk Produced*** *(Million Pounds) 4/ 6/* | | | | | |
| 1991 | 298 | 325 | 327 | 312 | 1,262 |
| 1992 | 317 | 345 | 344 | 339 | 1,345 |
| 1993 | 321 | 347 | 338 | 326 | 1,332 |
| 1994 | 327 | 368 | 377 | 359 | 1,431 |
| 1995 | 353 | 378 | 379 | 363 | 1,473 |
| 1996 | 358 | 397 | 401 | 391 | 1,547 |
| 1997 | 374 | 406 | 394 | 366 | 1,540 |
| 1998 | 361 | 388 | 383 | 381 | 1,513 |

1/ Milk cows is average number during year, milk per cow and milk produced is total for year. 2/ Includes dry cows, excludes heifers not yet freshened. 3/ Average for quarter. 4/ Excludes milk sucked by calves. 5/ Quarterly milk production divided by quarterly average of milk. 6/ Total produced for quarter.

## Milk Cows: Number of Operations & Percent of Total Inventory by Size Groups, 1993-1998

| Year | 1-29 Head | | 30-49 Head | | 50-99 Head | | 100-199 Head | | 200 Head & Over | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Operations | Inventory | Operations | Inventory | Operations | Inventory | Operations | Inventory | Operations | Inventory |
| | Number | *Percent* | Number | *Percent* | Number | *Percent* | Number | *Percent* | Number | *Percent* |
| 1993 | 660 | *1.8* | 100 | *4.2* | 290 | *22.0* | 220 | *29.0* | 130 | *43.0* |
| 1994 | 530 | *2.0* | 80 | *4.0* | 270 | *23.0* | 200 | *30.0* | 120 | *41.0* |
| 1995 | 400 | *1.5* | 70 | *3.5* | 210 | *17.0* | 200 | *32.0* | 120 | *46.0* |
| 1996 | 300 | *1.3* | 70 | *2.7* | 190 | *16.0* | 210 | *31.0* | 130 | *49.0* |
| 1997 | 320 | *1.3* | 70 | *2.7* | 165 | *13.0* | 210 | *29.0* | 135 | *54.0* |
| 1998 | 340 | *1.5* | 60 | *2.5* | 165 | *13.0* | 190 | *26.0* | 145 | *57.0* |

## Dairy: Farms, Milk Production and Milkfat, Utah, 1991-98

| Year | Farms with Milk Cows | Number of Milk Cows on Farms 1/ | Production of Milk & Milkfat | | | | |
|---|---|---|---|---|---|---|---|
| | | | Per Cow | | Total | | |
| | | | Milk | Milkfat | Percentage Milkfat | Milkfat | Milk |
| | Number | 1,000 Head | ..... Pounds ..... | | Percent | .....Million Pounds ..... | |
| 1991 | 1,500 | 79 | 15,975 | 575 | 3.60 | 45.4 | 1,262 |
| 1992 | 1,500 | 82 | 16,402 | 592 | 3.61 | 48.6 | 1,345 |
| 1993 | 1,400 | 81 | 16,444 | 592 | 3.60 | 48.0 | 1,332 |
| 1994 | 1,200 | 86 | 16,640 | 601 | 3.61 | 51.7 | 1,431 |
| 1995 | 1,000 | 88 | 16,739 | 604 | 3.61 | 53.2 | 1,473 |
| 1996 | 900 | 91 | 17,000 | 617 | 3.63 | 56.2 | 1,547 |
| 1997 | 900 | 91 | 16,923 | 609 | 3.60 | 55.4 | 1,540 |
| 1998 | 900 | 90 | 16,811 | 610 | 3.63 | 54.9 | 1,513 |

1/ Average number on farms during year, excluding heifers not yet freshened.

## Milk Disposition: Milk Used and Marketed by Producers, Utah, 1991-98

| Year | Milk Used on Farms Where Produced | | | Milk Marketed by Producers | | |
|---|---|---|---|---|---|---|
| | Fed to Calves | Used for Milk, Cream, and Butter | Total | Sold to Plants and Dealers | Sold Directly to Consumers | Total |
| | Million Pounds | | | | | |
| 1991 | 21 | 3 | 24 | 1,183 | 55 | 1,238 |
| 1992 | 22 | 3 | 25 | 1,266 | 54 | 1,320 |
| 1993 | 22 | 3 | 25 | 1,259 | 48 | 1,307 |
| 1994 | 20 | 3 | 23 | 1,356 | 52 | 1,408 |
| 1995 | 24 | 2 | 26 | 1,403 | 44 | 1,447 |
| 1996 | 24 | 3 | 27 | 1,472 | 48 | 1,520 |
| 1997 | 18 | 2 | 20 | 1,473 | 47 | 1,520 |
| 1998 | 10 | 2 | 12 | 1,446 | 55 | 1,501 |

## Milk & Cream Sold: Quantity, Price & Cash Receipts, Utah, 1991-98

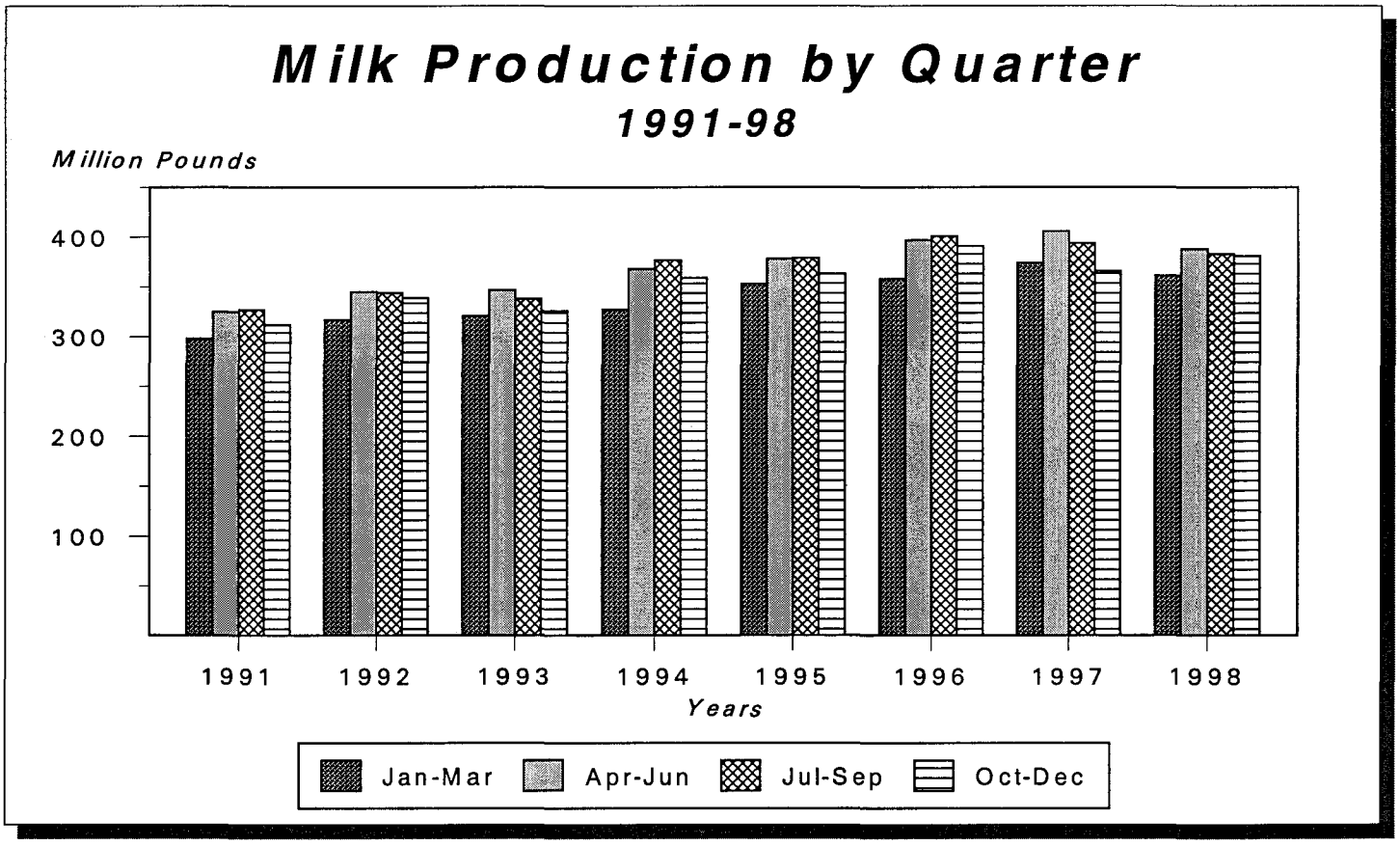
| Year | Milk Sold to Plants & Dealers | | | | Milk Sold Directly to Consumers 2/ | | |
|---|---|---|---|---|---|---|---|
| | Quantity | Percent Fluid Grade 1/ | Price per 100 Lb | Cash Receipts | Quantity | Price per Quart | Cash Receipts |
| | Million Pounds | Percent | Dollars | 1,000 Dollars | 1,000 Quarts | Cents | 1,000 Dollars |
| 1991 | 1,183 | 85 | 11.50 | 136,045 | 25,581 | 49 | 12,535 |
| 1992 | 1,256 | 85 | 12.30 | 155,718 | 25,116 | 55 | 13,814 |
| 1993 | 1,259 | 88 | 12.10 | 152,339 | 22,326 | 57 | 12,726 |
| 1994 | 1,356 | 90 | 12.40 | 168,144 | 24,186 | 57 | 13,786 |
| 1995 | 1,403 | 90 | 12.10 | 169,763 | 20,465 | 59 | 12,074 |
| 1996 | 1,472 | 91 | 14.00 | 206,080 | 22,326 | 60 | 13,396 |
| 1997 | 1,473 | 91 | 12.30 | 181,179 | 21,860 | 67 | 14,646 |
| 1998 | 1,446 | 92 | 14.60 | 211,116 | 25,581 | 68 | 17,395 |

1/ Percentage of milk sold to plants and dealers eligible for fluid use. 2/ Also includes milk produced by institutional herds.

## Milk & Cream: Marketings, Used on Fàrm, Income, and Value, Utah, 1991-98

| Year | Combined Marketings of Milk & Cream | | | | Used for Milk, Cream, Butter on Farms Where Produced | | Gross Producer Income from Milk 1/ | Farm Value of Milk Produced 2/ |
|---|---|---|---|---|---|---|---|---|
| | Milk Utilized | Average Returns | | Cash Receipts from Marketings | Milk Utilized | Value | | |
| | | Per 100 Pounds Milk | Per Pound Milkfat | | | | | |
| | Million Pounds | ..... Dollars ..... | | 1,000 Dollars | Million Pounds | ..... 1,000 Dollars ..... | | |
| 1991 | 1,238 | 12.00 | 3.33 | 148,580 | 3 | 360 | 148,940 | 151,460 |
| 1992 | 1,320 | 12.84 | 3.56 | 169,532 | 3 | 385 | 169,917 | 172,743 |
| 1993 | 1,307 | 12.63 | 3.51 | 165,065 | 3 | 379 | 165,444 | 168,222 |
| 1994 | 1,408 | 12.92 | 3.58 | 181,930 | 3 | 388 | 182,318 | 184,902 |
| 1995 | 1,447 | 12.57 | 3.48 | 181,837 | 2 | 251 | 182,088 | 185,104 |
| 1996 | 1,520 | 14.44 | 3.98 | 219,476 | 3 | 433 | 219,909 | 223,375 |
| 1997 | 1,520 | 12.88 | 3.58 | 195,825 | 2 | 258 | 196,083 | 198,402 |
| 1998 | 1,501 | 15.22 | 4.19 | 228,511 | 2 | 304 | 228,815 | 230,338 |

1/ Cash receipts from marketings of milk and cream, plus value of milk used for home consumption. 2/ Includes value of milk fed to calves.



## Cheese: Production, Utah, 1991-98

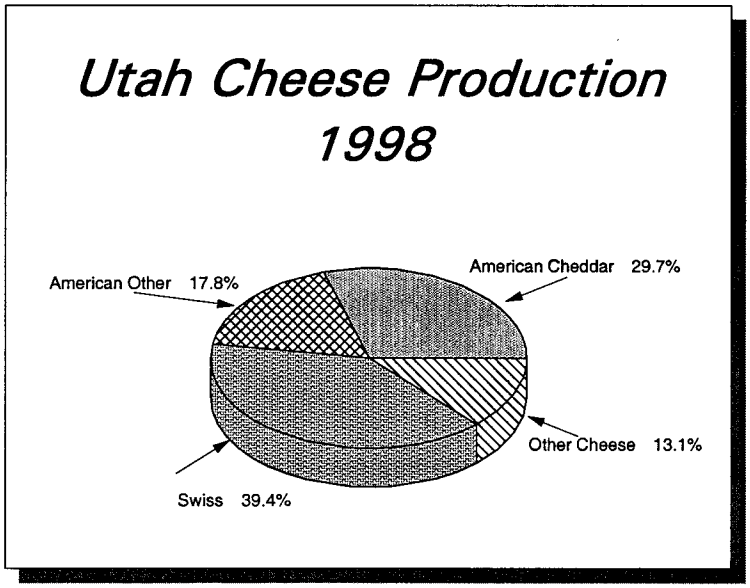
| Year | American | | | Swiss 1/ | Total Other Cheese 2/ | Total 3/ |
|---|---|---|---|---|---|---|
| | Cheddar | Other | Total | | | |
| | 1,000 Pounds | | | | | |
| 1991 | 28,900 | 14,167 | 43,067 | 24,473 | 4,034 | 71,574 |
| 1992 | 38,447 | 14,281 | 52,728 | 24,227 | 10,500 | 87,455 |
| 1993 | 24,539 | 9,858 | 34,397 | 27,134 | 16,822 | 78,353 |
| 1994 | 32,093 | 10,429 | 42,522 | 26,501 | 17,144 | 86,167 |
| 1995 | 28,756 | 10,174 | 38,930 | 29,032 | 12,931 | 80,893 |
| 1996 | 24,029 | 12,625 | 36,654 | 35,645 | 12,403 | 84,702 |
| 1997 | 18,587 | 11,092 | 29,679 | 23,239 | 10,613 | 63,531 |
| 1998 | 18,793 | 11,259 | 30,052 | 24,963 | 8,267 | 63,282 |

1/ Data for years with less than 3 plants published by permission of the firms involved. 2/ Includes cheese other than American and Swiss. 3/ Excludes cottage cheese.

## Frozen Products and Dry Whey: Production, Utah, 1991-98

| Year | Hard Ice Cream | Sherbet | Dry Whey | | |
|---|---|---|---|---|---|
| | | | Human Food | Animal Feed | Total |
| | 1,000 Gallons | | 1,000 Pounds | | |
| 1991 | 7,130 | 456 | 2/ | 2/ | 2/ |
| 1992 | 9,243 | 598 | 22,087 | 2,683 | 24,770 |
| 1993 | 9,370 | 479 | 25,283 | 1,459 | 26,742 |
| 1994 | 10,055 | 490 | 26,038 | 1,589 | 27,627 |
| 1995 | 12,035 | 638 | 24,948 | 2,333 | 27,281 |
| 1996 | 11,323 | 751 | 17,310 | 1,939 | 19,249 |
| 1997 | 10,423 | 1,096 | 21,471 | 2,278 | 23,749 |
| 1998 | 10,869 | 1,265 | 19,021 | 5,982 | 25,003 |

1/ Not published to avoid disclosure of individual operations.



# Sheep and Wool

Utah sheep and lamb inventory on January 1, 1999 totaled 400,000 head, a decline of 20,000 head from 1998. Inventory of breeding sheep and lambs at the beginning of 1999 was 360,000 head, down 5 percent from 1998. Ewes one year old and older totaled 305,000 head, down 15,000 head from a year earlier. Rams over one year of age totaled 10,000 head, the same as January 1, 1998. Breeding replacement lambs, at 45,000 head, was 5,000 head less than the 1998 inventory. Market sheep and lambs for slaughter totaled 40,000 head. The 1998 lamb crop was estimated at 350,000 head, 20,000 head below the previous year.

Sheep and lamb operations totaled 1,500 in 1998, two hundred less than 1997. January 1, 1999 sheep and lamb inventory had an average value per head of $100.00, down $20.00 from the 1998 level. Utah's sheep inventory value totaled $40.0 million, down 21 percent from the previous year.

Cash receipts during 1998 totaled $19.4 million, 26 percent lower than the 1997 level. Marketings of sheep and lambs totaled 33.2 million pounds, down 4 percent from the previous year. The average 1998 sheep price was $27.00 per hundredweight (cwt), $5.70 below the 1997 average. Lambs averaged $67.80 per cwt during 1998 which was $19.40 below the previous year.

Wool production totaled 3.2 million pounds during 1998, down 2 percent from the 1997 production level. Average fleece weight, at 9.4 pounds, was up 1 percent from the 1997 level.

NOTE: Sheep and lamb classifications for the inventory estimates were changed starting January 1, 1995. "Breeding sheep and lambs" replaced the old "stock sheep and lambs" estimates. Replacement lambs now include both ewe and ram lambs. "Market sheep and lambs" has replaced the old "sheep and lambs on feed" estimates. Market lamb estimates are by weight group. Both "breeding sheep and lambs" and "market sheep and lambs" include new crop lambs. New crop lambs are lambs born after September 30 the previous year on hand January 1. Prior to 1995, January estimates excluded the new crop lambs.

## Sheep and Lambs: Farms, Inventory, and Value, Utah, January 1, 1992-99

| Year | Operations With Sheep | All Sheep and Lambs on Farms January 1 | | | | |
|---|---|---|---|---|---|---|
| | | Number 1/ | Value | | Total Breeding 2/ | Total Market 3/ |
| | | | Per Head | Total | | |
| | Number | 1,000 Head | Dollars | 1,000 Dollars | ..... 1,000 ..... | |
| 1992 | 2,300 | 488 | 65.00 | 31,720 | 460 | 28 |
| 1993 | 2,100 | 490 | 81.00 | 39,690 | 450 | 40 |
| 1994 | 2,000 | 480 | 77.00 | 36,960 | 445 | 35 |
| 1995 | 2,000 | 470 | 84.00 | 39,480 | 400 | 70 |
| 1996 | 1,900 | 460 | 100.00 | 46,000 | 400 | 60 |
| 1997 | 1,700 | 440 | 110.00 | 48,400 | 395 | 45 |
| 1998 | 1,500 | 420 | 120.00 | 50,400 | 380 | 40 |
| 1999 | 4/ | 400 | 100.00 | 40,000 | 360 | 40 |

1/ All sheep beginning January 1, 1995 includes new crop lambs. Previous published data did not. New crop lambs are lambs born after September 30 the previous year on hand January 1. 2/ Breeding sheep and lambs beginning January 1, 1995. 3/ Market sheep and lambs beginning January 1, 1995. 4/ Estimate published with January 1, 2000 sheep inventory.

## Stock Sheep and Lambs and Lamb Crop: Inventory by Class, Utah, January 1, 1989-93 1/

| Year | Stock Sheep and lambs on Farms January 1 | | | | | Lamb Crop 2/ | |
|---|---|---|---|---|---|---|---|
| | Total | Lambs | | Sheep One Year & Over | | Number | As Percent of Ewes One year and Older 3/ |
| | | Rams & Wethers | Ewes | Rams & Wethers | Ewes | | |
| | 1,000 Head | | | | | | Percent |
| 1989 | 480 | 6 | 57 | 12 | 405 | 430 | 106 |
| 1990 | 485 | 7 | 58 | 13 | 407 | 430 | 106 |
| 1991 | 480 | 7 | 58 | 12 | 403 | 400 | 99 |
| 1992 | 460 | 7 | 53 | 12 | 388 | 400 | 103 |
| 1993 | 450 | 7 | 53 | 12 | 378 | 380 | 101 |

1/ Beginning January 1, 1994 sheep inventory estimates were changed to breeding sheep and lambs and market sheep and lambs. 2/ Lamb crop defined as lambs marked, docked or branded. 3/ Not strictly a lambing rate. Percent represents lambs saved expressed as a percent of ewes one year old and older on hand at beginning of year. See table below for estimates.

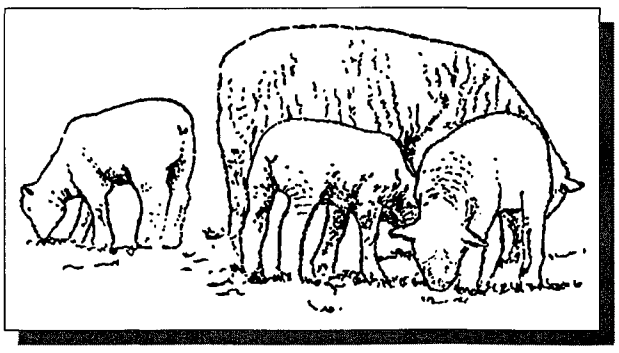
## Breeding Sheep and Lambs and Lamb Crop: Inventory by Class, Utah, January 1, 1994-99

| Year | Breeding Sheep and Lambs | | | | Lamb Crop 1/ | |
|---|---|---|---|---|---|---|
| | Total | Sheep 1 yr old and older | | Replacement Lambs | Number | As Percent of Ewes One Year and Older 2/ |
| | | Ewes | Rams | | | |
| | 1,000 Head | | | | | Percent |
| 1994 | 445 | 370 | 14 | 61 | 380 | 103 |
| 1995 | 400 | 345 | 12 | 43 | 395 | 114 |
| 1996 | 400 | 340 | 11 | 49 | 380 | 112 |
| 1997 | 395 | 335 | 11 | 49 | 370 | 110 |
| 1998 | 380 | 320 | 10 | 50 | 350 | 109 |
| 1999 | 360 | 305 | 10 | 45 | 3/ | 3/ |

1/ Lamb crop defined as lambs marked, docked or branded. 2/ Not strictly a lambing rate. Percent represents lamb crop expressed as a percent of ewes one year old and older on hand at beginning of year. 3/ Estimates published with January 1, 2000 sheep inventory.

## Market Sheep and Lambs: Inventory by Weight Group, Utah, January 1, 1995-99

| Year | Market Lambs | | | | | Market Sheep | Total Market Sheep and Lambs |
|---|---|---|---|---|---|---|---|
| | Under 65 Lbs | 65-84 Lbs | 85-104 Lbs | Over 105 Lbs | Total | | |
| | 1,000 Head | | | | | | |
| 1995 | 1 | 2 | 33 | 22 | 58 | 12 | 70 |
| 1996 | 2 | 5 | 17 | 26 | 50 | 10 | 60 |
| 1997 | 1 | 4 | 19 | 13 | 37 | 8 | 45 |
| 1998 | 1 | 2 | 14 | 15 | 32 | 8 | 40 |
| 1999 | 1 | 3 | 10 | 19 | 33 | 7 | 40 |



## Sheep & Lambs: Balance Sheet, Utah, 1991-98

| Year | Inventory Beginning of Year 1/ | Lamb Crop | Inshipments | Marketings 2/ | | Farm Slaughter 3/ | Deaths | | Inventory End of Year 1/ |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Sheep | Lambs | | Sheep | Lambs | |
| | 1,000 Head | | | | | | | | |
| 1991 | 508 | 400 | 11 | 62 | 305 | 5 | 26 | 33 | 488 |
| 1992 | 488 | 400 | 11 | 42 | 297 | 5 | 26 | 39 | 490 |
| 1993 | 490 | 380 | 10 | 39 | 298 | 6 | 25 | 32 | 480 |
| 1994 | 480 | 380 | 10 | 71 | 273 | 6 | 18 | 32 | 470 |
| 1995 | 470 | 395 | 12 | 37 | 330 | 6 | 16 | 28 | 460 |
| 1996 | 460 | 380 | 12 | 38 | 320 | 6 | 20 | 28 | 440 |
| 1997 | 440 | 370 | 9 | 50 | 305 | 5 | 16 | 23 | 420 |
| 1998 | 420 | 350 | 9 | 51 | 286 | 5 | 16 | 21 | 400 |

1/ Starting in 1994, beginning and end of year inventories includes new crop lambs. 2/ Includes custom slaughter for use on farms where produced, and State outshipments, but excludes interfarm sales within the State. 3/ Excludes custom slaughter for farmers at commercial establishments.

## Sheep & Lambs: Production, Marketings & Income, Utah, 1991-98

| Year | Production 1/ | Marketings 2/ | Price per 100 Pounds | | Value of Production | Cash Receipts 3/ | Value of Home Consumption | Gross Income |
|---|---|---|---|---|---|---|---|---|
| | | | Sheep | Lambs | | | | |
| | 1,000 Pounds | | Dollars | | 1,000 Dollars | | | |
| 1991 | 33,165 | 36,330 | 20.40 | 43.20 | 12,970 | 13,574 | 389 | 13,963 |
| 1992 | 32,300 | 32,610 | 24.30 | 51.80 | 15,307 | 15,159 | 466 | 15,625 |
| 1993 | 32,384 | 32,400 | 21.50 | 60.40 | 17,471 | 17,294 | 606 | 17,900 |
| 1994 | 32,268 | 34,950 | 23.60 | 64.10 | 18,072 | 18,090 | 644 | 18,734 |
| 1995 | 32,808 | 34,980 | 21.00 | 77.00 | 23,017 | 23,827 | 764 | 24,591 |
| 1996 | 31,840 | 34,320 | 23.90 | 85.90 | 24,646 | 25,947 | 750 | 26,697 |
| 1997 | 31,955 | 34,770 | 32.70 | 87.20 | 25,165 | 26,232 | 667 | 26,899 |
| 1998 | 30,445 | 33,210 | 27.00 | 67.80 | 19,044 | 19,395 | 521 | 19,916 |

1/ Adjustments made for changes in inventory and for inshipments. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipt from marketings and sale of farm slaughter.

## Wool: Production and Value, Utah, 1991-98

| Year | Sheep & Lambs Shorn 1/ | Weight per Fleece | Shorn Wool Production | Average Price per Pound | Value 2/ |
|---|---|---|---|---|---|
| | 1,000 Head | Pounds | 1,000 Pounds | Dollars | 1,000 Dollars |
| 1991 | 456 | 10.4 | 4,741 | 0.51 | 2,418 |
| 1992 | 440 | 9.9 | 4,377 | 0.78 | 3,414 |
| 1993 | 405 | 9.7 | 3,930 | 0.57 | 2,240 |
| 1994 | 384 | 10.0 | 3,843 | 0.70 | 2,690 |
| 1995 | 364 | 9.6 | 3,500 | 1.01 | 3,535 |
| 1996 | 358 | 9.2 | 3,300 | 0.65 | 2,145 |
| 1997 | 344 | 9.3 | 3,213 | 0.75 | 2,410 |
| 1998 | 337 | 9.4 | 3,157 | 0.62 | 1,957 |

1/ Includes shearing at commercial feeding yards. 2/ Production multiplied by annual average price.

# Sheep and Lamb Losses by Cause

Utah farmers and ranchers lost 73,400 sheep and lambs to all causes in 1998.

**Lambs lost before docking** totaled 22,400, **lambs lost after docking** totaled 29,000, and sheep one year old and older lost totaled 22,000. The largest single cause of death in lambs from predators before docking was from coyotes taking 4,000. This accounted for 17.9 percent of all lambs lost before docking. Coyotes also accounted for the largest number of lambs lost after docking at 13,200, a 45.5 percent loss.

Sheep one year old and older losses to coyotes, at 4,500, was the single largest cause, accounting for 20.5 percent. Total losses to coyotes equaled 21,700 which was 30.0 percent of all losses to sheep and lambs in the state. Other loss totals are shown.

*Cooperation: Data were collected in conjunction with the National Agricultural Statistics Service January 1 Sheep Report. Utah Department of Agriculture and Food provided funding for the "Loss by Cause" portion of the survey. Much appreciation goes out to all the sheep producers who cooperated in the effort to compile these statistics.*

## Sheep & Lamb: Loss by Cause, 1997-98

| Cause of Loss | Lambs | | | | Sheep | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of head | | Value in Dollars 1/ | | Number of head | | Value in Dollars 2/ | | Number of head | | Value in Dollars | |
| | 1997 3/ | 1998 | 1997 3/ | 1998 | 1997 3/ | 1998 | 1997 3/ | 1998 | 1997 3/ | 1998 | 1997 3/ | 1998 |
| | .. Number .. | | .. Thousand .. | | .. Number .. | | .. Thousand .. | | .. Number .. | | .. Thousand .. | |
| ***Predator*** | | | | | | | | | | | | |
| Dog | 1,200 | 900 | 62 | 42 | 1,100 | 1,200 | 127 | 132 | 2,300 | 2,100 | 189 | 174 |
| Coyote | 18,600 | 17,200 | 966 | 800 | 6,000 | 4,500 | 690 | 495 | 24,600 | 21,700 | 1,656 | 1,295 |
| Eagle | 400 | 1,100 | 21 | 51 | 0 | 0 | 0 | 0 | 400 | 1,100 | 21 | 51 |
| Bear | 1,400 | 1,700 | 73 | 79 | 1,200 | 1,000 | 138 | 110 | 2,600 | 2,700 | 211 | 189 |
| Mtn. Lion | 5,000 | 4,400 | 260 | 205 | 2,000 | 1,800 | 230 | 198 | 7,000 | 6,200 | 490 | 403 |
| Fox | 1,000 | 900 | 52 | 42 | 0 | 0 | 0 | 0 | 1,000 | 900 | 52 | 42 |
| Bobcat | 200 | 600 | 10 | 28 | 100 | 100 | 12 | 11 | 300 | 700 | 22 | 39 |
| Other animals | 400 | 300 | 21 | 14 | 0 | 100 | 0 | 11 | 400 | 400 | 21 | 25 |
| Total Predator | 28,200 | 27,100 | 1,464 | 1,260 | 10,400 | 8,700 | 1,196 | 957 | 38,600 | 35,800 | 2,660 | 2,217 |
| ***Non-Predator*** | | | | | | | | | | | | |
| Weather conditions | 5,200 | 5,900 | 270 | 274 | 600 | 1,000 | 69 | 110 | 5,800 | 6,900 | 339 | 384 |
| Diseases | 4,100 | 3,700 | 213 | 172 | 1,700 | 1,600 | 196 | 176 | 5,800 | 5,300 | 408 | 348 |
| Poison | 1,300 | 1,000 | 68 | 47 | 1,300 | 1,300 | 150 | 143 | 2,600 | 2,300 | 217 | 190 |
| Lambing complications | 3,200 | 3,100 | 166 | 144 | 2,000 | 2,000 | 230 | 220 | 5,200 | 5,100 | 396 | 364 |
| Old age | 0 | 0 | 0 | 0 | 2,400 | 2,700 | 276 | 297 | 2,400 | 2,700 | 276 | 297 |
| Thefts | 300 | 0 | 16 | 0 | 100 | 200 | 12 | 22 | 400 | 200 | 27 | 22 |
| On back | 100 | 100 | 5 | 5 | 800 | 600 | 92 | 66 | 900 | 700 | 97 | 71 |
| Other causes | 900 | 1,500 | 47 | 70 | 200 | 900 | 23 | 99 | 1,100 | 2,400 | 70 | 169 |
| Total Non-predator | 15,100 | 15,300 | 784 | 711 | 9,100 | 10,300 | 1,047 | 1,133 | 24,200 | 25,600 | 1,831 | 1,844 |
| ***Unknown Causes*** | | | | | | | | | | | | |
| Total Unknown Causes | 9,200 | 9,000 | 478 | 419 | 4,500 | 3,000 | 518 | 330 | 13,700 | 12,000 | 995 | 749 |
| ***Totol Losses*** | | | | | | | | | | | | |
| Total Losses | 52,500 | 51,400 | 2,726 | 2,390 | 24,000 | 22,000 | 2,760 | 2,420 | 76,500 | 73,400 | 5,486 | 4,810 |

1/ Lamb value equal to market year average price received for lambs multiplied by an average weight of 60 pounds per lamb. 2/ Sheep value equal to average of 1998 and 1999 average value per head. 3/ Revised.

## Sheep & Lamb: Percent of Loss by Cause 1/

| Cause of Loss | Lambs | | | | Sheep | |
|---|---|---|---|---|---|---|
| | Before Docking | | After Docking | | | |
| | 1997 2/ | 1998 | 1997 2/ | 1998 | 1997 2/ | 1998 |
| | Percent | | | | | |
| ***Predator*** | | | | | | |
| Dog | 2.2 | 1.3 | 2.3 | 2.1 | 4.6 | 5.5 |
| Coyote | 22.2 | 17.9 | 45.3 | 45.5 | 25.0 | 20.5 |
| Eagle | 0.9 | 2.7 | 0.7 | 1.7 | 0.0 | 0.0 |
| Bear | 0.4 | 0.4 | 4.3 | 5.5 | 5.0 | 4.5 |
| Mtn. Lion | 4.9 | 3.6 | 13.0 | 12.4 | 8.3 | 8.2 |
| Fox | 2.2 | 1.8 | 1.7 | 1.7 | 0.0 | 0.0 |
| Bobcat | 0.4 | 0.9 | 0.3 | 1.4 | 0.4 | 0.5 |
| Other animals | 0.9 | 0.0 | 0.7 | 1.0 | 0.0 | 0.5 |
| Total Predator | 34.2 | 28.6 | 68.3 | 71.4 | 43.3 | 39.5 |
| ***Non-Predator*** | | | | | | |
| Weather conditions | 18.2 | 23.2 | 3.7 | 2.4 | 2.5 | 4.5 |
| Diseases | 9.8 | 10.3 | 6.3 | 4.8 | 7.1 | 7.3 |
| Poison | 0.4 | 0.4 | 4.0 | 3.1 | 5.4 | 5.9 |
| Lambing | 14.2 | 13.8 | 0.0 | 0.0 | 8.3 | 9.1 |
| Old age | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 12.3 |
| Thefts | 0.0 | 0.0 | 1.0 | 0.0 | 0.4 | 0.9 |
| On back | 0.0 | 0.0 | 0.3 | 0.3 | 3.3 | 2.7 |
| Other causes | 2.7 | 2.7 | 1.0 | 3.1 | 0.8 | 4.1 |
| Total Non-predator | 45.3 | 50.4 | 16.3 | 13.8 | 37.9 | 46.8 |
| ***Unknown Causes*** | | | | | | |
| Total Unknown | 20.4 | 21.0 | 15.3 | 14.8 | 18.8 | 13.6 |
| ***Total Losses*** | | | | | | |
| Total Losses | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Totals may not equal parts due to rounding. 2/ Revised.

# Hogs and Pigs

The Utah hog and pig inventory on December 1, 1998 was 380,000 head, 29 percent above the December 1, 1997 level. This is a new record high hogs and pigs inventory for Utah. The old record was 295,000 set in 1997.

The total pig crop for the year was 657,000 head, 51 percent above 1997. A total of 75,500 sows farrowed during 1998, up 50 percent from 1997. The number of farms with hogs or pigs in 1998 totaled 500, the same as 1997.

The December 1, 1998 average value per head of Utah's hogs and pigs was $49.00, down sharply from the $88.00 of 1997. The total inventory value was $18.6 million, down 28 percent from a year earlier.

Cash receipts during the December 1, 1997 through November 30, 1998 period totaled $49.5 million, up 29 percent from 1997. Marketings during 1998 were at 123.1 million pounds, 89 percent above the previous year. Hog prices averaged $40.20 per cwt, down $18.60 from the 1997 average price.

**Hogs and Pigs: Farms, Inventory and Value, Utah, 1991-98**

| Year | Farms with Hogs | Hogs and Pigs on Farms December 1 | | |
|---|---|---|---|---|
| | | Number | Value | |
| | | | Per Head | Total |
| | Number | 1,000 Head | Dollars | 1,000 Dollars |
| 1991 | 900 | 38 | 77.00 | 2,926 |
| 1992 | 900 | 44 | 80.00 | 3,520 |
| 1993 | 800 | 40 | 82.00 | 3,280 |
| 1994 | 800 | 44 | 58.00 | 2,552 |
| 1995 | 700 | 62 | 76.00 | 4,712 |
| 1996 | 600 | 163 | 99.00 | 16,137 |
| 1997 | 500 | 295 | 88.00 | 25,960 |
| 1998 | 500 | 380 | 49.00 | 18,620 |

**Hogs and Pigs: Inventory by Class and Weight Group, Utah, December 1, 1991-98**

| Year | Total | Breeding | Market | Market Hogs & Pigs by Weight Group | | | |
|---|---|---|---|---|---|---|---|
| | | | | Under 60 Lbs | 60-119 Lbs | 120-179 Lbs | 180 Lbs & Over |
| | | | | 1,000 Head | | | |
| 1991 | 38 | 5 | 33 | 11 | 8 | 7 | 7 |
| 1992 | 44 | 6 | 38 | 14 | 9 | 9 | 6 |
| 1993 | 40 | 5 | 35 | 12 | 9 | 8 | 6 |
| 1994 | 44 | 14 | 30 | 11 | 8 | 6 | 5 |
| 1995 | 62 | 19 | 43 | 13 | 11 | 11 | 8 |
| 1996 | 163 | 33 | 130 | 52 | 32 | 32 | 14 |
| 1997 | 295 | 55 | 240 | 102 | 42 | 38 | 58 |
| 1998 | 380 | 60 | 320 | 130 | 60 | 60 | 70 |

## Hogs and Pigs: Balance Sheet, Utah, 1991-98

| Year | Inventory Beginning of Year 1/ | Annual Pig Crop | Inship-ments | Marketings 2/ | Farm Slaughter 3/ | Deaths | Inventory End of Year 1/ |
|---|---|---|---|---|---|---|---|
| | | | | 1,000 Head | | | |
| 1991 | 33 | 57 | 3 | 49 | 1 | 5 | 38 |
| 1992 | 38 | 61 | 6 | 56 | 1 | 4 | 44 |
| 1993 | 44 | 59 | 5 | 63 | 1 | 4 | 40 |
| 1994 | 40 | 58 | 13 | 61 | 1 | 5 | 44 |
| 1995 | 44 | 82 | 15 | 74 | 1 | 4 | 62 |
| 1996 | 62 | 234 | 4 | 124 | 1 | 12 | 163 |
| 1997 | 163 | 436 | 2 | 272 | 1 | 33 | 295 |
| 1998 | 295 | 657 | 2 | 514 | 1 | 59 | 380 |

1/ Hogs and pigs inventory is as of Dec. 1. 2/ Includes custom slaughter for use on farm where produced, State out-shipments, but excludes interfarm sales within the State. 3/ Excludes custom slaughter for farmers at commercial establishments.

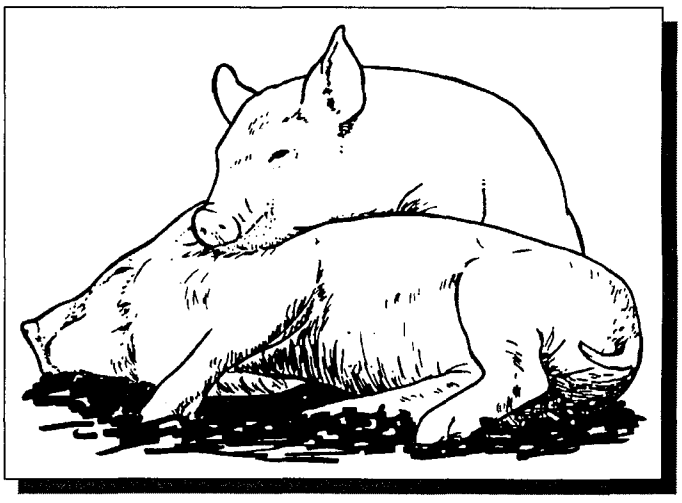
## Hogs and Pigs: Production and Income, Utah, 1991-98

| Year | Production 1/ | Market-ings 2/ | Price per 100 Lbs | Value of Production | Cash Receipts 3/ | Value of Home Consump-tion | Gross Income |
|---|---|---|---|---|---|---|---|
| | ..... 1,000 Pounds ..... | | Dollars | ..... 1,000 Dollars ..... | | | |
| 1991 | 12,494 | 11,520 | 42.80 | 5,332 | 4,931 | 205 | 5,136 |
| 1992 | 13,949 | 13,200 | 33.60 | 4,663 | 4,435 | 161 | 4,596 |
| 1993 | 14,855 | 14,880 | 38.00 | 5,645 | 5,654 | 182 | 5,836 |
| 1994 | 16,065 | 14,400 | 33.00 | 5,103 | 4,752 | 158 | 4,910 |
| 1995 | 19,405 | 16,570 | 33.80 | 6,347 | 5,629 | 162 | 5,791 |
| 1996 | 41,510 | 29,520 | 54.00 | 22,430 | 15,941 | 259 | 16,200 |
| 1997 | 84,510 | 65,040 | 58.80 | 49,676 | 38,244 | 282 | 38,526 |
| 1998 | 133,435 | 123,120 | 40.20 | 53,606 | 49,494 | 193 | 49,687 |

1/ Adjustments made for inshipments and changes in inventories. 2/ Excludes interfarm sales within the State and custom slaughter for use on farms where produced. 3/ Includes receipts from marketings and from sales of farm slaughtered meat.

## Pig Crop: Sows Farrowing and Pigs Saved, Utah, 1991-98

| Year | Sows Farrowing | Pigs per Litter | Pigs Saved |
|---|---|---|---|
| | 1,000 Head | Head | 1,000 Head |
| 1991 | 7.8 | 7.30 | 57 |
| 1992 | 8.3 | 7.35 | 61 |
| 1993 | 9.0 | 6.56 | 59 |
| 1994 | 8.0 | 7.25 | 58 |
| 1995 | 10.1 | 8.12 | 82 |
| 1996 | 28.0 | 8.36 | 234 |
| 1997 | 50.5 | 8.63 | 436 |
| 1998 | 75.5 | 8.70 | 657 |



# Chickens and Eggs

The value of eggs produced in Utah during 1998 totaled $20.7 million, 11 percent below the 1997 level. Total production, at 478 million eggs, was down slightly from 1997. The average price of eggs was 52.0 cents per dozen, 5.6 cents below 1997.

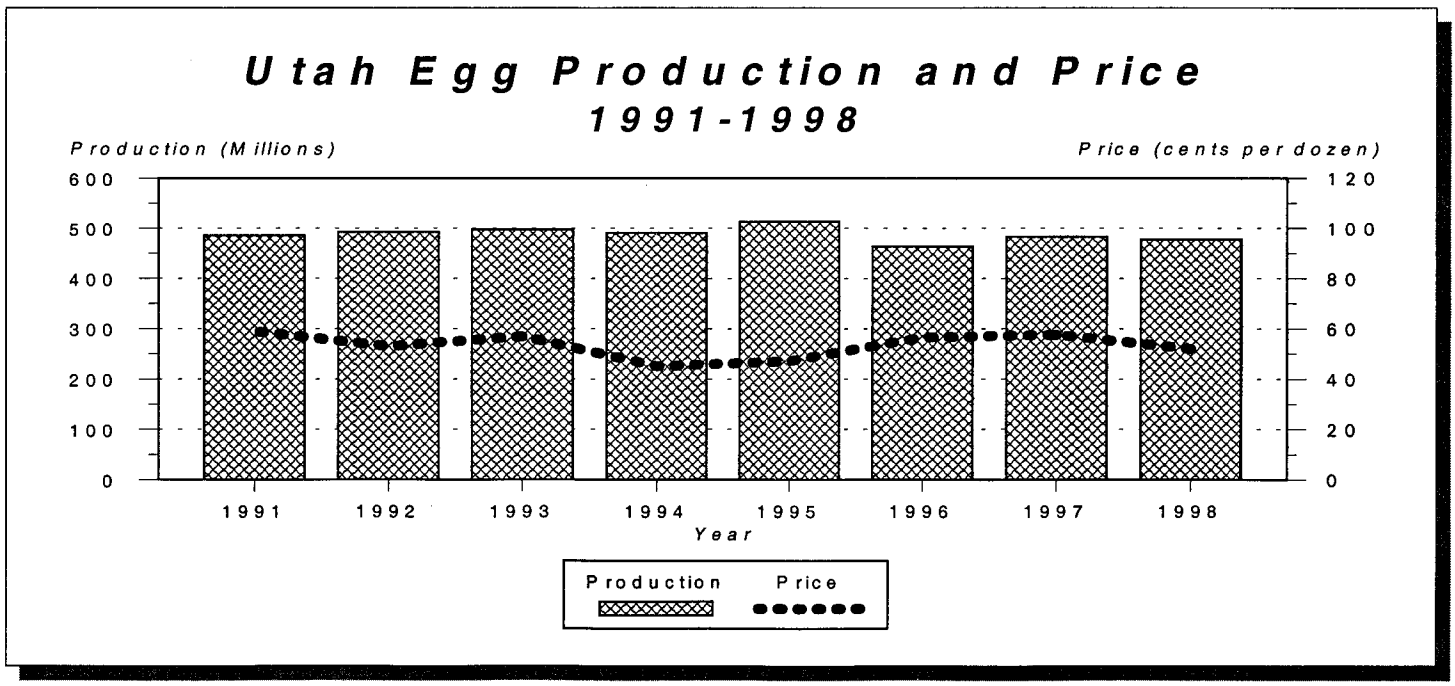
The average number of layers during the year was 1.8 million, slightly higher than the 1997 level. Eggs produced per layer was 262 compared with 266 for 1997. Pounds of chicken sold (primarily cull laying hens) at 4.1 million decreased 4 percent from 1997.

The average price per pound of chickens sold was 3 cents, the same as 1997. The value of chickens sold in 1998 was $123,000, down 4 percent from 1997.

**Layers and Eggs: Number, Production and Value of Production, Utah, 1991-98** 1/

| Year | Average Number of Layers | Eggs per Layer 2/ | Total Egg Production | Price per Dozen | Value of Production |
|---|---|---|---|---|---|
| | 1,000 Head | Number | Millions | Dollars | 1,000 Dollars |
| 1991 | 1,876 | 259 | 486 | 0.590 | 23,895 |
| 1992 | 1,964 | 251 | 493 | 0.530 | 21,774 |
| 1993 | 2,001 | 249 | 498 | 0.570 | 23,655 |
| 1994 | 1,885 | 260 | 491 | 0.451 | 18,453 |
| 1995 | 1,950 | 263 | 513 | 0.471 | 20,135 |
| 1996 | 1,746 | 266 | 464 | 0.566 | 21,885 |
| 1997 | 1,819 | 266 | 483 | 0.576 | 23,184 |
| 1998 | 1,824 | 262 | 478 | 0.520 | 20,713 |

1/ Estimates cover the 12 month period, December 1 previous year, through November 30. 2/ Total egg production divided by average number of layers on hand.



## Chicken Inventory: Number and Value, Utah, December 1, 1991-98 1/

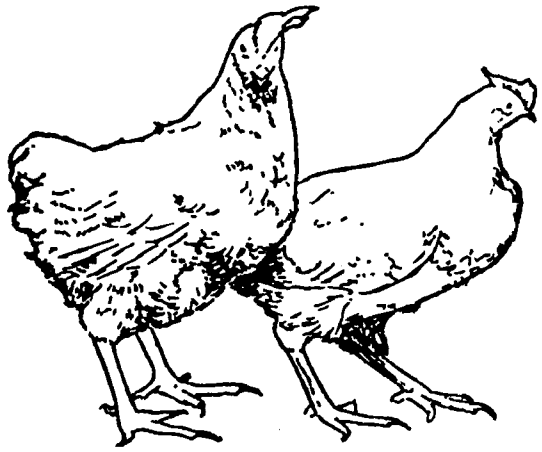
| Year | Layers | | | Pullets not of laying age | | Other Chickens | Total Chickens | | |
|---|---|---|---|---|---|---|---|---|---|
| | Layers 1 year old and older | Layers 20 weeks old but less than 1 year | Total | Pullets 13 weeks old & older but less than 20 weeks | Pullet Chicks and Pullets under 13 weeks of age | | Number | Value | |
| | | | | | | | | Average | Total |
| | 1,000 Head | | | | | | | Dollars | 1,000 Dollars |
| 1991 | 1,061 | 893 | 1,954 | 155 | 183 | 1 | 2,293 | 1.60 | 3,669 |
| 1992 | 1,030 | 928 | 1,958 | 147 | 220 | 1 | 2,326 | 1.70 | 3,954 |
| 1993 | 990 | 890 | 1,880 | 187 | 267 | 1 | 2,335 | 1.40 | 3,269 |
| 1994 | 1,200 | 800 | 2,000 | 195 | 179 | 1 | 2,375 | 1.50 | 3,563 |
| 1995 | 920 | 790 | 1,710 | 150 | 179 | 1 | 2,040 | 1.30 | 2,652 |
| 1996 | 895 | 839 | 1,734 | 141 | 168 | 1 | 2,044 | 1.50 | 3,066 |
| 1997 | 939 | 759 | 1,698 | 244 | 196 | 0 | 2,138 | 1.60 | 3,421 |
| 1998 | 1,000 | 830 | 1,830 | 268 | 98 | 0 | 2,196 | 1.60 | 3,514 |

1/ Excludes commercial broilers.

## Chickens: Lost, Sold, and Value of Sales, Utah, 1991-98 1/

| Year | Number Lost 2/ | Number Sold | Pounds Sold | Price per Pound | Value of Sales |
|---|---|---|---|---|---|
| | 1,000 Head | | 1,000 Pounds | Dollars | 1,000 Dollars |
| 1991 | 195 | 1,095 | 4,380 | 0.020 | 88 |
| 1992 | 153 | 1,200 | 4,800 | 0.020 | 96 |
| 1993 | 168 | 1,210 | 4,840 | 0.030 | 145 |
| 1994 | 265 | 1,625 | 6,500 | 0.030 | 195 |
| 1995 | 372 | 1,298 | 5,192 | 0.026 | 135 |
| 1996 | 327 | 1,014 | 4,056 | 0.030 | 122 |
| 1997 | 250 | 1,068 | 4,272 | 0.030 | 128 |
| 1998 | 164 | 1,021 | 4,084 | 0.030 | 123 |

1/ Estimates exclude broilers and cover the 12 month period December 1 previous year through November 30. 2/ Includes death and other losses during the 12 month period.



# Bees and Honey

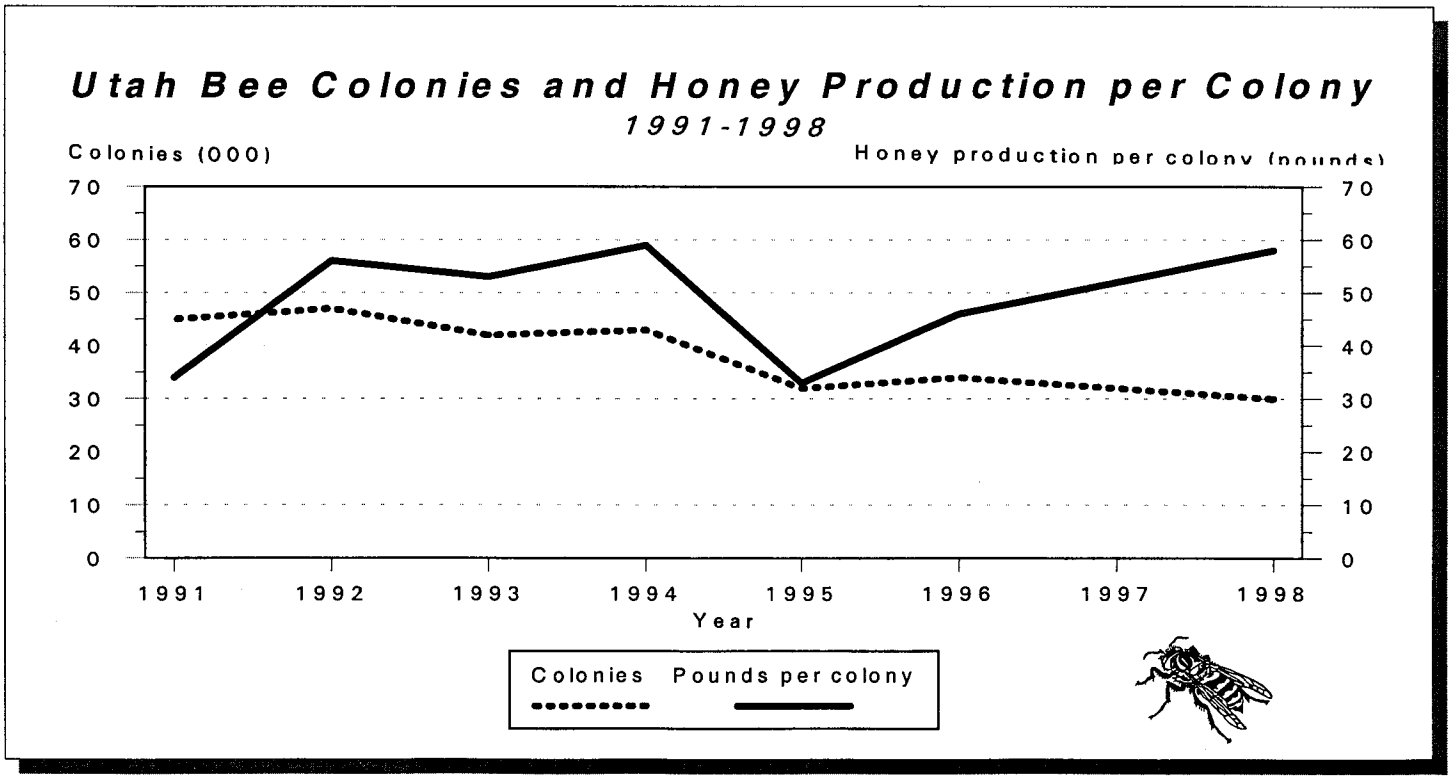
Honey production in Utah from producers with five or more colonies totaled 1.7 million pounds during 1998, up 4.6 percent from the 1997 level. The number of colonies at 30,000 was down 2,000 from the previous year. Production per colony, at 58 pounds, was 6 pounds above the level of 1997.

The price received per pound of honey averaged 65 cents, down 10 cents from 1997. The total value of the honey produced in 1998 was $1.1 million, a decrease of 9.4 percent from 1997.

Several Utah apiaries kept their bees in other States during part of the year. Honey produced in other States was counted in that states production and not included in the Utah production.

**Honey: Colonies of Bees, Production, & Value, Utah, 1991-98**

| Year | Honey Producing Colonies | Honey | | | |
|---|---|---|---|---|---|
| | | Production | | Value of Production | |
| | | Yield per Colony | Total | Average Price per Pound | Total |
| | 1,000 | Pounds | 1,000 Pounds | Cents | 1,000 Dollars |
| 1991 | 45 | 34 | 1,530 | 55 | 842 |
| 1992 | 47 | 56 | 2,632 | 58 | 1,527 |
| 1993 | 42 | 53 | 2,226 | 55 | 1,224 |
| 1994 | 43 | 59 | 2,537 | 53 | 1,345 |
| 1995 | 32 | 33 | 1,056 | 65 | 686 |
| 1996 | 34 | 46 | 1,564 | 85 | 1,329 |
| 1997 | 32 | 52 | 1,664 | 75 | 1,248 |
| 1998 | 30 | 58 | 1,740 | 65 | 1,131 |



# Mink

Mink pelt production in Utah during 1997 totaled 670,000 pelts, 15 percent above 1996. The number of females bred to produce kits in 1998 was 175,000, down 5 percent from the previous year. Utah ranked second in the nation in mink pelt production in 1997.

Standard was the most common type of pelt produced, accounting for 46 percent of all pelts taken. Mahogany and Demi-Buff accounted for 34 and 9 percent respectively. In 1997 there were 125 mink farms in Utah, 5 farms less than 1996.

Leading mink producing counties, Utah and Morgan, produced over 68 percent of all pelts taken. Other leading counties were Salt Lake, Cache, and Summit.

## Mink: Number of Ranches, Pelts Produced, Females Bred, Average Price & Value, Utah and United States, 1991-98

| Year | Utah | | | United States | | | | |
|---|---|---|---|---|---|---|---|---|
| | Ranches Producing Pelts | Pelts Produced | Females Bred | Ranches Producing Pelts | Pelts Produced | Females Bred | Average Pelt Price | Value of Pelts |
| | Number | 1,000 | | Number | 1,000 | | Dollars | Million Dollars |
| 1991 | 160 | 670 | 180 | 683 | 3,268 | 874 | 21.90 | 71.6 |
| 1992 | 150 | 651 | 175 | 571 | 2,900 | 782 | 23.80 | 69.0 |
| 1993 | 140 | 600 | 170 | 498 | 2,527 | 707 | 34.10 | 86.2 |
| 1994 | 130 | 530 | 165 | 458 | 2,525 | 713 | 33.00 | 83.3 |
| 1995 | 130 | 570 | 162 | 445 | 2,689 | 710 | 53.10 | 142.8 |
| 1996 | 130 | 585 | 167 | 415 | 2,659 | 678 | 35.30 | 93.9 |
| 1997 | 125 | 670 | 185 | 401 | 2,844 | 715 | 33.10 | 94.1 |
| 1998 | 1/ | 1/ | 175 | 1/ | 1/ | 705 | 1/ | 1/ |

1/ Data available July 22, 1999.

## Mink: Pelts Produced in 1997 and Females Bred for 1998, Utah and United States

| Type | Pelts Produced 1997 | | Females Bred To Produce Kits 1998 | |
|---|---|---|---|---|
| | Utah | United States | Utah | UnitedStates |
| | Number | | | |
| Standard | 311,000 | 1,198,700 | 80,200 | 285,900 |
| Ranch Wild | * | 186,300 | * | 41,600 |
| Demi-Buff 1/ | 60,000 | 122,300 | 19,100 | 36,100 |
| Pastel | * | 34,700 | * | 10,100 |
| Pale Brown | * | 1,000 | * | 200 |
| Sapphire | 30,000 | 127,500 | 11,700 | 40,200 |
| Gunmetal | 28,000 | 460,800 | 5,600 | 115,900 |
| Mahogany | 226,000 | 636,900 | 54,700 | 151,700 |
| Pearl | * | 13,300 | * | 4,000 |
| Lavender Hope | | 5,600 | | 1,800 |
| Pink | | 3,400 | | 800 |
| Violet Type | * | 9,500 | * | 3,100 |
| White | | 39,400 | | 10,500 |
| Miscellaneous | | 4,400 | | 3,300 |
| Total | 670,000 | 2,843,800 | 175,000 | 705,200 |

* Included in other states in each respective color class to avoid disclosing individual operatons. 1/ This color class includes Demi-Buff, Dark Brown, Violet, Pastel, Standard, Pearl crosses, and others.

# Trout

Utah trout sales from September 1, 1997 through August 31, 1998 totaled 1.5 million dollars, down 35 percent from the previous year. The number of operations with trout, at 17, was the same as September 1, 1998. Trout losses totaled 351,000 fish in 1998, up 41 percent from 1997. Predators accounted for 58 percent of the losses.

## Trout: Number of Operations, Total Sales, and Foodsize Sales, Utah, 1991-98

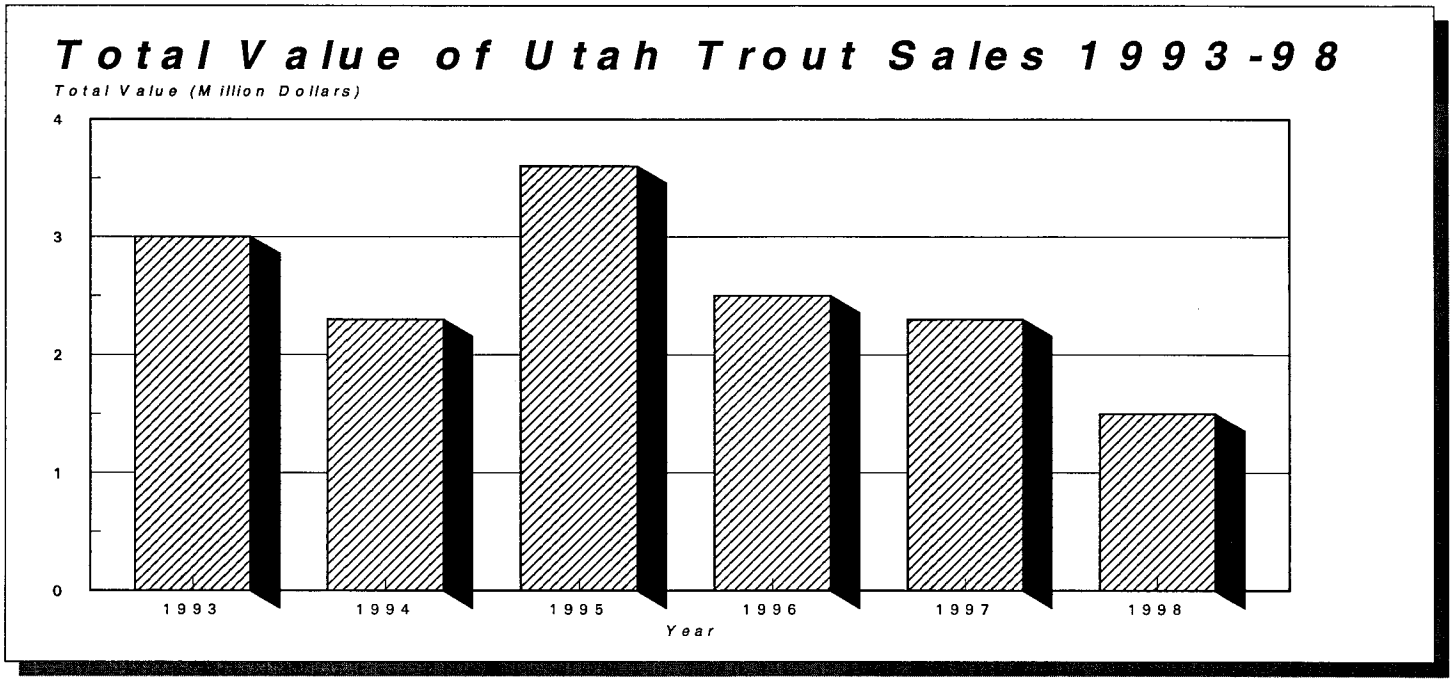
| Year | Number of Operations Sep 1 | Total Value of Sales Sep1-Aug 31 | Foodsize Trout Sales 1/ | | | |
|---|---|---|---|---|---|---|
| | | | Number Sold | Pounds Sold | Value of Sales | Average Value per Pound |
| | Number | 1,000 Dollars | ..... Thousand ..... | | 1,000 Dollars | Dollars |
| 1991 | 7 | 1,959 | 2/ | 2/ | 2/ | 2/ |
| 1992 | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ |
| 1993 | 9 | 2,980 | 1,680 | 1,869 | 2,739 | 1.47 |
| 1994 | 12 | 2,348 | 1,248 | 1,261 | 2,118 | 1.68 |
| 1995 | 18 | 3,596 | 1,586 | 1,792 | 3,230 | 1.80 |
| 1996 | 18 | 2,489 | 1,144 | 1,205 | 2,077 | 1.72 |
| 1997 | 17 | 2,325 | 556 | 871 | 1,816 | 2.08 |
| 1998 | 17 | 1,511 | 368 | 438 | 1,155 | 2.64 |

1/ Food size fish are defined as over 12 inches in length. 2/ Data not published to avoid disclosure of individual operations.

## Trout: Stocker Sales and Fingerling Sales, Utah, 1993-98 1/

| Year | Stocker Size Trout Sales 2/ | | | | Fingerling Size Trout Sales 3/ | | | |
|---|---|---|---|---|---|---|---|---|
| | Number Sold | Pounds Sold | Value of Sales | Average Value per Pound | Number Sold | Pounds Sold | Value of Sales | Average Value per Pound |
| | ..... 1,000 ..... | | 1,000 Dollars | Dollars | .....1,000 ..... | | 1,000 Dollars | Dollars |
| 1993 | 176 | 132 | 225 | 1.70 | 24 | 1 | 5 | 5.00 |
| 1994 | 233 | 135 | 227 | 1.68 | 20 | 1 | 3 | 3.00 |
| 1995 | 285 | 179 | 346 | 1.93 | 70 | 4 | 20 | 5.00 |
| 1996 | 336 | 231 | 402 | 1.74 | 31 | 2 | 10 | 5.00 |
| 1997 | 543 | 279 | 487 | 1.75 | 73 | 4 | 22 | 5.50 |
| 1998 | 401 | 197 | 334 | 1.70 | 109 | 5 | 22 | 4.40 |

1/ Years prior to 1993 not available. 2/ Stockers are 6-12 inches long. 3/ Fingerlings are 1-6 inches long.




## Trout: Loss by Cause, Utah, Sep 1-Aug 31; 1993-98

| Year | Total | | Disease | | | Theft | | | Chemicals | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Lost | Pounds Lost | Number Lost | Pounds Lost | % of Total | Number Lost | Pounds Lost | % of Total | Number Lost | Pounds Lost | % of Total |
| | 1,000 | | | | *Percent* | 1,000 | | *Percent* | 1,000 | | *Percent* |
| 1993 | 216 | 137 | 38 | 21 | *18* | 6 | 7 | *3* | 0 | 0 | *0* |
| 1994 | 384 | 119 | 56 | 17 | *15* | 20 | 35 | *5* | 0 | 0 | *0* |
| 1995 | 258 | 131 | 0 | 0 | *0* | 16 | 16 | *6* | 67 | 30 | *26* |
| 1996 | 336 | 143 | 20 | 1 | *6* | 12 | 11 | *3* | 0 | 0 | *0* |
| 1997 | 249 | 97 | 0 | 0 | *0* | 36 | 22 | *14* | 45 | 20 | *18* |
| 1998 | 351 | 105 | 32 | 3 | *9* | 3 | 2 | *1* | 50 | 50 | *14* |

## Trout: Loss by Cause, Utah, Sep 1-Aug 31; 1993-98 (continued)

| Year | Drought | | | Flood | | | Predators | | | Other | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number Lost | Pounds Lost | % of Total | Number Lost | Pounds Lost | % of Total | Number Lost | Pounds Lost | % of Total | Number Lost | Pounds Lost | % of Total |
| | 1,000 | | *Percent* | 1,000 | | *Percent* | 1,000 | | *Percent* | 1,000 | | *Percent* |
| 1993 | 63 | 33 | *29* | 15 | 9 | *7* | 84 | 59 | *39* | 10 | 8 | *5* |
| 1994 | 0 | 0 | *0* | 1 | 1 | *0* | 306 | 64 | *80* | 1 | 2 | *0* |
| 1995 | 9 | 6 | *3* | 5 | 2 | *2* | 109 | 31 | *42* | 52 | 46 | *20* |
| 1996 | 0 | 0 | *0* | 0 | 0 | *0* | 251 | 109 | *75* | 53 | 22 | *16* |
| 1997 | 0 | 0 | *0* | 8 | 3 | *3* | 133 | 43 | *53* | 27 | 9 | *11* |
| 1998 | 1 | 1 | | 1 | 1 | | 204 | 47 | *58* | 60 | 1 | *17* |

# Farm Labor

The Utah Agricultural Statistics Service conducts quarterly agricultural labor surveys in January, April, July, and October. Data concerning hired labor, hours worked, and wage rates for the week (Sunday through Saturday) containing the 12th of the month are combined with Colorado and Nevada to form the Mountain II region.

The number of hired farm workers in the Mountain II region during the July 1998 through April 1999 quarterly survey periods peaked in July 1998 at 30,000 workers, followed by October 1998 with 23,000 workers and April 1999 with 18,000 workers. A low of 15,000 workers was reported in January 1999.
October 1998 was the busiest quarter with hired workers averaging 47.0 hours for the week followed by January 1999 with 42.7 hours and July 1998 with 41.4 hours. April 1999 was the low with the hired labor working 41.3 hours for the week.

The average wage rates were generally higher during the January 1999 survey period where the average rate for all hired workers was $8.41 per hour. Field workers received their highest wage rates in April 1999 at $7.58 per hour and their lowest at $6.13 in July 1998. Livestock workers received their highest wages in April 1999 at $7.67 per hour and their lowest in July 1998 at $7.08 per hour.

**Hired Farm Labor: Mountain II Region, July 1998, October 1998, January 1999, and April 1999** 1/ 2/

| | July 12-18, 1998 | October 11-17, 1998 | January 10-16, 1999 | April 11-17, 1999 |
|---|---|---|---|---|
| ***1,000 Employees*** | | | | |
| Hired workers expected to be employed | 30 | 23 | 15 | 18 |
| 150 days or more | 20 | 19 | 14 | 15 |
| 149 days or less | 10 | 4 | 1 | 3 |
| ***Dollars per hour*** | | | | |
| Wage rates for all hired workers 2/ | 6.95 | 7.32 | 8.41 | 8.08 |
| Type of worker | | | | |
| Field | 6.13 | 6.37 | 7.29 | 7.58 |
| Livestock | 7.08 | 7.33 | 7.36 | 7.67 |
| Field & Livestock combined | 6.39 | 6.82 | 7.33 | 7.63 |
| ***Hours per week*** | | | | |
| Hours worked by hired workers | 41.4 | 47.0 | 42.7 | 41.3 |

1/ Mountain II Region includes Colorado, Nevada, and Utah. 2/ Excludes Agricultural Service workers.

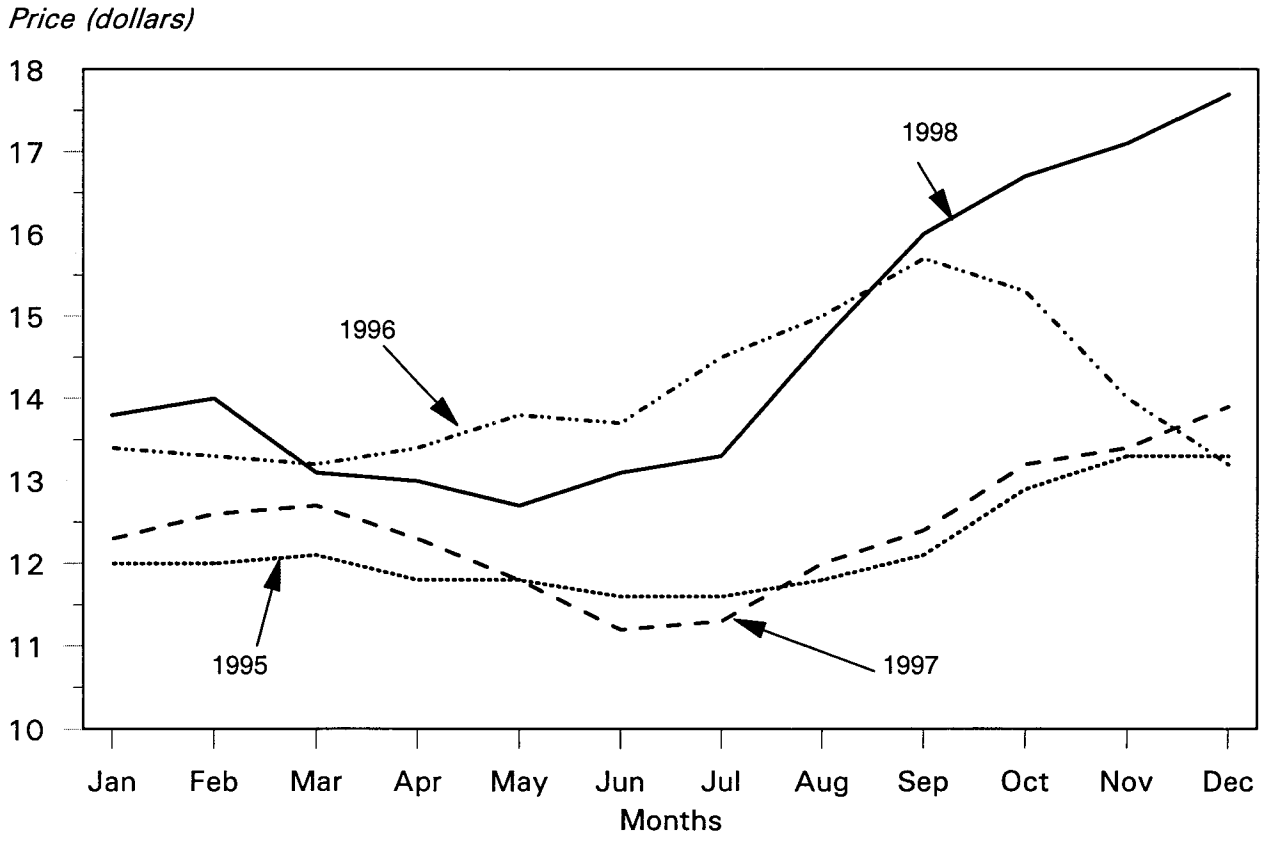
# Agricultural Prices - Monthly & Quarterly

Monthly average prices received by farmers for barley, alfalfa hay, all hay, sheep, lambs, and fluid grade, manufacturing grade, and all milk are available for Utah. They are included in the tables that follow. Quarterly prices received for milk cows are also included. Prices received by farmers for other crops and livestock are available only on a calendar or marketing year average and can be found with the individual commodity tables within this publication.

This year we have created a combined average cattle prices for the Cedar City, Salina, Spanish Fork, and Weber Livestock Auctions by month by various classes and weight groups. These are straight averages of the weekly market reports compiled by the Utah Department of Agriculture and Food's Market News reports. The prices are not weighted by the volume handled by each of the auctions, but should provide a good representation of auction prices in the state. We have data for 1994-1998. Let us know if you find this data useful. Remember, you can access the weekly auction data for Utah and other market reports on the Internet at the Utah Department of Agriculture and Food's home page at http://www.ag.state.ut.us and then select "market reports".

## Fluid Grade Milk

### Utah, 1995-98



## Average Prices Received: by Farmers, Utah, 1991-98

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mktg Year Avg 1/ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Barley (Dollars per Bushel)*** | | | | | | | | | | | | | |
| 1991 | 2.46 | 2.54 | 2.47 | 2.46 | 2.50 | 2.50 | 2.14 | 2.11 | 2.16 | 2.19 | 2.33 | 2.35 | 2.25 |
| 1992 | 2.40 | 2.39 | 2.39 | 2.42 | 2.49 | 2.48 | 2.23 | 2.18 | 2.19 | 2.24 | 2.21 | 2.26 | 2.23 |
| 1993 | 2.26 | 2.25 | 2.32 | 2.27 | 2.26 | 2.30 | 2.20 | 2.11 | 2.10 | 2.09 | 2.23 | 2.35 | 2.22 |
| 1994 | 2.43 | 2.40 | 2.47 | 2.38 | 2.35 | 2.40 | 2.32 | 2.17 | 2.22 | 2.22 | 2.22 | 2.35 | 2.32 |
| 1995 | 2.34 | 2.37 | 2.41 | 2.39 | 2.54 | 2.76 | 2.65 | 2.60 | 2.74 | 2.92 | 3.21 | 3.22 | 3.08 |
| 1996 | 3.26 | 3.32 | 3.49 | 3.37 | 3.84 | 3.73 | 3.25 | 2.98 | 3.08 | 3.05 | 2.96 | 2.60 | 2.93 |
| 1997 | 2.63 | 2.59 | 2.69 | 2.74 | 2.74 | 2.57 | 2.36 | 2.25 | 2.26 | 2.33 | 2.38 | 2.38 | 2.29 |
| 1998 | 2.34 | 2.34 | 2.29 | 2.37 | 2.15 | 2.14 | 1.96 | 1.86 | 1.76 | 1.73 | 1.79 | 1.83 | 2/ 1.70 |
| ***Alfalfa & Alfalfa Hay Mixtures, Baled (Dollars per Ton)*** | | | | | | | | | | | | | |
| 1991 | 84.00 | 74.00 | 69.00 | 69.00 | 66.00 | 64.00 | 61.00 | 59.00 | 59.00 | 55.00 | 52.00 | 53.00 | 57.00 |
| 1992 | 55.00 | 53.00 | 54.00 | 54.00 | 55.00 | 61.00 | 64.00 | 64.00 | 62.00 | 61.00 | 61.00 | 61.00 | 62.00 |
| 1993 | 60.00 | 61.00 | 66.00 | 67.00 | 70.00 | 71.00 | 62.00 | 63.00 | 62.00 | 63.00 | 65.00 | 68.00 | 65.50 |
| 1994 | 70.00 | 65.00 | 67.00 | 67.00 | 67.00 | 77.00 | 77.00 | 78.00 | 81.00 | 76.00 | 83.00 | 87.00 | 80.00 |
| 1995 | 83.00 | 85.00 | 83.00 | 80.00 | 75.00 | 75.00 | 74.00 | 69.00 | 67.00 | 61.00 | 63.00 | 63.00 | 66.00 |
| 1996 | 61.00 | 59.00 | 60.00 | 57.00 | 59.00 | 57.00 | 73.00 | 74.00 | 68.00 | 67.00 | 73.00 | 78.00 | 72.50 |
| 1997 | 83.00 | 83.00 | 84.00 | 83.00 | 88.00 | 85.00 | 89.00 | 84.00 | 84.00 | 85.00 | 86.00 | 85.00 | 85.00 |
| 1998 | 84.00 | 80.00 | 81.00 | 78.00 | 77.00 | 76.00 | 81.00 | 81.00 | 80.00 | 78.00 | 79.00 | 75.00 | 2/ 79.00 |
| ***All Hay, Baled (Dollars per Ton)*** | | | | | | | | | | | | | |
| 1991 | 82.00 | 72.00 | 67.00 | 67.00 | 65.00 | 63.00 | 60.00 | 58.00 | 58.00 | 54.00 | 51.00 | 52.00 | 56.00 |
| 1992 | 54.00 | 52.00 | 53.00 | 53.00 | 54.00 | 60.00 | 62.00 | 62.00 | 60.00 | 60.00 | 60.00 | 60.00 | 61.00 |
| 1993 | 59.00 | 60.00 | 65.00 | 65.00 | 70.00 | 71.00 | 62.00 | 62.00 | 62.00 | 63.00 | 65.00 | 67.00 | 65.00 |
| 1994 | 69.00 | 64.00 | 66.00 | 67.00 | 67.00 | 77.00 | 77.00 | 77.00 | 80.00 | 76.00 | 82.00 | 86.00 | 79.50 |
| 1995 | 82.00 | 84.00 | 83.00 | 80.00 | 75.00 | 75.00 | 74.00 | 68.00 | 67.00 | 61.00 | 63.00 | 62.00 | 66.00 |
| 1996 | 60.00 | 58.00 | 59.00 | 57.00 | 59.00 | 57.00 | 72.00 | 72.00 | 68.00 | 67.00 | 72.00 | 77.00 | 72.00 |
| 1997 | 82.00 | 82.00 | 83.00 | 83.00 | 88.00 | 85.00 | 88.00 | 83.00 | 84.00 | 85.00 | 86.00 | 85.00 | 84.00 |
| 1998 | 83.00 | 79.00 | 80.00 | 78.00 | 77.00 | 76.00 | 81.00 | 80.00 | 79.00 | 77.00 | 77.00 | 74.00 | 2/ 78.00 |
| ***Sheep (Dollars per Cwt)*** | | | | | | | | | | | | | |
| 1991 | 21.70 | 19.30 | 21.40 | 22.80 | 16.90 | 17.30 | 22.60 | 20.50 | 22.80 | 19.30 | 21.60 | 23.10 | 20.40 |
| 1992 | 27.80 | 29.80 | 32.60 | 31.30 | 20.20 | 19.20 | 23.60 | 27.10 | 21.60 | 19.60 | 18.60 | 26.20 | 24.30 |
| 1993 | 25.60 | 25.00 | 22.00 | 19.00 | 20.00 | 21.00 | 23.00 | 23.00 | 21.00 | 18.00 | 21.50 | 24.50 | 21.50 |
| 1994 | 24.00 | 28.00 | 26.00 | 23.00 | 20.00 | 26.00 | 26.00 | 24.00 | 24.00 | 19.00 | 25.00 | 29.00 | 23.60 |
| 1995 | 23.00 | 28.00 | 24.00 | 22.00 | 19.00 | 21.00 | 24.00 | 22.00 | 21.00 | 17.00 | 19.00 | 22.00 | 21.00 |
| 1996 | 28.00 | 26.00 | 28.00 | 22.00 | 19.00 | 20.00 | 26.00 | 24.00 | 25.00 | 22.00 | 26.00 | 29.000 | 23.90 |
| 1997 | 35.00 | 35.00 | 34.00 | 34.00 | 30.00 | 33.00 | 37.00 | 33.00 | 29.00 | 30.00 | 35.00 | 36.00 | 32.70 |
| 1998 | 40.00 | 37.00 | 37.00 | 37.00 | 35.00 | 29.00 | 26.00 | 26.00 | 20.000 | 20.00 | 21.00 | 25.00 | 27.00 |
| ***Lambs (Dollars per Cwt)*** | | | | | | | | | | | | | |
| 1991 | 41.20 | 39.80 | 40.90 | 42.30 | 45.10 | 45.50 | 48.00 | 45.60 | 42.40 | 42.70 | 40.30 | 43.80 | 43.20 |
| 1992 | 49.70 | 49.60 | 56.60 | 60.30 | 50.80 | 54.40 | 53.30 | 44.90 | 51.00 | 54.00 | 49.40 | 53.70 | 51.80 |
| 1993 | 59.60 | 66.00 | 63.00 | 56.00 | 55.00 | 50.00 | 50.00 | 59.00 | 62.00 | 59.00 | 60.50 | 60.00 | 60.40 |
| 1994 | 55.00 | 59.00 | 56.00 | 56.00 | 52.00 | 59.00 | 66.00 | 66.00 | 65.00 | 64.00 | 66.00 | 67.00 | 64.10 |
| 1995 | 65.00 | 73.000 | 75.00 | 75.00 | 80.00 | 83.00 | 81.00 | 83.00 | 80.00 | 71.00 | 73.00 | 73.00 | 77.00 |
| 1996 | 75.00 | 83.008 | 84.00 | 93.00 | 91.00 | 104.00 | 90.00 | 86.00 | 88.00 | 82.00 | 83.00 | 89.00 | 85.90 |
| 1997 | 95.00 | 95.00 | 103.00 | 100.00 | 96.00 | 88.00 | 83.00 | 92.00 | 86.00 | 86.00 | 81.00 | 83.00 | 87.20 |
| 1998 | 77.00 | 76.00 | 71.00 | 70.00 | 70.00 | 82.00 | 78.00 | 78.00 | 68.00 | 62.00 | 59.00 | 65.00 | 67.80 |

1/ Marketing year, barley, July 1 to June 30; hay, May 1 to April 30; sheep and lamb, January 1 to Dec 31. 2/ Preliminary, final market year average will be published two months after the end of the marketing year.

## Average Prices Received: by Farmers, Utah, 1991-98

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mktg Year Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Milk, All (Dollars per Cwt)*** | | | | | | | | | | | | | |
| 1991 | 11.00 | 10.80 | 10.60 | 10.40 | 10.50 | 10.60 | 11.10 | 11.60 | 12.20 | 12.70 | 13.10 | 13.00 | 11.50 |
| 1992 | 12.60 | 12.10 | 11.70 | 11.70 | 11.80 | 12.30 | 12.50 | 12.60 | 12.90 | 12.60 | 12.40 | 11.90 | 12.30 |
| 1993 | 11.70 | 11.50 | 11.30 | 11.80 | 12.10 | 12.30 | 12.10 | 11.80 | 12.10 | 12.50 | 13.20 | 13.10 | 12.10 |
| 1994 | 13.20 | 13.00 | 13.00 | 13.10 | 12.20 | 12.00 | 11.50 | 11.80 | 12.30 | 12.50 | 12.60 | 12.20 | 12.40 |
| 1995 | 12.00 | 12.00 | 12.00 | 11.70 | 11.70 | 11.50 | 11.50 | 11.70 | 12.00 | 12.80 | 13.30 | 13.30 | 12.10 |
| 1996 | 13.30 | 13.30 | 13.10 | 13.30 | 13.70 | 13.60 | 14.40 | 14.90 | 15.60 | 15.20 | 14.00 | 13.00 | 14.00 |
| 1997 | 12.20 | 12.60 | 12.60 | 12.20 | 11.60 | 11.10 | 11.20 | 11.90 | 12.40 | 13.10 | 13.40 | 13.90 | 12.30 |
| 1998 | 13.80 | 14.00 | 13.10 | 12.90 | 12.50 | 13.10 | 13.30 | 14.60 | 15.90 | 16.70 | 17.10 | 17.60 | 14.60 |
| ***Milk, Eligible for Fluid Market (Dollars per Cwt)*** 1/ | | | | | | | | | | | | | |
| 1991 | 11.20 | 11.00 | 10.70 | 10.50 | 10.60 | 10.70 | 11.20 | 11.70 | 12.30 | 12.80 | 13.20 | 13.20 | 11.60 |
| 1992 | 12.90 | 12.30 | 11.90 | 11.80 | 12.00 | 12.40 | 12.60 | 12.90 | 13.10 | 12.80 | 12.50 | 12.10 | 12.40 |
| 1993 | 11.80 | 11.60 | 11.40 | 11.90 | 12.20 | 12.40 | 12.20 | 11.90 | 12.20 | 12.60 | 13.30 | 13.10 | 12.20 |
| 1994 | 13.20 | 13.10 | 13.10 | 13.20 | 12.40 | 12.20 | 11.60 | 12.00 | 12.30 | 12.60 | 12.60 | 12.20 | 12.50 |
| 1995 | 12.00 | 12.00 | 12.10 | 11.80 | 11.80 | 11.60 | 11.60 | 11.80 | 12.10 | 12.90 | 13.30 | 13.30 | 12.20 |
| 1996 | 13.40 | 13.30 | 13.20 | 13.40 | 13.80 | 13.70 | 14.50 | 15.00 | 15.70 | 15.30 | 14.00 | 13.20 | 14.10 |
| 1997 | 12.30 | 12.60 | 12.70 | 12.30 | 11.80 | 11.20 | 11.30 | 12.00 | 12.40 | 13.20 | 13.40 | 13.90 | 12.40 |
| 1998 | 13.80 | 14.00 | 13.10 | 13.00 | 12.70 | 13.10 | 13.30 | 14.70 | 16.00 | 16.70 | 17.10 | 17.70 | 14.60 |
| ***Milk, Manufacturing Grade (Dollars per Cwt)*** | | | | | | | | | | | | | |
| 1991 | 10.00 | 9.75 | 9.70 | 9.55 | 9.75 | 9.85 | 10.60 | 11.10 | 11.60 | 12.10 | 12.40 | 11.90 | 10.70 |
| 1992 | 11.00 | 10.60 | 10.60 | 10.90 | 11.20 | 11.70 | 11.70 | 11.50 | 11.70 | 11.60 | 11.60 | 11.10 | 11.30 |
| 1993 | 11.00 | 10.80 | 10.90 | 11.70 | 11.90 | 11.70 | 11.00 | 10.90 | 11.60 | 12.00 | 12.80 | 12.70 | 11.50 |
| 1994 | 12.30 | 12.30 | 12.30 | 12.20 | 11.20 | 10.30 | 10.50 | 10.80 | 11.80 | 12.10 | 12.20 | 11.90 | 11.70 |
| 1995 | 11.80 | 11.70 | 11.50 | 11.00 | 10.80 | 10.80 | 10.80 | 11.20 | 11.70 | 12.40 | 13.20 | 13.10 | 11.60 |
| 1996 | 12.90 | 12.90 | 12.50 | 12.90 | 13.00 | 13.10 | 13.60 | 14.30 | 15.20 | 14.70 | 13.20 | 11.80 | 13.30 |
| 1997 | 11.80 | 12.20 | 12.10 | 11.40 | 10.50. | 10.30 | 10.50 | 11.40 | 12.10 | 12.70 | 13.10 | 13.50 | 11.70 |
| 1998 | 13.00 | 13.20 | 12.40 | 11.80 | 10.90 | 12.40 | 13.80 | 14.60 | 15.20 | 16.50 | 17.10 | 17.30 | 14.00 |

1/ Includes surplus diverted to manufacturing.

## Average Prices Received: by Farmers, Milk Cows, Utah, 1991-98

| Year | Jan | Apr | Jul | Oct | Marketing Year Average |
|---|---|---|---|---|---|
| | | | Dollars per Head | | |
| 1991 | 1,040 | 1,090 | 1,100 | 1,070 | 1,080 |
| 1992 | 1,070 | 1,190 | 1,200 | 1,140 | 1,150 |
| 1993 | 1,100 | 1,130 | 1,180 | 1,180 | 1,150 |
| 1994 | 1,100 | 1,170 | 1,220 | 1,170 | 1,170 |
| 1995 | 1,100 | 1,130 | 1,130 | 1,070 | 1,110 |
| 1996 | 1,000 | 1,040 | 1,080 | 1,170 | 1,070 |
| 1997 | 1,090 | 1,110 | 1,120 | 1,150 | 1,120 |
| 1998 | 1,050 | 1,100 | 1,140 | 1,160 | 1,110 |

## Utah Livestock Auction Data 1994-98 1/

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Dollars per Cwt | | | | | | | |
| ***Feeder Heifers medium and large 1-2*** | | | | | | | | | | | | | |
| **300-400 lbs** | | | | | | | | | | | | | |
| 1994 | 93.03 | 94.57 | 97.03 | 90.08 | 87.45 | 85.20 | 86.60 | 83.12 | 79.59 | 74.78 | 74.11 | 72.23 | 84.82 |
| 1995 | 75.16 | 77.46 | 73.55 | 70.00 | 69.73 | 71.33 | 67.14 | 68.48 | 65.72 | 58.86 | 55.91 | 57.39 | 67.56 |
| 1996 | 56.09 | 55.50 | 53.73 | 52.27 | 49.81 | 51.51 | 53.31 | 57.48 | 55.40 | 50.37 | 51.50 | 50.39 | 53.11 |
| 1997 | 58.50 | 66.39 | 71.27 | 73.09 | 73.72 | 79.75 | 81.14 | 83.15 | 79.75 | 75.67 | 78.03 | 76.69 | 74.76 |
| 1998 | 76.18 | 80.85 | 83.74 | 80.02 | 81.16 | 80.54 | 76.68 | 71.78 | 71.26 | 67.46 | 73.22 | 71.68 | 76.22 |
| **400-500 lbs** | | | | | | | | | | | | | |
| 1994 | 87.35 | 87.07 | 89.84 | 86.50 | 80.59 | 79.61 | 77.85 | 78.21 | 73.50 | 71.09 | 70.06 | 69.81 | 79.29 |
| 1995 | 72.28 | 73.78 | 69.93 | 67.25 | 66.22 | 69.30 | 63.27 | 62.82 | 60.74 | 56.69 | 54.58 | 56.10 | 64.41 |
| 1996 | 54.16 | 53.95 | 51.86 | 49.54 | 47.87 | 51.61 | 51.23 | 53.65 | 53.93 | 50.75 | 51.62 | 50.72 | 51.74 |
| 1997 | 58.12 | 67.06 | 71.00 | 71.55 | 75.43 | 77.44 | 78.14 | 78.29 | 78.21 | 74.02 | 74.01 | 72.39 | 72.97 |
| 1998 | 77.45 | 79.76 | 81.62 | 78.98 | 79.01 | 75.73 | 73.36 | 64.03 | 66.16 | 65.41 | 69.23 | 66.85 | 73.13 |
| **500-600 lbs** | | | | | | | | | | | | | |
| 1994 | 82.61 | 82.00 | 83.90 | 82.29 | 76.28 | 73.53 | 73.36 | 74.34 | 70.58 | 68.15 | 67.87 | 66.60 | 75.13 |
| 1995 | 69.70 | 69.50 | 65.88 | 64.56 | 63.86 | 65.30 | 61.29 | 59.22 | 58.71 | 54.62 | 54.28 | 55.16 | 61.84 |
| 1996 | 52.80 | 52.77 | 50.43 | 47.18 | 46.77 | 50.41 | 50.98 | 54.31 | 54.21 | 50.50 | 50.85 | 50.78 | 51.00 |
| 1997 | 58.63 | 64.03 | 66.49 | 69.74 | 72.39 | 74.12 | 75.38 | 72.45 | 73.08 | 71.91 | 69.91 | 71.56 | 69.97 |
| 1998 | 74.72 | 76.73 | 77.02 | 76.48 | 77.32 | 73.43 | 67.79 | 61.68 | 61.50 | 62.44 | 66.64 | 65.15 | 70.08 |
| **600-700 lbs** | | | | | | | | | | | | | |
| 1994 | 79.38 | 78.31 | 78.02 | 76.64 | 72.88 | 71.51 | 69.86 | 70.35 | 65.87 | 64.91 | 66.40 | 65.23 | 71.61 |
| 1995 | 67.57 | 66.82 | 62.83 | 60.82 | 60.48 | 62.72 | 57.38 | 56.66 | 57.21 | 54.72 | 53.76 | 54.64 | 59.63 |
| 1996 | 51.05 | 50.75 | 49.14 | 45.74 | 45.54 | 49.26 | 50.89 | 54.63 | 53.55 | 51.22 | 50.49 | 50.13 | 50.20 |
| 1997 | 56.96 | 62.39 | 63.74 | 65.44 | 68.31 | 70.61 | 70.14 | 71.30 | 71.62 | 69.41 | 67.79 | 68.55 | 67.19 |
| 1998 | 69.97 | 71.35 | 70.64 | 72.19 | 71.80 | 69.38 | 65.36 | 60.66 | 57.62 | 59.51 | 62.63 | 61.64 | 66.06 |
| ***Feeder Holstein Steers*** | | | | | | | | | | | | | |
| **300-500 lbs** | | | | | | | | | | | | | |
| 1994 | 75.75 | 81.44 | 78.38 | 76.42 | 71.21 | 72.18 | 69.00 | 68.05 | 62.78 | 57.67 | 63.98 | 55.09 | 69.33 |
| 1995 | 56.63 | 60.67 | 59.29 | 54.81 | 54.09 | 55.50 | 54.67 | 56.77 | 45.53 | 41.10 | 38.88 | 39.54 | 51.46 |
| 1996 | 41.34 | 38.84 | 38.39 | 36.17 | 38.50 | 36.50 | 39.07 | 44.34 | 34.06 | 31.21 | 30.54 | 37.00 | 37.16 |
| 1997 | 36.19 | 52.58 | 54.80 | 54.34 | 60.02 | 59.59 | 58.84 | 62.43 | 62.12 | 59.03 | 56.91 | 56.54 | 56.12 |
| 1998 | 55.34 | 63.09 | 61.82 | 66.86 | 69.06 | 71.44 | 62.23 | 53.57 | 50.25 | 50.74 | 53.00 | 45.79 | 58.60 |
| **500-700 lbs** | | | | | | | | | | | | | |
| 1994 | 67.29 | 68.93 | 67.23 | 68.71 | 64.95 | 63.03 | 60.96 | 59.52 | 55.23 | 54.48 | 53.91 | 51.52 | 61.47 |
| 1995 | 54.19 | 56.50 | 52.97 | 51.35 | 50.33 | 52.43 | 49.71 | 47.64 | 44.73 | 41.78 | 40.49 | 42.46 | 48.72 |
| 1996 | 39.64 | 39.34 | 36.88 | 36.11 | 35.47 | 36.15 | 36.93 | 37.71 | 35.92 | 33.42 | 34.41 | 37.47 | 36.62 |
| 1997 | 35.56 | 47.13 | 51.72 | 52.86 | 56.62 | 57.86 | 56.74 | 59.93 | 59.18 | 59.86 | 55.82 | 56.61 | 54.16 |
| 1998 | 54.74 | 57.14 | 58.21 | 62.36 | 64.85 | 61.69 | 61.76 | 52.63 | 44.46 | 46.82 | 46.03 | 45.44 | 54.68 |
| **700-900 lbs** | | | | | | | | | | | | | |
| 1994 | 63.39 | 62.34 | 64.86 | 61.75 | 55.52 | 55.69 | 54.04 | 56.27 | 53.74 | 53.10 | 52.12 | 51.28 | 57.01 |
| 1995 | 54.25 | 54.98 | 52.50 | 49.36 | 47.26 | 48.91 | 50.75 | 46.37 | 44.28 | 41.46 | 41.21 | 41.19 | 47.71 |
| 1996 | 41.61 | 38.68 | 38.70 | 37.12 | 36.03 | 35.21 | 38.59 | 40.76 | 39.96 | 37.67 | 38.73 | 39.46 | 38.54 |
| 1997 | 41.84 | 44.77 | 50.40 | 52.15 | 54.38 | 55.54 | 56.90 | 58.78 | 57.63 | 58.29 | 55.81 | 55.40 | 53.49 |
| 1998 | 54.80 | 56.33 | 55.44 | 59.67 | 59.68 | 52.92 | 50.93 | 47.97 | 45.98 | 45.59 | 42.68 | 42.01 | 51.17 |

1/ Monthly and annual averages not weighted by marketings

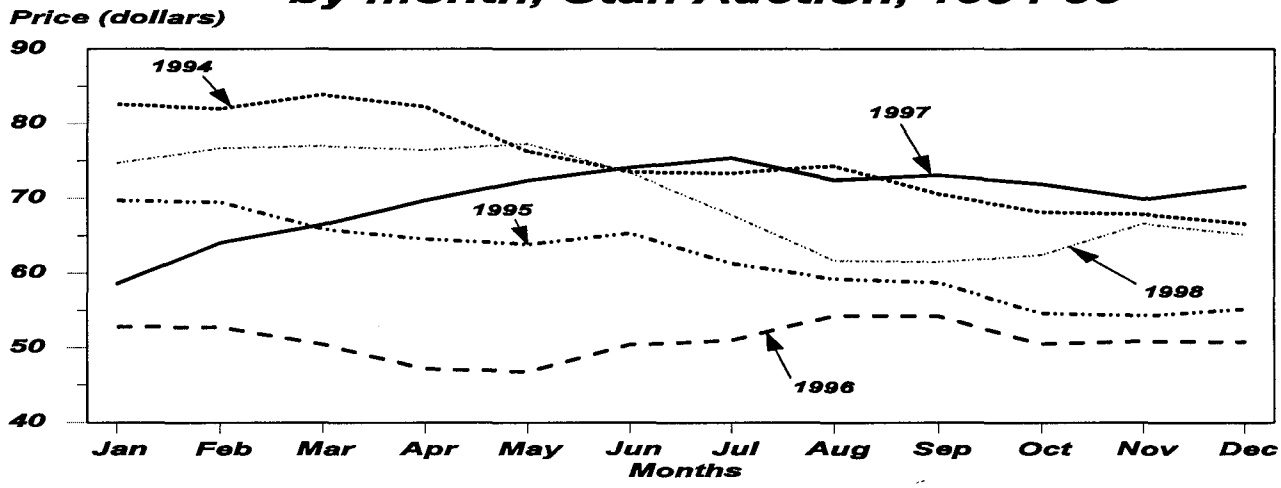
Source: Utah Department of Agriculture and Food, Market News weekly reports for the Cedar City, Salina, Spanish Fork, and Weber livestock auctions.

## Utah Livestock Auction Data 1994-98 1/ (continued)

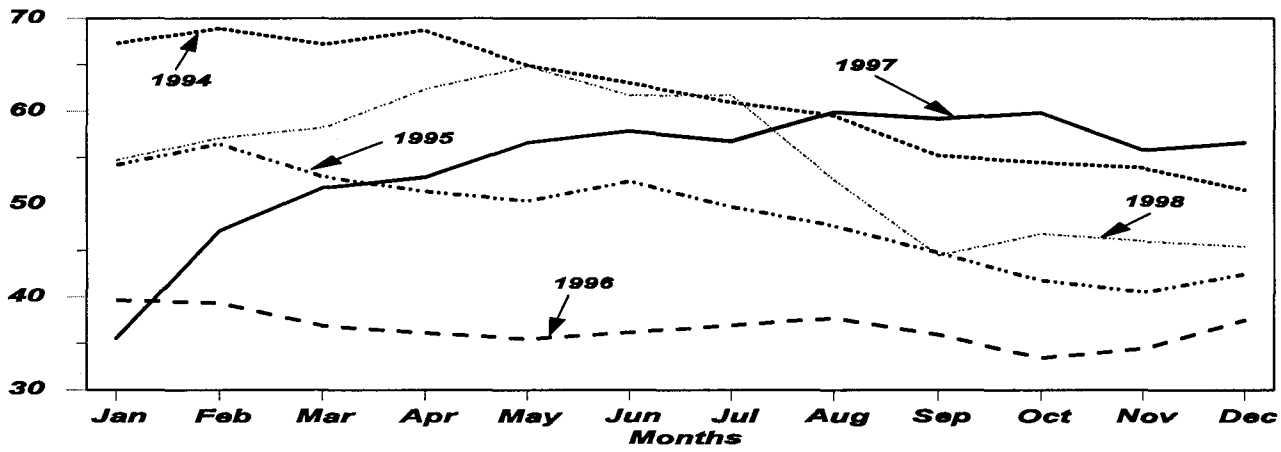
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Dollars per Cwt | | | | | | |
| ***Cows Boning Utility*** | | | | | | | | | | | | | |
| 1994 | 44.24 | 45.92 | 46.56 | 46.18 | 43.82 | 42.55 | 41.54 | 41.87 | 38.69 | 35.53 | 33.64 | 33.95 | 41.21 |
| 1995 | 37.56 | 39.63 | 38.38 | 34.89 | 34.29 | 36.24 | 35.55 | 34.08 | 32.83 | 31.21 | 29.23 | 29.84 | 34.48 |
| 1996 | 31.11 | 33.92 | 31.84 | 28.30 | 29.78 | 29.18 | 30.04 | 30.94 | 29.72 | 29.38 | 25.91 | 28.59 | 29.89 |
| 1997 | 28.76 | 32.44 | 37.79 | 38.19 | 37.46 | 35.82 | 36.87 | 35.56 | 33.25 | 30.63 | 28.91 | 30.38 | 33.84 |
| 1998 | 32.02 | 34.19 | 33.73 | 34.05 | 34.47 | 33.34 | 33.12 | 31.72 | 31.89 | 28.42 | 28.21 | 29.94 | 32.09 |
| ***Feeder Steers Medium and Large 1-2*** | | | | | | | | | | | | | |
| **300-400 lbs** | | | | | | | | | | | | | |
| 1994 | 106.11 | 107.42 | 110.46 | 105.35 | 95.59 | 96.56 | 91.42 | 91.32 | 84.67 | 82.73 | 85.44 | 79.81 | 94.74 |
| 1995 | 84.80 | 88.11 | 84.56 | 78.65 | 75.68 | 81.44 | 75.89 | 74.78 | 68.27 | 67.39 | 68.54 | 68.32 | 76.37 |
| 1996 | 63.65 | 63.72 | 65.34 | 61.29 | 57.76 | 58.82 | 60.61 | 64.25 | 62.78 | 59.64 | 62.38 | 62.81 | 61.92 |
| 1997 | 65.72 | 74.77 | 80.02 | 81.59 | 84.68 | 84.43 | 90.17 | 94.67 | 91.45 | 86.55 | 88.98 | 86.90 | 84.16 |
| 1998 | 86.37 | 89.34 | 91.41 | 90.38 | 92.89 | 91.93 | 83.10 | 78.33 | 80.00 | 77.96 | 83.32 | 83.66 | 85.72 |
| **400-500 lbs** | | | | | | | | | | | | | |
| 1994 | 98.36 | 98.54 | 101.39 | 96.28 | 91.54 | 88.44 | 84.03 | 84.85 | 81.46 | 78.86 | 79.80 | 77.37 | 88.41 |
| 1995 | 80.52 | 83.46 | 80.90 | 75.26 | 74.31 | 76.24 | 72.17 | 68.44 | 65.95 | 63.97 | 65.10 | 64.99 | 72.61 |
| 1996 | 61.17 | 62.77 | 63.85 | 61.47 | 58.84 | 56.48 | 57.53 | 59.99 | 62.18 | 59.04 | 60.41 | 61.45 | 60.43 |
| 1997 | 65.05 | 75.63 | 79.84 | 83.12 | 83.23 | 85.57 | 84.47 | 87.81 | 85.71 | 83.26 | 84.98 | 82.90 | 81.80 |
| 1998 | 85.48 | 87.97 | 90.71 | 89.45 | 89.63 | 85.45 | 80.86 | 78.80 | 76.43 | 74.02 | 79.35 | 77.36 | 82.96 |
| **500-600 lbs** | | | | | | | | | | | | | |
| 1994 | 89.63 | 92.66 | 91.96 | 91.61 | 86.64 | 82.60 | 79.03 | 79.30 | 76.45 | 73.13 | 74.09 | 73.12 | 82.52 |
| 1995 | 75.64 | 77.36 | 75.57 | 72.86 | 71.09 | 72.65 | 68.36 | 63.97 | 62.89 | 61.02 | 62.56 | 62.88 | 68.90 |
| 1996 | 59.63 | 62.00 | 60.65 | 58.31 | 56.18 | 56.18 | 56.78 | 59.66 | 60.36 | 57.98 | 59.33 | 59.16 | 58.85 |
| 1997 | 65.42 | 72.50 | 78.11 | 80.13 | 80.84 | 83.17 | 78.55 | 81.74 | 81.26 | 80.16 | 79.44 | 79.21 | 78.38 |
| 1998 | 81.16 | 83.33 | 86.08 | 85.81 | 85.50 | 81.79 | 75.61 | 67.21 | 69.88 | 68.90 | 73.73 | 71.64 | 77.55 |
| **600-700 lbs** | | | | | | | | | | | | | |
| 1994 | 83.35 | 83.77 | 85.04 | 85.62 | 81.72 | 76.21 | 72.95 | 74.16 | 72.40 | 68.76 | 70.21 | 68.59 | 76.90 |
| 1995 | 73.50 | 71.34 | 69.00 | 67.16 | 66.76 | 67.18 | 62.29 | 62.00 | 61.42 | 52.53 | 60.19 | 60.07 | 64.45 |
| 1996 | 56.53 | 57.62 | 56.01 | 53.99 | 54.48 | 54.45 | 55.60 | 58.05 | 59.73 | 56.82 | 58.30 | 57.29 | 56.57 |
| 1997 | 64.31 | 68.20 | 71.32 | 74.03 | 75.15 | 79.81 | 73.28 | 74.91 | 76.62 | 75.01 | 74.89 | 74.29 | 73.48 |
| 1998 | 74.79 | 77.38 | 77.56 | 80.71 | 81.06 | 79.14 | 72.11 | 64.10 | 61.11 | 65.04 | 67.66 | 66.64 | 72.27 |
| **700-800 lbs** | | | | | | | | | | | | | |
| 1994 | 79.27 | 79.82 | 79.85 | 77.22 | 70.63 | 70.59 | 71.09 | 71.08 | 67.92 | 65.59 | 67.07 | 66.08 | 72.19 |
| 1995 | 70.45 | 69.37 | 65.48 | 63.05 | 61.92 | 62.27 | 59.52 | 60.68 | 60.46 | 58.77 | 58.94 | 61.01 | 62.66 |
| 1996 | 55.65 | 53.48 | 52.80 | 50.38 | 51.49 | 52.40 | 55.48 | 58.69 | 57.99 | 56.76 | 57.13 | 57.37 | 54.97 |
| 1997 | 62.37 | 65.84 | 65.22 | 66.91 | 70.70 | 72.90 | 70.91 | 72.79 | 73.88 | 70.94 | 70.91 | 70.74 | 69.51 |
| 1998 | 72.30 | 72.04 | 72.35 | 73.62 | 74.10 | 71.82 | 64.90 | 61.91 | 59.99 | 61.24 | 63.79 | 63.79 | 67.65 |

1/ Monthly and annual averages not weighted by marketings
Source: Utah Department of Agriculture and Food, Market News weekly reports for the Cedar City, Salina, Spanish Fork, and Weber livestock auctions.

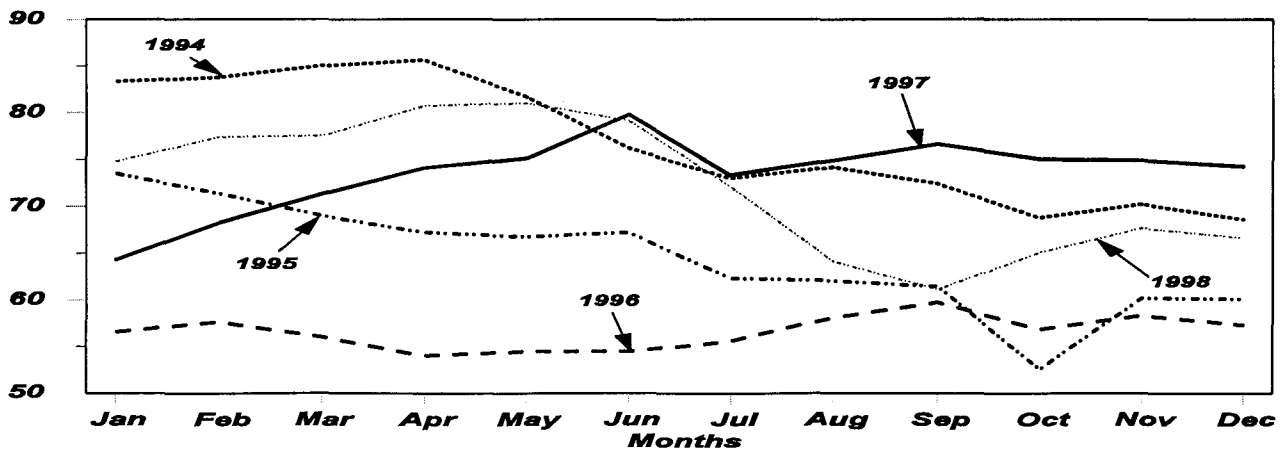
## Feeder Heifers, 500-600 Lbs
### by month, Utah Auction, 1994-98




## Feeder Holstein Steers, 500-700 Lbs
### by month, Utah Auction, 1994-98




## Feeder Steers, 600-700 Lbs
### by month, Utah Auction, 1994-98



# County Estimates

County estimates are an integral part of agricultural statistics. These estimates provide data to compare acres, production, and yield in different counties within the State of Utah. Crop county estimates play a major role in Federal Farm Program payments and crop insurance settlements, thus, directly effecting many farmers and ranchers. A cooperative agreement between the Utah Department of Agriculture and Food and the Utah Agricultural Statistics Service, USDA provides funding in support of county estimates contained in this publication.

Box Elder was the "Number one" county in **total grain** production (wheat, barley, oats, and corn) followed by Cache, Utah, Millard, and Davis Counties. Box Elder was also "number one" in acres of **small grain production** (wheat, barley, oats) followed by Cache, Utah, Millard, and San Juan Counties.

Box Elder County was the State's largest producer of **winter wheat** producing 53 percent of the State total. Cache County ranked second followed by San Juan, Utah, and Salt Lake Counties.

**Spring wheat** production was also dominated by Box Elder County followed by Cache, Utah, Millard, and Davis Counties.

**Barley** production was led by Cache County followed by Millard, Box Elder, Utah, and Sanpete Counties. The top five counties' production accounted for 75 percent of the State total.

Box Elder was the "Number one" producer of **oats** in the State followed by Uintah, Cache, Emery, and Sanpete Counties.

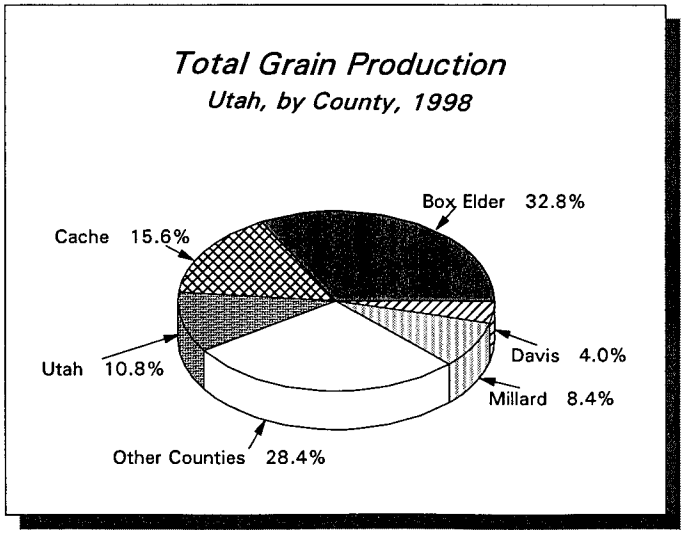
**Corn for grain** production was led by Box Elder followed by Utah, Davis, Millard, and Uintah Counties. Box Elder County led in production of **corn silage** followed by Cache, Utah, Millard, and Sevier Counties.

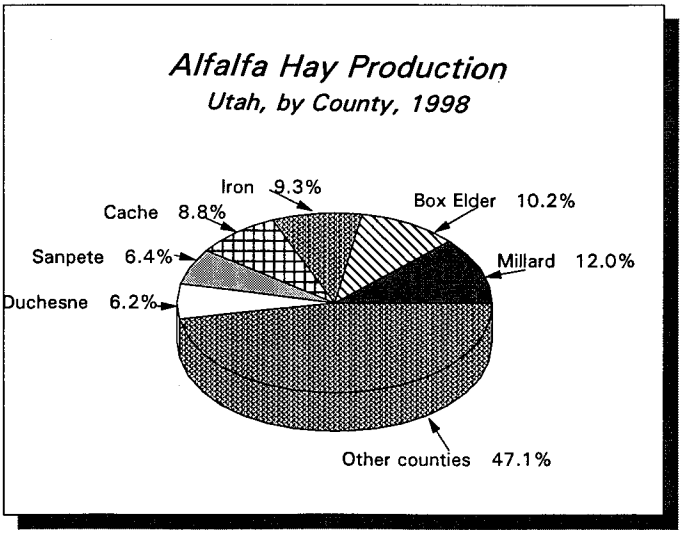
**Alfalfa hay** production was led by Millard County followed by Box Elder, Iron, Cache, and Sanpete Counties. Rich was the leading county in **other hay** production followed by Duchesne, Sanpete, Cache, Summit, and Box Elder.

Box Elder County had the largest inventory of **cattle and calves** as of January 1, 1999 followed by Cache, Utah, Millard, Duchesne, and Rich. Cache County continued as the major county for **milk cows** with over twice the number as Millard which ranked in second place. Box Elder, Utah, Sanpete, and Weber were also major dairy counties.

Sanpete was once again the "Number one" **sheep** county. Other major sheep producing counties were Box Elder, Iron, Utah, and Summit. The top five counties accounted for 61 percent of the total.

Preliminary indications of 1997 total **cash receipts** show Box Elder County as the "Number one" county. Cache is second, followed by Utah, Sanpete, and Beaver. Cache was the leading county for livestock cash receipts followed by Sanpete. Crops cash receipts were topped by Box Elder County followed by Utah County.



# County Estimates: by County, Selected Items and Years, Utah

| Item | Unit | State | County | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Beaver | Box Elder | Cache | Carbon | Daggett | Davis |
| ***1998 Production*** | | | | | | | | |
| All Wheat | Bu | 8,834,000 | 1/ | 4,448,000 | 1,052,000 | 1/ | | 316,000 |
| All Barley | Bu | 7,055,000 | 78,000 | 990,000 | 1,940,000 | 1/ | 1/ | 87,000 |
| Corn for Grain | Bu | 3,384,000 | | 992,000 | 56,000 | 36,000 | 10,000 | 375,000 |
| Corn for Silage | Tons | 777,000 | 31,000 | 124,000 | 114,000 | 6,000 | | 15,000 |
| Oats | Bu | 630,000 | 16,000 | 100,000 | 59,000 | 8,000 | 1/ | 11,000 |
| All Hay | Tons | 2,778,000 | 125,500 | 267,300 | 234,200 | 19,600 | 17,200 | 33,700 |
| Alfalfa & Alfalfa Mix Hay | Tons | 2,398,000 | 117,000 | 244,000 | 210,000 | 17,000 | 11,000 | 29,000 |
| ***January 1, 1999 Inventory*** | | | | | | | | |
| All Cattle & Calves | Head | 890,000 | 36,000 | 106,000 | 71,000 | 10,000 | 4,000 | 9,000 |
| Beef Cows | Head | 335,000 | 11,500 | 35,000 | 8,500 | 5,500 | 2,000 | 3,000 |
| Milk Cows | Head | 95,000 | 3,500 | 9,000 | 25,500 | | | 500 |
| Breeding Sheep & Lambs | Head | 360,000 | 1/ | 58,500 | 4,000 | 7,000 | 500 | 3,500 |
| ***Cash Receipts, 1997*** | | | | | | | | |
| Livestock & Lvstk Products | Mill $ | 714.9 | 62.4 | 64.4 | 84.3 | 4.1 | 2.1 | 13.3 |
| Crops | Mill $ | 238.1 | 4.5 | 39.4 | 17.6 | 1.0 | 0.7 | 21.4 |
| Total | Mill $ | 953.0 | 66.9 | 103.8 | 101.9 | 5.1 | 2.8 | 34.7 |
| ***1997 Census of Agriculture*** | | | | | | | | |
| Number of Farms | Num | 14,181 | 219 | 1,077 | 1,232 | 199 | 36 | 559 |
| Land in Farms | Acres | 12,024,661 | 130,994 | 1,357,734 | 266,374 | 201,679 | 26,485 | 67,906 |
| Harvested Cropland 2/ | Acres | 1,107,928 | 28,209 | 174,615 | 119,910 | 6,060 | 7,676 | 17,808 |
| Irrigated Land 3/ | Acres | 1,212,201 | 35,177 | 137,074 | 93,008 | 10,588 | 7,840 | 21,907 |

| Item | Unit | County | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Duchesne | Emery | Garfield | Grand | Iron | Juab | Kane |
| ***1998 Production*** | | | | | | | | |
| All Wheat | Bu | 1/ | 1/ | 1/ | | 25,000 | 285,000 | |
| All Barley | Bu | 144,000 | 1/ | 1/ | | 173,000 | 162,000 | 1/ |
| Corn for Grain | Bu | 192,000 | 112,000 | | | | 15,000 | |
| Corn for Silage | Tons | 14,000 | 12,000 | | 2,000 | 12,000 | 8,000 | 2,000 |
| Oats | Bu | 35,000 | 55,000 | 6,000 | 1/ | 11,000 | 6,000 | 1/ |
| All Hay | Tons | 189,400 | 64,200 | 43,000 | 11,300 | 235,500 | 75,000 | 11,800 |
| Alfalfa & Alfalfa Mix Hay | Tons | 149,000 | 57,000 | 37,000 | 10,000 | 222,000 | 68,000 | 10,000 |
| ***January 1, 1999 Inventory*** | | | | | | | | |
| All Cattle & Calves | Head | 58,000 | 27,000 | 21,000 | 3,000 | 22,000 | 16,000 | 10,000 |
| Beef Cows | Head | 30,000 | 13,000 | 11,000 | 2,000 | 9,000 | 7,000 | 6,000 |
| Milk Cows | Head | 3,000 | 1,000 | | | 2,500 | | |
| Breeding Sheep & Lambs | Head | 9,000 | 5,500 | 2,200 | 2,500 | 36,500 | 9,500 | 1,000 |
| ***Cash Receipts, 1997*** | | | | | | | | |
| Livestock & Lvstk Products | Mill $ | 33.5 | 15.5 | 8.6 | 5.4 | 13.0 | 5.7 | 4.8 |
| Crops | Mill $ | 8.2 | 3.0 | 1.9 | 1.0 | 14.6 | 4.2 | 0.5 |
| Total | Mill $ | 41.7 | 18.5 | 10.5 | 6.4 | 27.6 | 9.9 | 5.3 |
| ***1997 Census of Agriculture*** | | | | | | | | |
| Number of Farms | Num | 811 | 450 | 285 | 85 | 375 | 228 | 143 |
| Land in Farms | Acres | 1,328,307 | 158,798 | 121,381 | 75,801 | 404,574 | 275,632 | 175,384 |
| Harvested Cropland 2/ | Acres | 56,971 | 20,922 | 14,565 | 3,254 | 53,457 | 29,998 | 3,210 |
| Irrigated Land 3/ | Acres | 114,790 | 41,198 | 25,406 | 4,472 | 60,400 | 22,236 | 7,198 |

1/ Less than 500 acres harvested. 2/ Includes land from which crops were harvested or hay was cut, and land in orchards. 3/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

## County Estimates: by County, Selected Items and Years, Utah (continued)

| Item | Unit | County | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Millard | Morgan | Piute | Rich | Salt Lake | San Juan | Sanpete | Sevier |
| ***1998 Production*** | | | | | | | | | |
| All Wheat | Bu | 362,000 | 1/ | | 1/ | 288,000 | 631,000 | 1/ | 1/ |
| All Barley | Bu | 1,015,000 | 115,000 | 1/ | 63,000 | 185,000 | 1/ | 590,000 | 189,000 |
| Corn for Grain | Bu | 268,000 | | | | 112,000 | 33,000 | 26,000 | 94,000 |
| Corn for Silage | Tons | 95,000 | 4,000 | 2,000 | | 7,000 | 5,000 | 36,000 | 64,000 |
| Oats | Bu | 34,000 | 16,000 | 8,000 | 15,000 | 7,000 | 23,000 | 44,000 | 17,000 |
| All Hay | Tons | 301,400 | 36,100 | 33,000 | 104,000 | 30,800 | 23,200 | 182,800 | 127,000 |
| Alfalfa & Alfalfa Mix Hay | Tons | 287,000 | 32,000 | 27,000 | 32,000 | 28,000 | 20,000 | 154,000 | 117,000 |
| ***January 1, 1999 Inventory*** | | | | | | | | | |
| All Cattle & Calves | Head | 61,000 | 10,000 | 11,000 | 56,000 | 8,000 | 21,000 | 52,500 | 44,000 |
| Beef Cows | Head | 17,500 | 4,000 | 5,000 | 29,500 | 3,000 | 11,000 | 17,000 | 11,000 |
| Milk Cows | Head | 11,000 | 1,500 | 2,000 | | 1,000 | | 6,500 | |
| Breeding Sheep & Lambs | Head | 8,000 | 15,500 | 3,000 | 9,500 | 4,000 | 2,000 | 59,000 | 4,000 |
| ***Cash Receipts, 1997*** | | | | | | | | | |
| Livestock & Lvst Products | Mill $ | 37.8 | 11.3 | 7.8 | 18.4 | 24.4 | 8.4 | 77.1 | 34.1 |
| Crops | Mill $ | 25.3 | 2.0 | 1.6 | 4.5 | 8.9 | 4.9 | 9.6 | 6.4 |
| Total | Mill $ | 63.1 | 13.3 | 9.4 | 22.9 | 33.3 | 13.3 | 86.7 | 40.5 |
| ***1997 Census of Agriculture*** | | | | | | | | | |
| Number of Farms | Num | 650 | 243 | 106 | 162 | 593 | 231 | 776 | 478 |
| Land in Farms | Acres | 457,823 | 179,246 | 44,540 | 523,744 | 113,912 | 1,673,079 | 359,717 | 147,032 |
| Harvested Cropland 2/ | Acres | 94,530 | 14,696 | 10,934 | 52,983 | 20,319 | 53,772 | 60,783 | 34,169 |
| Irrigated Land 3/ | Acres | 99,248 | 8,836 | 14,257 | 74,559 | 14,647 | 9,078 | 72,315 | 43,728 |

| Item | Unit | County | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Summit | Tooele | Uintah | Utah | Wasatch | Washington | Wayne | Weber |
| ***1998 Production*** | | | | | | | | | |
| All Wheat | Bu | 1/ | 164,000 | 34,000 | 733,000 | | 16,000 | | 229,000 |
| All Barley | Bu | 37,000 | 83,000 | 109,000 | 729,000 | 60,000 | 1/ | 53,000 | 157,000 |
| Corn for Grain | Bu | | 14,000 | 195,000 | 672,000 | | | | 182,000 |
| Corn for Silage | Tons | | 4,000 | 40,000 | 104,000 | 2,000 | 6,000 | 7,000 | 61,000 |
| Oats | Bu | 9,000 | 5,000 | 60,000 | 25,000 | 1/ | 6,000 | 7,000 | 40,000 |
| All Hay | Tons | 49,000 | 56,900 | 150,600 | 160,800 | 29,500 | 43,800 | 44,400 | 77,000 |
| Alfalfa & Alfalfa Mix Hay | Tons | 25,000 | 51,000 | 133,000 | 138,000 | 25,000 | 39,000 | 40,000 | 69,000 |
| ***January 1, 1999 Inventory*** | | | | | | | | | |
| All Cattle & Calves | Head | 25,000 | 22,000 | 48,000 | 61,500 | 9,000 | 18,000 | 22,000 | 28,000 |
| Beef Cows | Head | 13,500 | 12,000 | 24,500 | 18,500 | 2,500 | 9,000 | 8,500 | 5,000 |
| Milk Cows | Head | 1,500 | | 1,500 | 9,000 | 1,500 | | 1,500 | 6,000 |
| Breeding Sheep & Lambs | Head | 32,500 | 6,500 | 14,000 | 34,500 | 14,000 | 1/ | 7,000 | 6,500 |
| ***Cash Receipts, 1997*** | | | | | | | | | |
| Livestock & Lvst Products | Mill $ | 13.5 | 12.1 | 23.9 | 69.9 | 9.3 | 9.7 | 10.7 | 29.4 |
| Crops | Mill $ | 2.0 | 3.4 | 7.0 | 30.1 | 1.9 | 3.8 | 2.0 | 6.7 |
| Total | Mill $ | 15.5 | 15.5 | 30.9 | 100.0 | 11.2 | 13.5 | 12.7 | 36.1 |
| ***1997 Census of Agriculture*** | | | | | | | | | |
| Number of Farms | Num | 476 | 332 | 795 | 1,790 | 294 | 429 | 191 | 936 |
| Land in Farms | Acre | 589,528 | 291,746 | 2,268,090 | 374,933 | 106,142 | 163,135 | 59,593 | 81,352 |
| Harvested Cropland 2/ | Acre | 20,435 | 16,966 | 44,954 | 86,976 | 9,295 | 10,321 | 13,667 | 26,473 |
| Irrigated Land 3/ | Acre | 28,429 | 18,944 | 83,939 | 81,168 | 15,424 | 16,057 | 17,627 | 32,651 |

1/ Less than 500 acres harvested. 2/ Includes land from which crops were harvested or hay was cut, and land in orchards. 3/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

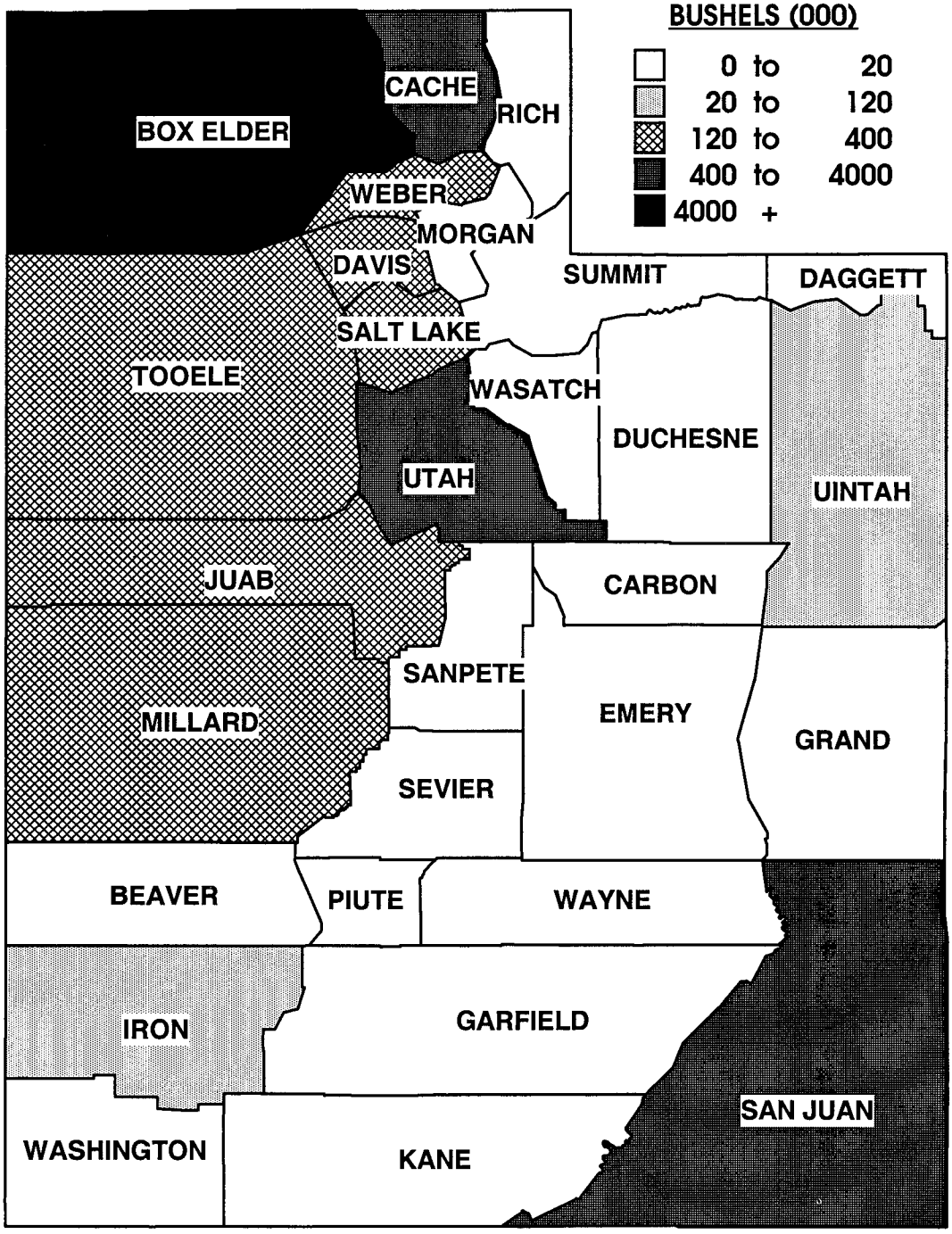
## County Estimates: All Wheat, All Cropping Practices, Utah, 1997 (revised) & 1998

| District and County | Acres | | | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|---|---|
| | Planted | | Harvested | | 1997 | 1998 | 1997 | 1998 |
| | 1997 | 1998 | 1997 | 1998 | | | | |
| | Acres | | | | Bushels | | | |
| ***Northern*** | | | | | | | | |
| Box Elder | 78,400 | 74,700 | 76,800 | 72,500 | 57 | 61 | 4,355,000 | 4,448,000 |
| Cache | 19,500 | 19,200 | 19,100 | 18,700 | 53 | 56 | 1,005,000 | 1,052,000 |
| Davis | 3,400 | 3,600 | 3,400 | 3,600 | 86 | 88 | 293,000 | 316,000 |
| Morgan | 2,700 | * | 2,700 | * | 34 | * | 92,000 | * |
| Rich | * | * | * | * | * | * | * | * |
| Salt Lake | 9,400 | 9,300 | 9,000 | 9,000 | 34 | 32 | 305,000 | 288,000 |
| Tooele | 4,200 | 4,200 | 4,100 | 4,200 | 45 | 39 | 183,000 | 164,000 |
| Weber | * | 3,000 | * | 3,000 | * | 76 | * | 229,000 |
| Other Counties | 2,900 | 2,500 | 2,900 | 2,500 | 73 | 47 | 212,000 | 118,000 |
| Total | 120,500 | 116,500 | 118,000 | 113,500 | 55 | 58 | 6,445,000 | 6,615,000 |
| ***Central*** | | | | | | | | |
| Juab | 5,800 | 6,600 | 5,600 | 6,300 | 47 | 45 | 263,000 | 285,000 |
| Millard | 5,600 | 5,100 | 5,600 | 4,900 | 69 | 74 | 388,000 | 362,000 |
| Sanpete | * | * | * | * | * | * | * | * |
| Sevier | * | * | * | * | * | * | * | * |
| Utah | 18,700 | 18,100 | 18,400 | 17,200 | 39 | 43 | 717,000 | 733,000 |
| Other Counties | 1,400 | 1,200 | 1,400 | 1,100 | 67 | 78 | 94,000 | 86,000 |
| Total | 31,500 | 31,000 | 31,000 | 29,500 | 47 | 50 | 1,462,000 | 1,466,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | * | * | * |
| Daggett | | | | | | | | |
| Duchesne | * | * | * | * | * | * | * | * |
| Emery | | * | | * | | * | | * |
| Grand | * | | * | | * | | * | |
| San Juan | 39,400 | 28,500 | 37,400 | 27,600 | 20 | 23 | 738,000 | 631,000 |
| Summit | * | * | * | * | * | * | * | * |
| Uintah | 1,400 | 800 | 1,400 | 800 | 29 | 43 | 41,000 | 34,000 |
| Wasatch | | | | | | | | |
| Other Counties | 700 | 700 | 700 | 600 | 37 | 58 | 26,000 | 35,000 |
| Total | 41,500 | 30,000 | 39,500 | 29,000 | 20 | 24 | 805,000 | 700,000 |
| ***Southern*** | | | | | | | | |
| Beaver | * | * | | * | | * | | * |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 600 | 700 | 200 | 500 | 75 | 50 | 15,000 | 25,000 |
| Kane | | * | | | | | | |
| Piute | | | | | | | | |
| Washington | 600 | 500 | 200 | 300 | 50 | 53 | 10,000 | 16,000 |
| Wayne | | | | | | | | |
| Other Counties | 300 | 300 | 100 | 200 | 50 | 60 | 5,000 | 12,000 |
| Total | 1,500 | 1,500 | 500 | 1,000 | 60 | 53 | 30,000 | 53,000 |
| ***State*** | | | | | | | | |
| Total | 195,000 | 179,000 | 189,000 | 173,000 | 46 | 51 | 8,742,000 | 8,834,000 |

*Less than 500 planted acres, combined with other counties to avoid disclosure of individual operations.

# UTAH ALL WHEAT PRODUCTION

## By County, 1998



## County Estimates: All Wheat, by Cropping Practice, Utah, 1997 (revised)

| District and County | Irrigated | | | | Non-Irrigated | | | |
|---|---|---|---|---|---|---|---|---|
| | Acres | | Harvested Yield | Production | Acres | | Harvested Yield | Production |
| | Planted | Harvested | | | Planted | Harvested | | |
| | Acres | | Bushels | | Acres | | Bushels | |
| ***Northern*** | | | | | | | | |
| Box Elder | 32,100 | 32,100 | 87 | 2,782,000 | 46,300 | 44,700 | 35 | 1,573,000 |
| Cache | 8,500 | 8,500 | 77 | 651,000 | 11,000 | 10,600 | 33 | 354,000 |
| Davis | 3,100 | 3,100 | 92 | 284,000 | 300 | 300 | 30 | 9,000 |
| Morgan | 300 | 300 | 60 | 18,000 | 2,400 | 2,400 | 31 | 74,000 |
| Rich | * | * | * | * | * | * | * | * |
| Salt Lake | 400 | 400 | 85 | 34,000 | 9,000 | 8,600 | 32 | 271,000 |
| Tooele | 800 | 800 | 86 | 69,000 | 3,400 | 3,300 | 35 | 114,000 |
| Weber | * | * | * | * | * | * | * | * |
| Other Counties | 2,500 | 2,500 | 80 | 199,000 | 400 | 400 | 33 | 13,000 |
| Total | 47,700 | 47,700 | 84 | 4,037,000 | 72,800 | 70,300 | 34 | 2,408,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,800 | 1,800 | 74 | 134,000 | 4,000 | 3,800 | 34 | 129,000 |
| Millard | 4,300 | 4,300 | 80 | 346,000 | 1,300 | 1,300 | 32 | 42,000 |
| Sanpete | * | * | * | * | * | * | * | * |
| Sevier | * | * | * | * | * | * | * | * |
| Utah | 4,500 | 4,500 | 77 | 348,000 | 14,200 | 13,900 | 27 | 369,000 |
| Other Counties | 1,300 | 1,300 | 69 | 90,000 | 100 | 100 | 40 | 4,000 |
| Total | 11,900 | 11,900 | 88 | 918,000 | 19,600 | 19,100 | 28 | 544,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | | | | |
| Daggett | | | | | | | | |
| Duchesne | * | * | * | * | * | * | * | * |
| Emery | | | | | | | | |
| Grand | | | | | * | * | * | * |
| San Juan | 300 | 300 | 73 | 22,000 | 39,100 | 37,100 | 19 | 716,000 |
| Summit | * | * | * | * | | | | |
| Uintah | 200 | 200 | 50 | 10,000 | 1,200 | 1,200 | 26 | 31,000 |
| Wasatch | | | | | | | | |
| Other Counties | 400 | 400 | 43 | 17,000 | 300 | 300 | 30 | 9,000 |
| Total | 900 | 900 | 63 | 49,000 | 40,600 | 38,600 | 20 | 756,000 |
| ***Southern*** | | | | | | | | |
| Beaver | * | * | * | * | * | * | * | * |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 200 | 200 | 75 | 15,000 | 400 | | | |
| Kane | | | | | | | | |
| Piute | | | | | | | | |
| Washington | 200 | 200 | 50 | 10,000 | 400 | | | |
| Wayne | | | | | | | | |
| Other Counties | 100 | 100 | 50 | 5,000 | 200 | | | |
| Total | 500 | 500 | 78 | 30,000 | 1,000 | | | |
| ***State*** | | | | | | | | |
| Total | 61,000 | 61,000 | 83 | 5,034,000 | 134,000 | 128,000 | 29 | 3,708,000 |

* Less than 500 acres planted for all cropping practices, combined with other counties.

## County Estimates: All Wheat, by Cropping Practice, Utah, 1998

| District and County | Irrigated | | | | Non-Irrigated | | | |
|---|---|---|---|---|---|---|---|---|
| | Acres | | Harvested Yield | Production | Acres | | Harvested Yield | Production |
| | Planted | Harvested | | | Planted | Harvested | | |
| | Acres | | Bushels | | Acres | | Bushels | |
| ***Northern*** | | | | | | | | |
| Box Elder | 30,700 | 30,700 | 91 | 2,782,000 | 44,000 | 41,800 | 40 | 1,666,000 |
| Cache | 8,200 | 8,200 | 80 | 652,000 | 11,000 | 10,500 | 38 | 400,000 |
| Davis | 3,300 | 3,300 | 92 | 305,000 | 300 | 300 | 37 | 11,000 |
| Morgan | * | * | * | * | * | * | * | * |
| Rich | * | * | * | * | * | * | * | * |
| Salt Lake | 400 | 400 | 85 | 34,000 | 8,900 | 8,600 | 30 | 254,000 |
| Tooele | 700 | 700 | 79 | 55,000 | 3,500 | 3,500 | 31 | 109,000 |
| Weber | 2,500 | 2,500 | 84 | 210,000 | 500 | 500 | 38 | 19,000 |
| Other Counties | 700 | 700 | 79 | 55,000 | 1,800 | 1,800 | 35 | 63,000 |
| Total | 46,500 | 46,500 | 88 | 4,093,000 | 70,000 | 67,000 | 38 | 2,522,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,700 | 1,700 | 80 | 136,000 | 4,900 | 4,600 | 32 | 149,000 |
| Millard | 4,000 | 4,000 | 83 | 333,000 | 1,100 | 900 | 32 | 29,000 |
| Sanpete | * | * | * | * | * | * | * | * |
| Sevier | * | * | * | * | * | * | * | * |
| Utah | 4,800 | 4,800 | 79 | 378,000 | 13,300 | 12,400 | 29 | 355,000 |
| Other Counties | 1,100 | 1,100 | 78 | 86,000 | 100 | | | |
| Total | 11,600 | 11,600 | 80 | 933,000 | 19,400 | 17,900 | 30 | 533,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | * | * | * |
| Daggett | | | | | | | | |
| Duchesne | * | * | * | * | * | * | * | * |
| Emery | * | * | * | * | * | * | * | * |
| Grand | | | | | | | | |
| San Juan | 200 | 200 | 60 | 12,000 | 28,300 | 27,400 | 23 | 619,000 |
| Summit | * | * | * | * | * | * | * | * |
| Uintah | 300 | 300 | 70 | 21,000 | 500 | 500 | 26 | 13,000 |
| Wasatch | | | | | | | | |
| Other Counties | 500 | 500 | 64 | 32,000 | 200 | 100 | 30 | 3,000 |
| Total | 1,000 | 1,000 | 65 | 65,000 | 29,000 | 28,000 | 23 | 635,000 |
| ***Southern*** | | | | | | | | |
| Beaver | * | * | * | * | * | * | * | * |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 400 | 400 | 58 | 23,000 | 300 | 100 | 20 | 2,000 |
| Kane | * | * | * | * | * | * | * | * |
| Piute | | | | | | | | |
| Washington | 300 | 300 | 53 | 16,000 | 200 | | | |
| Wayne | | | | | | | | |
| Other Counties | 200 | 200 | 60 | 12,000 | 100 | | | |
| Total | 900 | 900 | 57 | 51,000 | 600 | 100 | 20 | 2,000 |
| ***State*** | | | | | | | | |
| Total | 60,000 | 60,000 | 86 | 5,142,000 | 119,000 | 113,000 | 33 | 3,692,000 |

* Less than 500 acres planted for all cropping practices, combined with other counties.

## County Estimates: Winter Wheat, All Cropping Practices, Utah, 1997(revised) & 98

| District and County | Acres | | | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|---|---|
| | Planted | | Harvested | | 1997 | 1998 | 1997 | 1998 |
| | 1997 | 1998 | 1997 | 1998 | | | | |
| | Acres | | | | Bushels | | | |
| ***Northern*** | | | | | | | | |
| Box Elder | 68,900 | 66,300 | 67,600 | 64,400 | 58 | 62 | 3,945,000 | 3,992,000 |
| Cache | 16,400 | 15,900 | 16,100 | 15,500 | 53 | 58 | 860,000 | 897,000 |
| Davis | 3,000 | 2,700 | 3,000 | 2,700 | 88 | 90 | 264,000 | 242,000 |
| Morgan | 2,100 | * | 2,100 | * | 30 | * | 63,000 | * |
| Rich | * | * | * | * | * | * | * | * |
| Salt Lake | 8,500 | 8,200 | 8,200 | 8,000 | 34 | 32 | 275,000 | 255,000 |
| Tooele | 3,400 | 3,400 | 3,300 | 3,400 | 46 | 39 | 152,000 | 133,000 |
| Weber | * | 2,000 | * | 2,000 | * | 84 | * | 167,000 |
| Other Counties | 2,200 | 1,500 | 2,200 | 1,500 | 77 | 37 | 169,000 | 56,000 |
| Total | 104,500 | 100,000 | 102,500 | 97,500 | 56 | 59 | 5,728,000 | 5,742,000 |
| ***Central*** | | | | | | | | |
| Juab | 4,600 | 5,600 | 4,400 | 5,400 | 45 | 44 | 200,000 | 235,000 |
| Millard | 4,000 | 3,400 | 4,000 | 3,300 | 66 | 69 | 262,000 | 227,000 |
| Sanpete | * | * | * | * | * | * | * | * |
| Sevier | * | * | * | * | * | * | * | * |
| Utah | 16,100 | 15,500 | 15,800 | 14,800 | 37 | 40 | 580,000 | 590,000 |
| Other Counties | 800 | 500 | 800 | 500 | 73 | 78 | 58,000 | 39,000 |
| Total | 25,500 | 25,000 | 25,000 | 24,000 | 44 | 45 | 1,100,000 | 1,091,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | | * | |
| Daggett | | | | | | | | |
| Duchesne | * | * | * | * | * | * | * | * |
| Emery | * | * | * | * | * | * | * | * |
| Grand | * | * | * | * | * | * | * | * |
| San Juan | 38,200 | 28,500 | 36,200 | 27,600 | 20 | 23 | 707,000 | 631,000 |
| Summit | * | | * | | * | | * | |
| Uintah | 500 | 200 | 500 | 200 | 32 | 25 | 16,000 | 5,000 |
| Wasatch | * | | * | | * | | * | |
| Other Counties | 300 | 300 | 300 | 200 | 30 | 45 | 9,000 | 9,000 |
| Total | 39,000 | 29,000 | 37,000 | 28,000 | 20 | 23 | 732,000 | 645,000 |
| ***Southern*** | | | | | | | | |
| Beaver | | | | | | | | |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 400 | 400 | 200 | 200 | 75 | 35 | 15,000 | 7,000 |
| Kane | * | * | * | | * | | * | |
| Piute | | | | | | | | |
| Washington | 400 | 400 | 200 | 200 | 50 | 50 | 10,000 | 10,000 |
| Wayne | * | * | * | | | | | |
| Other Counties | 200 | 200 | 100 | 100 | 50 | 50 | 5,000 | 5,000 |
| Total | 1,000 | 1,000 | 500 | 500 | 60 | 44 | 30,000 | 22,000 |
| ***State*** | | | | | | | | |
| Total | 170,000 | 155,000 | 165,000 | 150,000 | 46 | 50 | 7,590,000 | 7,500,000 |

*Less than 500 planted acres, combined with other counties.

## County Estimates: Spring Wheat, All Cropping Practices, Utah, 1997(revised) & 1998

| District and County | Acres | | | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|---|---|
| | Planted | | Harvested | | 1997 | 1998 | 1997 | 1998 |
| | 1997 | 1998 | 1997 | 1998 | | | | |
| | Acres | | | | Bushels | | | |
| ***Northern*** | | | | | | | | |
| Box Elder | 9,500 | 8,400 | 9,200 | 8,100 | 45 | 56 | 410,000 | 456,000 |
| Cache | 3,100 | 3,300 | 3,000 | 3,200 | 48 | 48 | 145,000 | 155,000 |
| Davis | 400 | 900 | 400 | 900 | 73 | 82 | 29,000 | 74,000 |
| Morgan | 600 | * | 600 | * | 48 | * | 29,000 | * |
| Rich | * | * | * | * | * | * | * | * |
| Salt Lake | 900 | 1,100 | 800 | 1,000 | 38 | 33 | 30,000 | 33,000 |
| Tooele | 800 | 800 | 800 | 800 | 39 | 39 | 31,000 | 31,000 |
| Weber | * | 1,000 | * | 1,000 | * | 62 | * | 62,000 |
| Other Counties | 700 | 1,000 | 700 | 1,000 | 61 | 62 | 43,000 | 62,000 |
| Total | 16,000 | 16,500 | 15,500 | 16,000 | 46 | 55 | 717,000 | 873,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,200 | 1,000 | 1,200 | 900 | 53 | 56 | 63,000 | 50,000 |
| Millard | 1,600 | 1,700 | 1,600 | 1,600 | 79 | 84 | 126,000 | 135,000 |
| Sanpete | * | * | * | * | * | * | * | * |
| Sevier | * | * | * | * | * | * | * | * |
| Utah | 2,600 | 2,600 | 2,600 | 2,400 | 53 | 60 | 137,000 | 143,000 |
| Other Counties | 600 | 700 | 600 | 600 | 60 | 78 | 36,000 | 47,000 |
| Total | 6,000 | 6,000 | 6,000 | 5,500 | 60 | 68 | 362,000 | 375,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | * | * | * |
| Daggett | | | | | | | | |
| Duchesne | * | * | * | * | * | * | * | * |
| Emery | * | * | * | * | * | * | * | * |
| Grand | | | | | | | | |
| San Juan | 1,200 | * | 1,200 | * | 26 | * | 31,000 | * |
| Summit | * | * | * | * | * | * | * | * |
| Uintah | 900 | 600 | 900 | 600 | 28 | 48 | 25,000 | 29,000 |
| Wasatch | * | | * | | * | | * | |
| Other Counties | 400 | 400 | 400 | 400 | 43 | 65 | 17,000 | 26,000 |
| Total | 2,500 | 1,000 | 2,500 | 1,000 | 29 | 55 | 73,000 | 55,000 |
| ***Southern*** | | | | | | | | |
| Beaver | * | * | * | * | * | * | * | * |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 200 | 300 | * | 300 | * | 60 | * | 18,000 |
| Kane | * | * | * | * | * | * | * | * |
| Piute | | | | | | | | |
| Washington | 200 | 100 | * | 100 | * | 60 | * | 6,000 |
| Wayne | * | * | * | * | * | * | * | * |
| Other Counties | 100 | 100 | | 100 | | 70 | | 7,000 |
| Total | 500 | 500 | * | 500 | * | 62 | * | 31,000 |
| ***State*** | | | | | | | | |
| Total | 25,000 | 24,000 | 24,000 | 23,000 | 48 | 58 | 1,152,000 | 1,334,000 |

*Less than 500 planted acres, combined with other counties to avoid disclosure of individual operations.

## County Estimates: Corn, All Cropping Practices, Utah, 1997 (revised) 1/

| District and County | Acres Planted All Purposes | Corn for Grain | | | Corn for Silage | | |
|---|---|---|---|---|---|---|---|
| | | Acres Harvested | Harvested Yield | Production | Acres Harvested | Harvested Yield | Production |
| | Acres | | Bushels | | Acres | Tons | |
| ***Northern*** | | | | | | | |
| Box Elder | 12,300 | 6,200 | 161 | 1,001,000 | 6,000 | 25 | 150,000 |
| Cache | 6,900 | 400 | 145 | 58,000 | 6,200 | 23 | 145,000 |
| Davis | 2,900 | 1,900 | 153 | 290,000 | 1,000 | 26 | 26,000 |
| Morgan | * | | | | * | * | * |
| Rich | | | | | | | |
| Salt Lake | 1,000 | 500 | 166 | 83,000 | 400 | 26 | 10,500 |
| Tooele | * | | | | * | * | * |
| Weber | 4,300 | 900 | 144 | 130,000 | 3,400 | 25 | 84,000 |
| Other Counties | 600 | | | | 500 | 21 | 10,500 |
| Total | 28,000 | 9,900 | 158 | 1,562,000 | 17,500 | 24 | 426,000 |
| ***Central*** | | | | | | | |
| Juab | 600 | 100 | 150 | 15,000 | 500 | 22 | 11,000 |
| Millard | 5,500 | 2,000 | 124 | 247,000 | 3,500 | 23 | 79,000 |
| Sanpete | 1,900 | | | | 1,900 | 22 | 41,000 |
| Sevier | 4,200 | 700 | 131 | 92,000 | 3,500 | 24 | 84,000 |
| Utah | 8,800 | 3,700 | 147 | 544,000 | 5,100 | 24 | 120,000 |
| Total | 21,000 | 6,500 | 138 | 898,000 | 14,500 | 23 | 335,000 |
| ***Eastern*** | | | | | | | |
| Carbon | 700 | 200 | 120 | 24,000 | 500 | 16 | 8,000 |
| Daggett | * | * | * | * | | | |
| Duchesne | 2,700 | 1,400 | 116 | 163,000 | 1,200 | 19 | 22,500 |
| Emery | 2,000 | 800 | 151 | 120,500 | 1,200 | 18 | 21,000 |
| Grand | * | | | | * | * | * |
| San Juan | 800 | 100 | 110 | 11,000 | 500 | 17 | 8,500 |
| Summit | * | | | | | | |
| Uintah | 3,400 | 1,000 | 152 | 151,500 | 2,400 | 21 | 51,000 |
| Wasatch | * | | | | * | * | * |
| Other Counties | 400 | 100 | 100 | 10,000 | 200 | 20 | 4,000 |
| Total | 10,000 | 3,600 | 133 | 480,000 | 6,000 | 19 | 115,000 |
| ***Southern*** | | | | | | | |
| Beaver | 1,500 | | | | 1,500 | 22 | 33,000 |
| Garfield | | | | | | | |
| Iron | 700 | | | | 700 | 24 | 17,000 |
| Kane | | | | | | | |
| Piute | * | | | | * | * | * |
| Washington | * | | | | * | * | * |
| Wayne | * | | | | * | * | * |
| Other Counties | 800 | | | | 800 | 21 | 17,000 |
| Total | 3,000 | | | | 3,000 | 22 | 67,000 |
| ***State*** | | | | | | | |
| Total | 62,000 | 20,000 | 147 | 2,940,000 | 41,000 | 23 | 943,000 |

* Less than 500 acres planted for all purposes, combined with other counties.

1/ Acres harvested for grain and silage may not add to acres planted for all purposes due to abandonment.

## County Estimates: Corn, All Cropping Practices, Utah, 1998 1/

| District and County | Acres Planted All Purposes | Corn for Grain | | | Corn for Silage | | |
|---|---|---|---|---|---|---|---|
| | | Acres Harvested | Harvested Yield | Production | Acres Harvested | Harvested Yield | Production |
| | Acres | | Bushels | | Acres | Tons | |
| ***Northern*** | | | | | | | |
| Box Elder | 12,200 | 6,500 | 153 | 992,000 | 5,500 | 23 | 124,000 |
| Cache | 6,000 | 400 | 140 | 56,000 | 5,400 | 21 | 114,000 |
| Davis | 3,100 | 2,500 | 150 | 375,000 | 600 | 25 | 15,000 |
| Morgan | * | * | | | * | | |
| Rich | * | | | | | | |
| Salt Lake | 1,000 | 700 | 160 | 112,000 | 300 | 23 | 7,000 |
| Tooele | * | * | | | * | | |
| Weber | 4,100 | 1,300 | 140 | 182,000 | 2,800 | 22 | 61,000 |
| Other Counties | 600 | 100 | 140 | 14,000 | 400 | 20 | 8,000 |
| Total | 27,000 | 11,500 | 151 | 1,731,000 | 15,000 | 22 | 329,000 |
| ***Central*** | | | | | | | |
| Juab | 500 | 100 | 150 | 15,000 | 400 | 20 | 8,000 |
| Millard | 7,000 | 2,200 | 122 | 268,000 | 4,400 | 22 | 95,000 |
| Sanpete | 2,000 | 200 | 130 | 26,000 | 1,800 | 20 | 36,000 |
| Sevier | 3,800 | 700 | 134 | 94,000 | 3,000 | 21 | 64,000 |
| Utah | 9,700 | 4,800 | 140 | 672,000 | 4,900 | 21 | 104,000 |
| Total | 23,000 | 8,000 | 134 | 1,075,000 | 14,500 | 21 | 307,000 |
| ***Eastern*** | | | | | | | |
| Carbon | 700 | 300 | 120 | 36,000 | 400 | 15 | 6,000 |
| Daggett | * | * | | | | | |
| Duchesne | 2,400 | 1,600 | 120 | 192,000 | 800 | 18 | 14,000 |
| Emery | 1,500 | 800 | 140 | 112,000 | 700 | 17 | 12,000 |
| Grand | * | * | | | * | | |
| San Juan | 600 | 300 | 110 | 33,000 | 300 | 17 | 5,000 |
| Summit | | | | | | | |
| Uintah | 3,500 | 1,400 | 139 | 195,000 | 2,100 | 19 | 40,000 |
| Wasatch | * | | | | * | | |
| Other Counties | 300 | 100 | 100 | 10,000 | 200 | 20 | 4,000 |
| Total | 9,000 | 4,500 | 128 | 578,000 | 4,500 | 18 | 81,000 |
| ***Southern*** | | | | | | | |
| Beaver | 1,500 | | | | 1,500 | 21 | 31,000 |
| Garfield | | | | | | | |
| Iron | 600 | | | | 600 | 20 | 12,000 |
| Kane | * | | | | * | | |
| Piute | * | | | | * | | |
| Washington | * | | | | * | | |
| Wayne | * | | | | * | | |
| Other Counties | 900 | | | | 900 | 19 | 17,000 |
| Total | 3,000 | | | | 3,000 | 20 | 60,000 |
| ***State*** | | | | | | | |
| Total | 62,000 | 24,000 | 141 | 3,384,000 | 37,000 | 21 | 777,000 |

* Less than 500 acres planted for all purposes, combined with other counties.
1/ Acres harvested for grain and silage may not add to acres planted for all purposes due to abandonment.

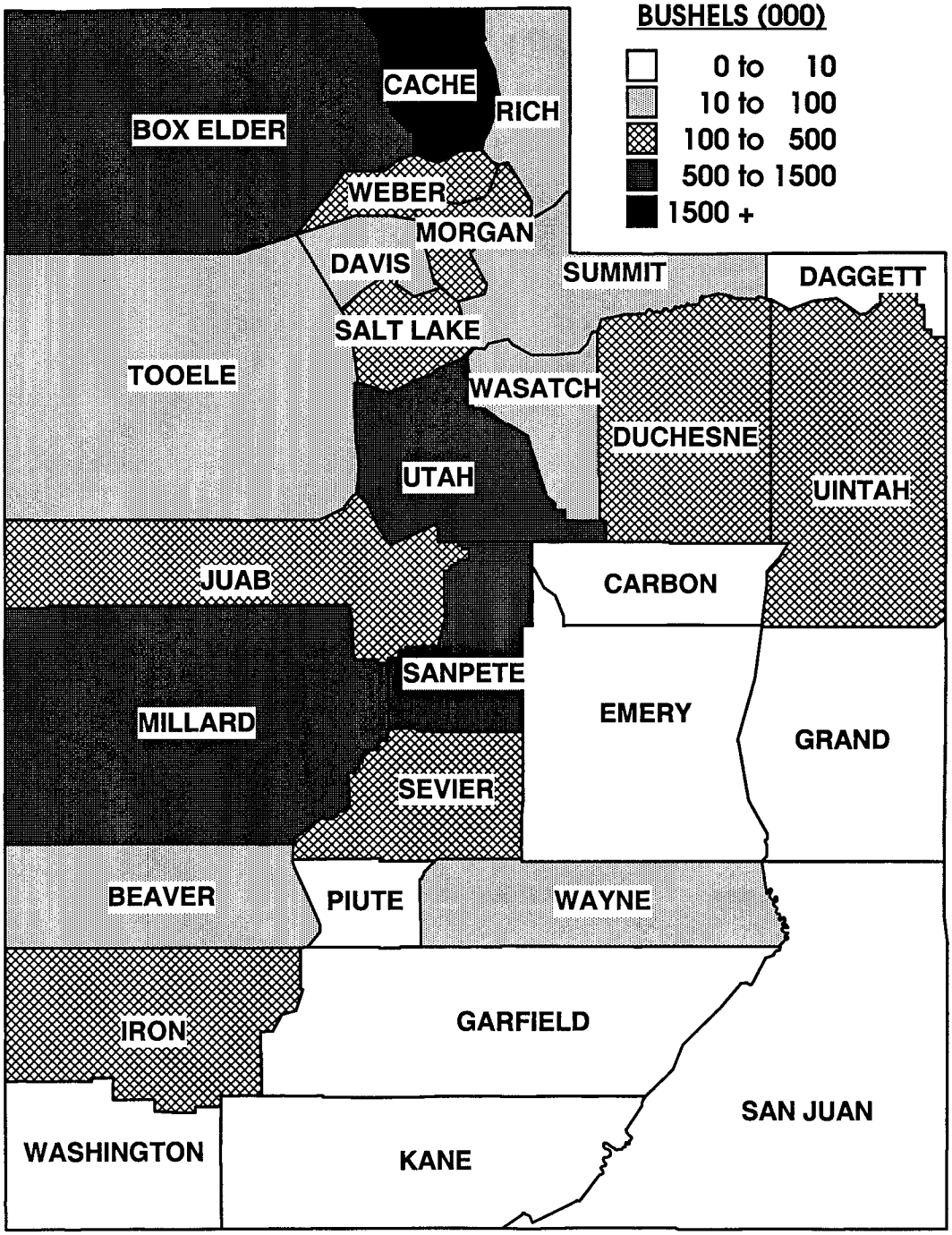
## County Estimates: All Barley, All Cropping Practices, Utah, 1997 (revised) & 1998

| District and County | Acres | | | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|---|---|
| | Planted | | Harvested | | 1997 | 1998 | 1997 | 1998 |
| | 1997 | 1998 | 1997 | 1998 | | | | |
| | Acres | | | | Bushels | | | |
| ***Northern*** | | | | | | | | |
| Box Elder | 13,000 | 12,200 | 12,200 | 11,400 | 90 | 87 | 1,098,000 | 990,000 |
| Cache | 30,000 | 28,000 | 29,600 | 26,300 | 76 | 74 | 2,235,000 | 1,940,000 |
| Davis | 1,000 | 1,000 | 1,000 | 900 | 95 | 97 | 95,000 | 87,000 |
| Morgan | 1,500 | 1,500 | 1,500 | 1,300 | 85 | 88 | 127,000 | 115,000 |
| Rich | 1,000 | 900 | 1,000 | 800 | 75 | 79 | 75,000 | 63,000 |
| Salt Lake | 3,000 | 3,000 | 3,000 | 2,500 | 72 | 74 | 215,000 | 185,000 |
| Tooele | 1,500 | 1,500 | 1,300 | 1,100 | 76 | 75 | 99,000 | 83,000 |
| Weber | 2,000 | 1,900 | 1,900 | 1,700 | 91 | 92 | 173,000 | 157,000 |
| Total | 53,000 | 50,000 | 51,500 | 46,000 | 80 | 79 | 4,117,000 | 3,620,000 |
| ***Central*** | | | | | | | | |
| Juab | 2,500 | 2,400 | 2,500 | 1,900 | 83 | 85 | 208,000 | 162,000 |
| Millard | 14,500 | 13,500 | 13,400 | 11,600 | 86 | 88 | 1,158,000 | 1,015,000 |
| Sanpete | 7,500 | 7,400 | 7,400 | 6,600 | 92 | 89 | 680,000 | 590,000 |
| Sevier | 2,500 | 2,500 | 2,400 | 2,000 | 95 | 95 | 229,000 | 189,000 |
| Utah | 9,000 | 8,700 | 8,800 | 7,900 | 95 | 92 | 835,000 | 729,000 |
| Total | 36,000 | 34,500 | 34,500 | 30,000 | 90 | 90 | 3,110,000 | 2,685,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | * | * | * |
| Daggett | | * | | * | | * | | * |
| Duchesne | 1,900 | 2,100 | 1,600 | 1,700 | 86 | 85 | 138,000 | 144,000 |
| Emery | * | * | * | * | * | * | * | * |
| Grand | | | | | | | | |
| San Juan | * | * | * | * | * | * | * | * |
| Summit | 600 | 600 | 500 | 500 | 72 | 74 | 36,000 | 37,000 |
| Uintah | 1,900 | 1,600 | 1,600 | 1,400 | 78 | 78 | 125,000 | 109,000 |
| Wasatch | 1,000 | 900 | 900 | 800 | 71 | 75 | 64,000 | 60,000 |
| Other Counties | 600 | 800 | 400 | 600 | 55 | 53 | 22,000 | 32,000 |
| Total | 6,000 | 6,000 | 5,000 | 5,000 | 77 | 76 | 385,000 | 382,000 |
| ***Southern*** | | | | | | | | |
| Beaver | 1,000 | 900 | 600 | 800 | 100 | 98 | 60,000 | 78,000 |
| Garfield | 500 | * | 500 | * | 90 | * | 45,000 | * |
| Iron | 2,500 | 2,100 | 2,100 | 1,900 | 90 | 91 | 190,000 | 173,000 |
| Kane | * | * | * | * | * | * | * | * |
| Piute | * | * | * | * | * | * | * | * |
| Washington | * | * | * | * | * | * | * | * |
| Wayne | 500 | 700 | 500 | 600 | 88 | 88 | 44,000 | 53,000 |
| Other Counties | 500 | 800 | 300 | 700 | 97 | 91 | 29,000 | 64,000 |
| Total | 5,000 | 4,500 | 4,000 | 4,000 | 92 | 92 | 368,000 | 368,000 |
| ***State*** | | | | | | | | |
| Total | 100,000 | 95,000 | 95,000 | 85,000 | 84 | 83 | 7,980,000 | 7,055,000 |

*Less than 500 planted acres, combined with other counties to avoid disclosure of individual operations.

# UTAH BARLEY PRODUCTION

## By County, 1998



## County Estimates: All Barley, by Cropping Practice, Utah, 1997 (revised)

| District and County | Irrigated | | | | Non-Irrigated | | | |
|---|---|---|---|---|---|---|---|---|
| | Acres | | Harvested Yield | Production | Acres | | Harvested Yield | Production |
| | Planted | Harvested | | | Planted | Harvested | | |
| | Acres | | Bushels | | Acres | | Bushels | |
| ***Northern*** | | | | | | | | |
| Box Elder | 9,300 | 8,800 | 108 | 948,000 | 3,600 | 3,400 | 44 | 150,000 |
| Cache | 19,300 | 18,900 | 92 | 1,735,000 | 10,700 | 10,700 | 47 | 500,000 |
| Davis | 900 | 900 | 102 | 92,000 | 100 | 100 | 30 | 3,000 |
| Morgan | 1,000 | 1,000 | 107 | 107,000 | 500 | 500 | 40 | 20,000 |
| Rich | 900 | 900 | 79 | 71,000 | 100 | 100 | 40 | 4,000 |
| Salt Lake | 1,300 | 1,200 | 109 | 131,000 | 1,800 | 1,800 | 47 | 84,000 |
| Tooele | 1,100 | 1,000 | 87 | 87,000 | 400 | 300 | 40 | 12,000 |
| Weber | 1,700 | 1,600 | 101 | 161,000 | 300 | 300 | 40 | 12,000 |
| Total | 35,500 | 34,300 | 97 | 3,332,000 | 17,500 | 17,200 | 46 | 785,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,900 | 1,900 | 97 | 185,000 | 600 | 600 | 38 | 23,000 |
| Millard | 14,300 | 13,200 | 87 | 1,150,000 | 200 | 200 | 40 | 8,000 |
| Sanpete | 7,100 | 7,000 | 95 | 665,000 | 400 | 400 | 38 | 15,000 |
| Sevier | 2,400 | 2,300 | 98 | 225,000 | 100 | 100 | 40 | 4,000 |
| Utah | 8,300 | 8,100 | 100 | 810,000 | 700 | 700 | 36 | 25,000 |
| Total | 34,000 | 32,500 | 93 | 3,035,000 | 2,000 | 2,000 | 38 | 75,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | * | | * | * |
| Daggett | | | | | | | | |
| Duchesne | 1,800 | 1,600 | 86 | 138,000 | 100 | | * | * |
| Emery | * | * | * | * | | | * | * |
| Grand | | | | | | | | |
| San Juan | * | * | | * | * | * | * | * |
| Summit | 500 | 400 | 83 | 33,000 | 100 | 100 | 30 | 3,000 |
| Uintah | 1,300 | 1,200 | 92 | 110,000 | 600 | 400 | 38 | 15,000 |
| Wasatch | 900 | 900 | 71 | 64,000 | 100 | * | * | * |
| Other Counties | 500 | 300 | 67 | 20,000 | 100 | 100 | 20 | 2,000 |
| Total | 5,000 | 4,400 | 83 | 365,000 | 1,000 | 600 | 33 | 20,000 |
| ***Southern*** | | | | | | | | |
| Beaver | 900 | 600 | 100 | 60,000 | 100 | * | * | * |
| Garfield | 500 | 500 | 90 | 45,000 | * | * | * | * |
| Iron | 2,400 | 2,100 | 90 | 190,000 | 100 | * | * | * |
| Kane | * | * | * | * | | | * | * |
| Piute | * | * | * | * | * | | * | * |
| Washington | * | * | * | * | * | * | * | * |
| Wayne | 400 | 400 | 100 | 40,000 | 100 | 100 | 40 | 4,000 |
| Other Counties | 300 | 200 | 125 | 25,000 | 200 | 100 | 40 | 4,000 |
| Total | 4,500 | 3,800 | 95 | 360,000 | 500 | 200 | 40 | 8,000 |
| **State** | | | | | | | | |
| Total | 79,000 | 75,000 | 95 | 7,092,000 | 21,000 | 20,000 | 44 | 888,000 |

*Less than 500 acres planted for all cropping practices combined with other counties.

## County Estimates: All Barley, by Cropping Practice, Utah, 1998

| District and County | Irrigated | | | | Non-Irrigated | | | |
|---|---|---|---|---|---|---|---|---|
| | Acres | | Harvested Yield | Production | Acres | | Harvested Yield | Production |
| | Planted | Harvested | | | Planted | Harvested | | |
| | Acres | | Bushels | | Acres | | Bushels | |
| ***Northern*** | | | | | | | | |
| Box Elder | 9,000 | 8,500 | 100 | 854,000 | 3,200 | 2,900 | 47 | 136,000 |
| Cache | 17,800 | 16,900 | 89 | 1,511,000 | 10,200 | 9,400 | 46 | 429,000 |
| Davis | 900 | 800 | 104 | 83,000 | 100 | 100 | 40 | 4,000 |
| Morgan | 1,000 | 900 | 108 | 97,000 | 500 | 400 | 45 | 18,000 |
| Rich | 800 | 800 | 79 | 63,000 | 100 | * | * | * |
| Salt Lake | 1,400 | 1,100 | 107 | 118,000 | 1,600 | 1,400 | 48 | 67,000 |
| Tooele | 1,000 | 800 | 89 | 71,000 | 500 | 300 | 40 | 12,000 |
| Weber | 1,700 | 1,500 | 99 | 148,000 | 200 | 200 | 45 | 9,000 |
| Total | 33,600 | 31,300 | 94 | 2,945,000 | 16,400 | 14,700 | 46 | 675,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,800 | 1,500 | 95 | 143,000 | 600 | 400 | 48 | 19,000 |
| Millard | 13,300 | 11,400 | 88 | 1,006,000 | 200 | 200 | 45 | 9,000 |
| Sanpete | 7,000 | 6,300 | 92 | 577,000 | 400 | 300 | 43 | 13,000 |
| Sevier | 2,300 | 1,900 | 97 | 185,000 | 200 | 100 | 40 | 4,000 |
| Utah | 8,000 | 7,300 | 96 | 701,000 | 700 | 600 | 47 | 28,000 |
| Total | 32,400 | 28,400 | 92 | 2,612,000 | 2,100 | 1,600 | 46 | 73,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | * | * | * | * | | | * | * |
| Daggett | | | | | | | | |
| Duchesne | 2,000 | 1,700 | 85 | 144,000 | 100 | * | * | * |
| Emery | * | * | * | * | * | | * | * |
| Grand | | | | | | | | |
| San Juan | * | * | * | * | * | * | * | * |
| Summit | 500 | 400 | 85 | 34,000 | 100 | 100 | 30 | 3,000 |
| Uintah | 1,100 | 1,100 | 88 | 97,000 | 500 | 300 | 40 | 12,000 |
| Wasatch | 700 | 700 | 80 | 56,000 | 200 | 100 | 40 | 4,000 |
| Other Counties | 600 | 600 | 53 | 32,000 | 200 | | | |
| Total | 4,900 | 4,500 | 81 | 363,000 | 1,100 | 500 | 38 | 19,000 |
| ***Southern*** | | | | | | | | |
| Beaver | 800 | 800 | 98 | 78,000 | 100 | | * | * |
| Garfield | * | * | * | * | * | * | * | * |
| Iron | 2,000 | 1,900 | 91 | 173,000 | 100 | * | * | * |
| Kane | * | * | * | * | | | * | * |
| Piute | * | * | * | * | * | | * | * |
| Washington | * | * | * | * | * | * | * | * |
| Wayne | 600 | 500 | 98 | 49,000 | 100 | 100 | 40 | 4,000 |
| Other Counties | 700 | 600 | 100 | 60,000 | 100 | 100 | 40 | 4,000 |
| Total | 4,100 | 3,800 | 95 | 360,000 | 400 | 200 | 40 | 8,000 |
| ***State*** | | | | | | | | |
| Total | 75,000 | 68,000 | 92 | 6,280,000 | 20,000 | 17,000 | 46 | 775,000 |

*Less than 500 acres planted for all cropping practices combined with other counties.

## County Estimates: Oats, All Cropping Practices, Utah, 1997(revised) & 1998

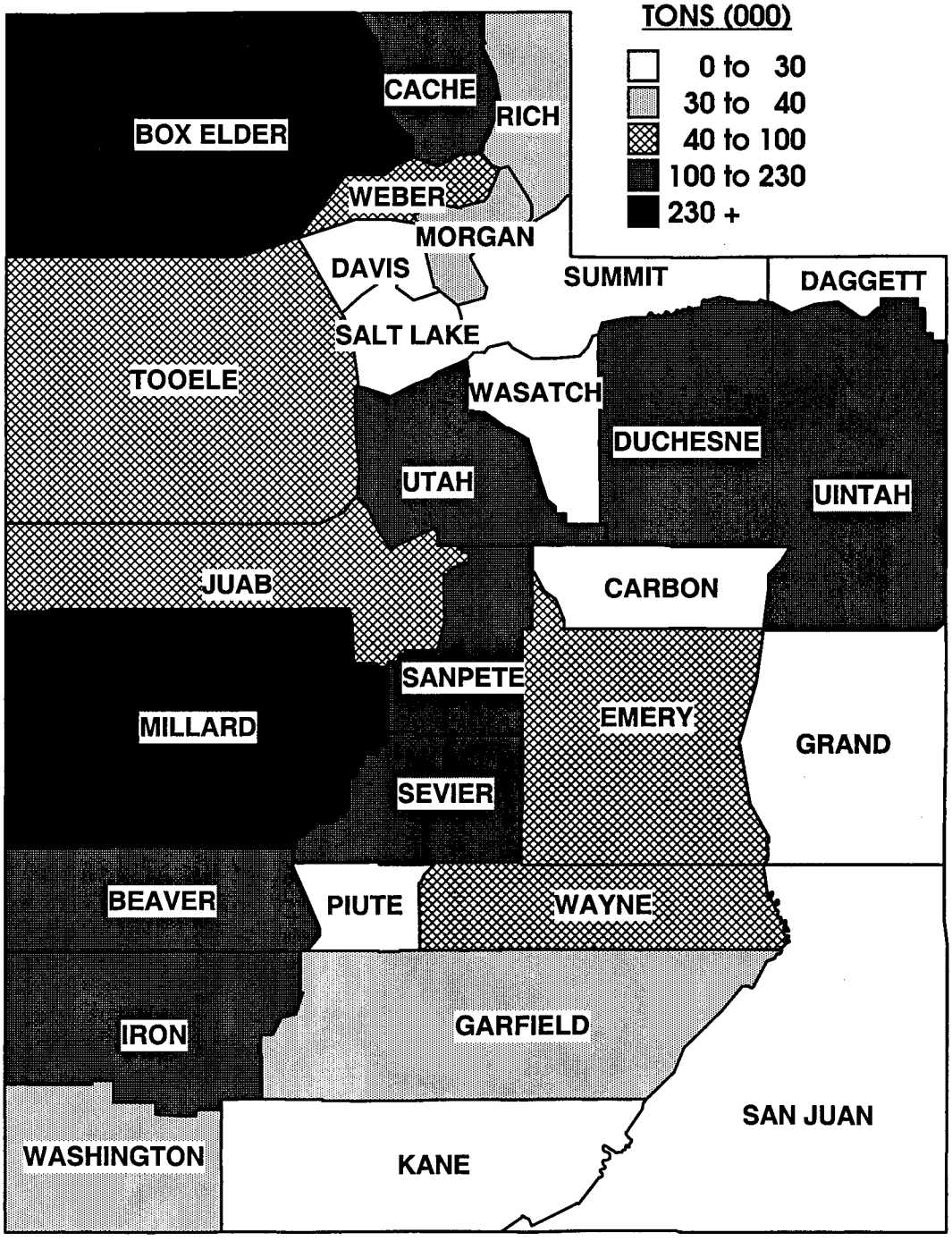
| District and County | Acres | | | | Harvested Yield per acre | | Production | |
|---|---|---|---|---|---|---|---|---|
| | Planted | | Harvested | | | | | |
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| | Acres | | | | Bushels | | | |
| ***Northern*** | | | | | | | | |
| Box Elder | 3,200 | 3,200 | 1,100 | 1,300 | 85 | 77 | 93,000 | 100,000 |
| Cache | 3,500 | 3,000 | 900 | 800 | 83 | 74 | 75,000 | 59,000 |
| Davis | 800 | 800 | 200 | 200 | 60 | 55 | 12,000 | 11,000 |
| Morgan | 800 | 1,000 | 200 | 200 | 90 | 80 | 18,000 | 16,000 |
| Rich | 1,100 | 1,100 | 300 | 200 | 83 | 75 | 25,000 | 15,000 |
| Salt Lake | 800 | 800 | 100 | 100 | 80 | 70 | 8,000 | 7,000 |
| Tooele | 700 | 1,000 | 100 | 100 | 50 | 50 | 5,000 | 5,000 |
| Weber | 1,100 | 1,100 | 600 | 500 | 90 | 80 | 54,000 | 40,000 |
| Total | 12,000 | 12,000 | 3,500 | 3,400 | 83 | 74 | 290,000 | 253,000 |
| ***Central*** | | | | | | | | |
| Juab | 1,000 | 1,000 | 100 | 100 | 60 | 60 | 6,000 | 6,000 |
| Millard | 5,500 | 5,400 | 700 | 400 | 89 | 85 | 62,000 | 34,000 |
| Sanpete | 4,000 | 3,500 | 600 | 600 | 67 | 73 | 40,000 | 44,000 |
| Sevier | 2,500 | 3,100 | 300 | 300 | 37 | 57 | 11,000 | 17,000 |
| Utah | 2,000 | 2,000 | 500 | 300 | 62 | 83 | 31,000 | 25,000 |
| Total | 15,000 | 15,000 | 2,200 | 1,700 | 68 | 74 | 150,000 | 126,000 |
| ***Eastern*** | | | | | | | | |
| Carbon | 500 | 600 | 100 | 100 | 80 | 80 | 8,000 | 8,000 |
| Daggett | | * | | * | | * | | * |
| Duchesne | 2,300 | 2,600 | 600 | 600 | 65 | 58 | 39,000 | 35,000 |
| Emery | 2,900 | 2,800 | 1,000 | 700 | 66 | 79 | 66,000 | 55,000 |
| Grand | * | * | * | | * | | * | |
| San Juan | 1,100 | 1,400 | 600 | 700 | 47 | 33 | 28,000 | 23,000 |
| Summit | 800 | 700 | 100 | 100 | 90 | 90 | 9,000 | 9,000 |
| Uintah | 2,600 | 2,000 | 800 | 800 | 68 | 75 | 54,000 | 60,000 |
| Wasatch | * | * | * | 100 | * | 70 | * | 7,000 |
| Other Counties | 800 | 900 | 100 | | 70 | | 7,000 | |
| Total | 11,000 | 11,000 | 3,300 | 3,100 | 64 | 64 | 211,000 | 197,000 |
| ***Southern*** | | | | | | | | |
| Beaver | 1,600 | 1,600 | 300 | 200 | 83 | 80 | 25,000 | 16,000 |
| Garfield | 2,000 | 1,700 | 100 | 100 | 50 | 60 | 5,000 | 6,000 |
| Iron | 4,200 | 4,300 | 200 | 200 | 60 | 55 | 12,000 | 11,000 |
| Kane | 800 | 900 | 100 | * | 50 | * | 5,000 | * |
| Piute | 1,100 | 1,300 | 100 | 100 | 90 | 80 | 9,000 | 8,000 |
| Washington | 900 | 900 | 100 | 100 | 60 | 60 | 6,000 | 6,000 |
| Wayne | 1,400 | 1,300 | 100 | 100 | 70 | 70 | 7,000 | 7,000 |
| Total | 12,000 | 12,000 | 1,000 | 800 | 69 | 68 | 69,000 | 54,000 |
| ***State*** | | | | | | | | |
| Total | 50,000 | 50,000 | 10,000 | 9,000 | 72 | 70 | 720,000 | 630,000 |

*Less than 500 planted acres, combined with other counties to avoid disclosure of individual operations.

## County Estimates: Alfalfa & Alfalfa Mixtures for Hay, All Cropping Practices
## Utah, 1997 (revised) & 1998

| District and County | Acres Harvested | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| | Acres | | Tons | | | |
| ***Northern*** | | | | | | |
| Box Elder | 52,900 | 52,800 | 4.7 | 4.6 | 249,200 | 244,000 |
| Cache | 55,000 | 53,700 | 3.9 | 3.9 | 212,200 | 210,000 |
| Davis | 6,300 | 6,200 | 4.6 | 4.7 | 29,200 | 29,000 |
| Morgan | 8,400 | 8,100 | 3.5 | 4.0 | 29,400 | 32,000 |
| Rich | 11,000 | 10,600 | 2.8 | 3.0 | 31,000 | 32,000 |
| Salt Lake | 6,200 | 6,600 | 4.5 | 4.2 | 27,800 | 28,000 |
| Tooele | 12,100 | 11,800 | 4.1 | 4.3 | 49,800 | 51,000 |
| Weber | 14,100 | 14,200 | 4.5 | 4.9 | 63,400 | 69,000 |
| Total | 166,000 | 164,000 | 4.2 | 4.2 | 692,000 | 695,000 |
| ***Central*** | | | | | | |
| Juab | 17,100 | 16,400 | 4.0 | 4.1 | 68,600 | 68,000 |
| Millard | 58,300 | 57,500 | 5.0 | 5.0 | 293,500 | 287,000 |
| Sanpete | 35,100 | 34,300 | 4.4 | 4.5 | 155,500 | 154,000 |
| Sevier | 23,200 | 24,300 | 4.6 | 4.8 | 106,700 | 117,000 |
| Utah | 28,300 | 29,500 | 4.5 | 4.7 | 127,700 | 138,000 |
| Total | 162,000 | 162,000 | 4.6 | 4.7 | 752,000 | 764,000 |
| ***Eastern*** | | | | | | |
| Carbon | 4,500 | 4,600 | 3.8 | 3.7 | 17,300 | 17,000 |
| Daggett | 3,500 | 3,100 | 3.3 | 3.5 | 11,600 | 11,000 |
| Duchesne | 36,300 | 37,500 | 4.0 | 4.0 | 144,600 | 149,000 |
| Emery | 15,300 | 15,200 | 3.7 | 3.8 | 56,600 | 57,000 |
| Grand | 2,500 | 2,100 | 4.3 | 4.8 | 10,800 | 10,000 |
| San Juan | 6,500 | 6,500 | 3.0 | 3.1 | 19,500 | 20,000 |
| Summit | 8,700 | 7,900 | 2.9 | 3.2 | 25,200 | 25,000 |
| Uintah | 30,400 | 29,300 | 4.5 | 4.5 | 136,400 | 133,000 |
| Wasatch | 6,300 | 5,800 | 3.5 | 4.3 | 22,000 | 25,000 |
| Total | 114,000 | 112,000 | 3.9 | 4.0 | 444,000 | 447,000 |
| ***Southern*** | | | | | | |
| Beaver | 22,600 | 24,500 | 4.6 | 4.8 | 104,600 | 117,000 |
| Garfield | 11,100 | 10,200 | 3.3 | 3.6 | 36,900 | 37,000 |
| Iron | 42,800 | 44,800 | 5.1 | 5.0 | 218,100 | 222,000 |
| Kane | 2,800 | 2,500 | 3.0 | 4.0 | 8,500 | 10,000 |
| Piute | 7,100 | 7,300 | 3.5 | 3.7 | 25,000 | 27,000 |
| Washington | 6,400 | 7,800 | 3.9 | 5.0 | 25,200 | 39,000 |
| Wayne | 10,200 | 9,900 | 3.7 | 4.0 | 37,700 | 40,000 |
| Total | 103,000 | 107,000 | 4.4 | 4.6 | 456,000 | 492,000 |
| ***State*** | | | | | | |
| Total | 545,000 | 545,000 | 4.3 | 4.4 | 2,344,000 | 2,398,000 |

# UTAH ALFALFA HAY PRODUCTION
## By County, 1998



## County Estimates: Other Hay, All Cropping Practices, Utah, 1997 (revised) & 1998

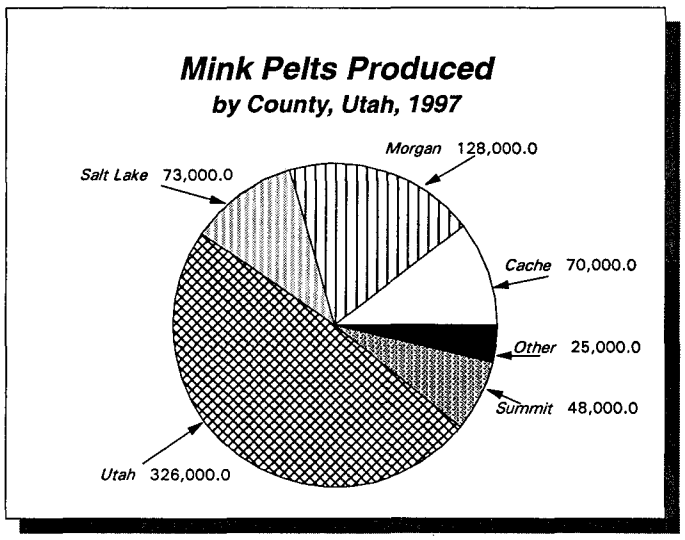
| District and County | Acres Harvested | | Harvested Yield | | Production | |
|---|---|---|---|---|---|---|
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| | Acres | | Tons | | | |
| ***Northern*** | | | | | | |
| Box Elder | 10,200 | 10,200 | 2.1 | 2.3 | 21,400 | 23,300 |
| Cache | 10,000 | 10,000 | 2.4 | 2.4 | 24,000 | 24,200 |
| Davis | 2,000 | 2,000 | 2.1 | 2.4 | 4,200 | 4,700 |
| Morgan | 1,800 | 1,700 | 2.0 | 2.4 | 3,600 | 4,100 |
| Rich | 40,500 | 39,300 | 1.7 | 1.8 | 69,900 | 71,300 |
| Salt Lake | 1,400 | 1,200 | 2.3 | 2.9 | 3,200 | 3,500 |
| Tooele | 2,500 | 2,800 | 2.0 | 2.1 | 5,100 | 5,900 |
| Weber | 3,100 | 3,300 | 2.1 | 2.4 | 6,600 | 8,000 |
| Total | 71,500 | 70,500 | 1.9 | 2.1 | 138,000 | 145,000 |
| ***Central*** | | | | | | |
| Juab | 4,300 | 4,000 | 1.5 | 1.8 | 6,600 | 7,000 |
| Millard | 5,900 | 5,400 | 2.3 | 2.7 | 13,800 | 14,400 |
| Sanpete | 12,900 | 12,000 | 2.3 | 2.4 | 30,300 | 28,800 |
| Sevier | 3,500 | 3,400 | 2.8 | 2.9 | 9,900 | 10,000 |
| Utah | 8,900 | 9,700 | 2.4 | 2.4 | 21,400 | 22,800 |
| Total | 35,500 | 34,500 | 2.3 | 2.4 | 82,000 | 83,000 |
| ***Eastern*** | | | | | | |
| Carbon | 1,300 | 1,200 | 1.9 | 2.2 | 2,500 | 2,600 |
| Daggett | 3,200 | 3,000 | 1.5 | 2.1 | 4,900 | 6,200 |
| Duchesne | 14,800 | 15,800 | 2.5 | 2.6 | 36,900 | 40,400 |
| Emery | 2,700 | 2,800 | 2.6 | 2.6 | 7,100 | 7,200 |
| Grand | 600 | 500 | 3.0 | 2.6 | 1,800 | 1,300 |
| San Juan | 1,400 | 1,400 | 2.6 | 2.3 | 3,700 | 3,200 |
| Summit | 11,000 | 9,900 | 2.2 | 2.4 | 24,300 | 24,000 |
| Uintah | 7,800 | 6,800 | 2.4 | 2.6 | 18,500 | 17,600 |
| Wasatch | 1,700 | 1,600 | 2.5 | 2.8 | 4,300 | 4,500 |
| Total | 44,500 | 43,000 | 2.3 | 2.5 | 104,000 | 107,000 |
| ***Southern*** | | | | | | |
| Beaver | 3,100 | 2,900 | 2.7 | 2.9 | 8,400 | 8,500 |
| Garfield | 2,900 | 2,700 | 2.2 | 2.2 | 6,500 | 6,000 |
| Iron | 4,800 | 4,500 | 3.3 | 3.0 | 15,800 | 13,500 |
| Kane | 1,000 | 1,000 | 1.8 | 1.8 | 1,800 | 1,800 |
| Piute | 2,900 | 2,300 | 2.5 | 2.6 | 7,300 | 6,000 |
| Washington | 2,100 | 2,000 | 2.6 | 2.4 | 5,400 | 4,800 |
| Wayne | 1,700 | 1,600 | 2.8 | 2.8 | 4,800 | 4,400 |
| Total | 18,500 | 17,000 | 2.7 | 2.6 | 50,000 | 45,000 |
| ***State*** | | | | | | |
| Total | 170,000 | 165,000 | 2.2 | 2.3 | 374,000 | 380,000 |

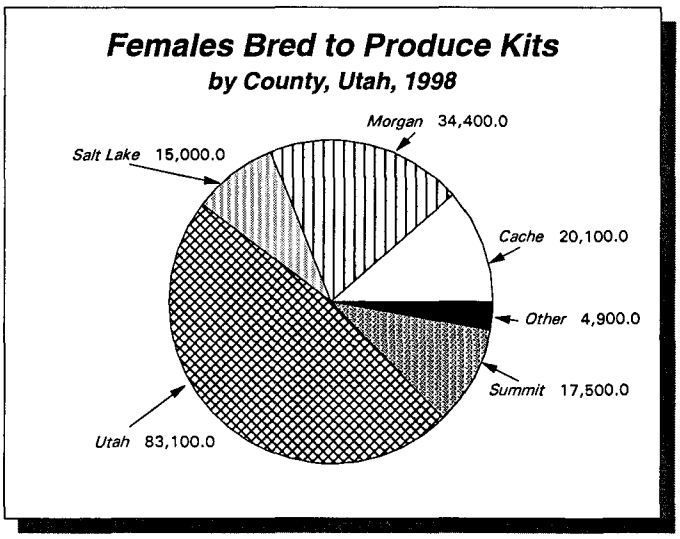
## County Estimates: All Hay, All Cropping Practices, Utah, 1997 (revised) & 1998

| District and County | Acres Harvested | | Harvested Yield per Acre | | Production | |
|---|---|---|---|---|---|---|
| | 1997 | 1998 | 1997 | 1998 | 1997 | 1998 |
| | Acres | | Tons | | | |
| ***Northern*** | | | | | | |
| Box Elder | 63,100 | 63,000 | 4.3 | 4.2 | 270,600 | 267,300 |
| Cache | 65,000 | 63,700 | 3.6 | 3.7 | 236,200 | 234,200 |
| Davis | 8,300 | 8,200 | 4.0 | 4.1 | 33,400 | 33,700 |
| Morgan | 10,200 | 9,800 | 3.2 | 3.7 | 33,000 | 36,100 |
| Rich | 51,500 | 49,900 | 2.0 | 2.1 | 100,900 | 104,000 |
| Salt Lake | 7,600 | 7,800 | 4.1 | 3.9 | 31,000 | 30,800 |
| Tooele | 14,600 | 14,600 | 3.8 | 3.9 | 54,900 | 56,900 |
| Weber | 17,200 | 17,500 | 4.1 | 4.4 | 70,000 | 77,000 |
| Total | 237,500 | 234,500 | 3.5 | 3.6 | 830,000 | 840,000 |
| ***Central*** | | | | | | |
| Juab | 21,400 | 20,400 | 3.5 | 3.7 | 75,200 | 75,000 |
| Millard | 64,200 | 62,900 | 4.8 | 4.8 | 307,300 | 301,400 |
| Sanpete | 48,000 | 46,300 | 3.9 | 3.9 | 185,800 | 182,800 |
| Sevier | 26,700 | 27,700 | 4.4 | 4.6 | 116,600 | 127,000 |
| Utah | 37,200 | 39,200 | 4.0 | 4.1 | 149,100 | 160,800 |
| Total | 197,500 | 196,500 | 4.2 | 4.3 | 834,000 | 847,000 |
| ***Eastern*** | | | | | | |
| Carbon | 5,800 | 5,800 | 3.4 | 3.4 | 19,800 | 19,600 |
| Daggett | 6,700 | 6,100 | 2.5 | 2.8 | 16,500 | 17,200 |
| Duchesne | 51,100 | 53,300 | 3.6 | 3.6 | 181,500 | 189,400 |
| Emery | 18,000 | 18,000 | 3.5 | 3.6 | 63,700 | 64,200 |
| Grand | 3,100 | 2,600 | 4.1 | 4.3 | 12,600 | 11,300 |
| San Juan | 7,900 | 7,900 | 2.9 | 2.9 | 23,200 | 23,200 |
| Summit | 19,700 | 17,800 | 2.5 | 2.8 | 49,500 | 49,000 |
| Uintah | 38,200 | 36,100 | 4.1 | 4.2 | 154,900 | 150,600 |
| Wasatch | 8,000 | 7,400 | 3.3 | 4.0 | 26,300 | 29,500 |
| Total | 158,500 | 155,000 | 3.5 | 3.6 | 548,000 | 554,000 |
| ***Southern*** | | | | | | |
| Beaver | 25,700 | 27,400 | 4.4 | 4.6 | 113,000 | 125,500 |
| Garfield | 14,000 | 12,900 | 3.1 | 3.3 | 43,400 | 43,000 |
| Iron | 47,600 | 49,300 | 4.9 | 4.8 | 233,900 | 235,500 |
| Kane | 3,800 | 3,500 | 2.7 | 3.4 | 10,300 | 11,800 |
| Piute | 10,000 | 9,600 | 3.2 | 3.4 | 32,300 | 33,000 |
| Washington | 8,500 | 9,800 | 3.6 | 4.5 | 30,600 | 43,800 |
| Wayne | 11,900 | 11,500 | 3.6 | 3.9 | 42,500 | 44,400 |
| Total | 121,500 | 124,000 | 4.2 | 4.3 | 506,000 | 537,000 |
| ***State*** | | | | | | |
| Total | 715,000 | 710,000 | 3.8 | 3.9 | 2,718,000 | 2,778,000 |

## County Estimates: Utah Mink Pelts Produced 1996-97
## Females Bred to Produce Kits 1997 (revised) and 1998

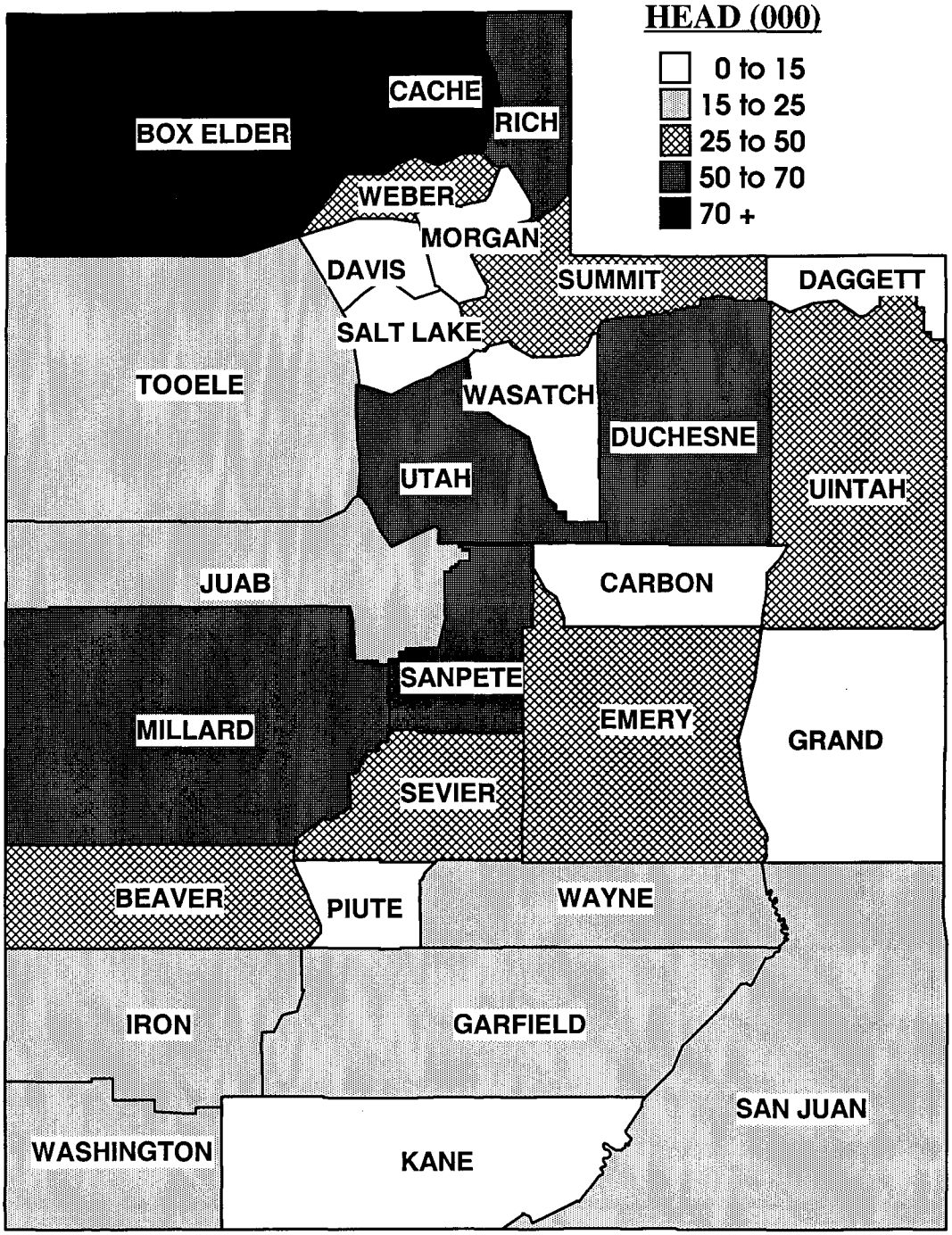
| District and County | Pelts Produced | | Females Bred to Produce Kits | |
|---|---|---|---|---|
| | 1996 | 1997 | 1997 | 1998 |
| | Number | | | |
| ***Northern*** | | | | |
| Cache | 69,000 | 70,000 | 20,300 | 20,100 |
| Morgan | 113,000 | 128,000 | 42,300 | 34,400 |
| Salt Lake | 58,000 | 73,000 | 19,200 | 15,000 |
| Other Counties | 20,000 | 10,000 | 5,200 | 2,800 |
| Total | 260,000 | 281,000 | 87,000 | 72,300 |
| ***Central*** | | | | |
| Utah | 254,000 | 326,000 | 74,000 | 83,100 |
| Other Counties | 8,000 | 13,000 | 2,000 | 2,100 |
| Total | 262,000 | 339,000 | 76,000 | 85,200 |
| ***Eastern*** | | | | |
| Summit | 61,000 | 48,000 | 21,500 | 17,500 |
| Other Counties | 2,000 | 2,000 | 500 | |
| Total | 63,000 | 50,000 | 22,000 | 17,500 |
| ***State*** | | | | |
| Total | 585,000 | 670,000 | 185,000 | 175,000 |



# UTAH ALL CATTLE INVENTORY

## By County, January 1, 1999



## County Estimates: Cattle, Utah, January 1, 1998 (revised) & 1999

| County | All Cattle | | Beef Cows | | Milk Cows 1/ | |
|---|---|---|---|---|---|---|
| | 1998 | 1999 | 1998 | 1999 | 1998 | 1999 |
| | Number | | | | | |
| ***Northern*** | | | | | | |
| Box Elder | 101,500 | 106,000 | 35,500 | 35,000 | 8,500 | 9,000 |
| Cache | 76,000 | 71,000 | 9,000 | 8,500 | 23,500 | 25,500 |
| Davis | 9,000 | 9,000 | 3,000 | 3,000 | 1,000 | 500 |
| Morgan | 11,000 | 10,000 | 4,500 | 4,000 | 1,500 | 1,500 |
| Rich | 53,000 | 56,000 | 31,500 | 29,500 | | |
| Salt Lake | 8,000 | 8,000 | 3,000 | 3,000 | 1,000 | 1,000 |
| Tooele | 20,000 | 22,000 | 12,500 | 12,000 | | |
| Weber | 28,500 | 28,000 | 5,000 | 5,000 | 6,000 | 6,000 |
| Other counties | | | | | 500 | 500 |
| Total | 307,000 | 310,000 | 104,000 | 100,000 | 42,000 | 44,000 |
| ***Central*** | | | | | | |
| Juab | 17,000 | 16,000 | 7,000 | 7,000 | | |
| Millard | 64,000 | 61,000 | 18,000 | 17,500 | 10,500 | 11,000 |
| Sanpete | 54,500 | 52,500 | 18,000 | 17,000 | 6,500 | 6,500 |
| Sevier | 45,500 | 44,000 | 11,500 | 11,000 | | |
| Utah | 65,000 | 61,500 | 19,500 | 18,500 | 8,500 | 9,000 |
| Other counties | | | | | 4,500 | 5,500 |
| Total | 246,000 | 235,000 | 74,000 | 71,000 | 30,000 | 32,000 |
| ***Eastern*** | | | | | | |
| Carbon | 10,000 | 10,000 | 6,000 | 5,500 | | |
| Daggett | 4,000 | 4,000 | 2,500 | 2,000 | | |
| Duchesne | 62,000 | 58,000 | 33,000 | 30,000 | 2,500 | 3,000 |
| Emery | 28,500 | 27,000 | 14,000 | 13,000 | | 1,000 |
| Grand | 4,000 | 3,000 | 2,000 | 2,000 | | |
| San Juan | 22,000 | 21,000 | 12,000 | 11,000 | | |
| Summit | 29,500 | 25,000 | 15,000 | 13,500 | 1,500 | 1,500 |
| Uintah | 50,500 | 48,000 | 27,000 | 24,500 | 1,500 | 1,500 |
| Wasatch | 9,500 | 9,000 | 2,500 | 2,500 | 1,500 | 1,500 |
| Other counties | | | | | 1,000 | 500 |
| Total | 220,000 | 205,000 | 114,000 | 104,000 | 8,000 | 9,000 |
| ***Southern*** | | | | | | |
| Beaver | 33,000 | 36,000 | 12,000 | 11,500 | 3,000 | 3,500 |
| Garfield | 21,500 | 21,000 | 11,500 | 11,000 | | |
| Iron | 22,000 | 22,000 | 9,500 | 9,000 | 3,000 | 2,500 |
| Kane | 10,500 | 10,000 | 6,500 | 6,000 | | |
| Piute | 11,500 | 11,000 | 5,000 | 5,000 | 2,000 | 2,000 |
| Washington | 17,500 | 18,000 | 9,500 | 9,000 | | |
| Wayne | 21,000 | 22,000 | 9,000 | 8,500 | 1,500 | 1,500 |
| Other counties | | | | | 500 | 500 |
| Total | 137,000 | 140,000 | 63,000 | 60,000 | 10,000 | 10,000 |
| ***State*** | | | | | | |
| Total | 910,000 | 890,000 | 355,000 | 335,000 | 90,000 | 95,000 |

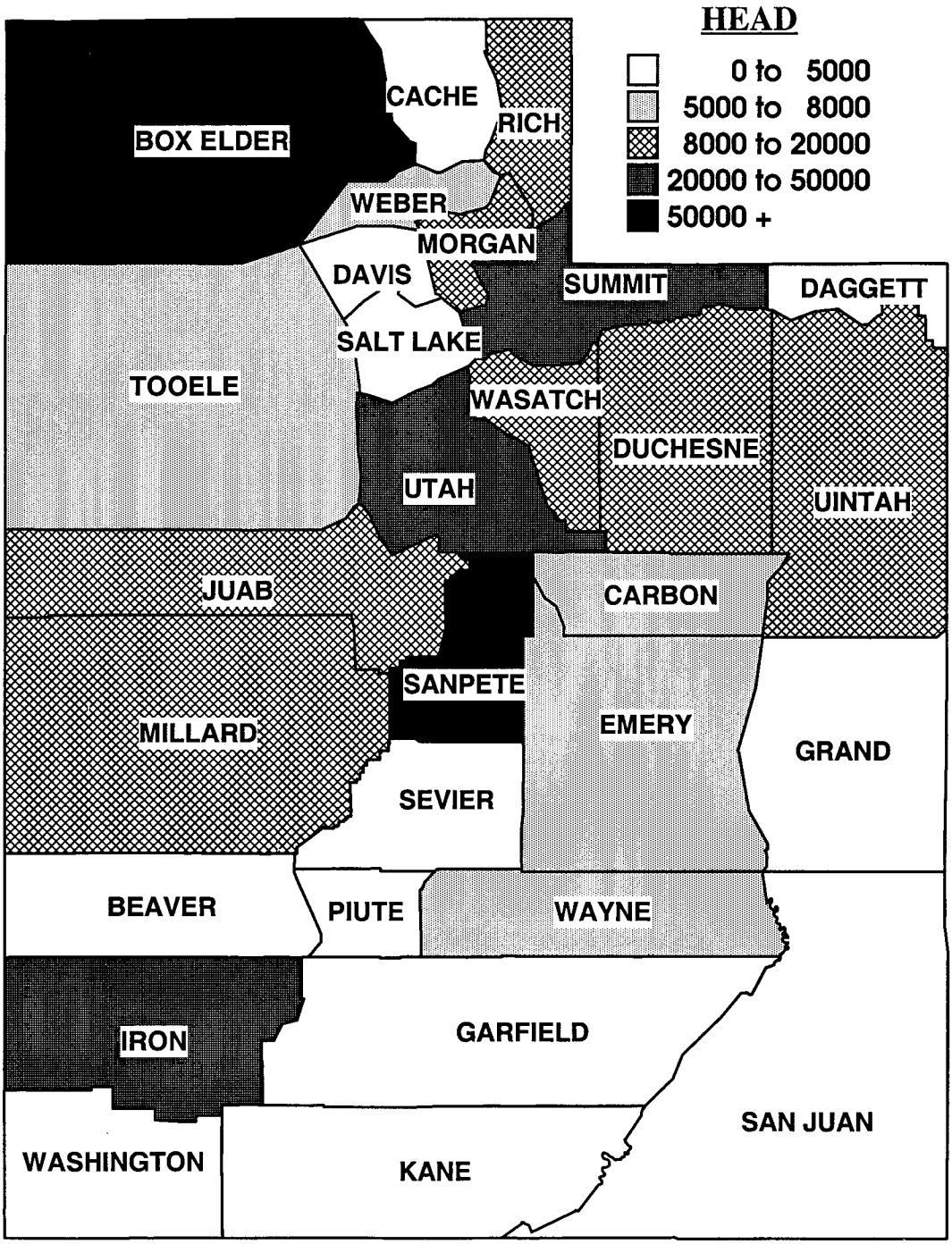
1/ Estimates rounded to the nearest 500. Counties with less than 500 milk cows rounded to zero but included in other counties for that district. Some counties with more than 500 milk cows combined under other counties to eliminate disclosure of smaller counties.

## County Estimates: Breeding Sheep and Lambs, Utah, January 1, 1998 (revised) & 1999

| District and County | 1998 | 1999 |
|---|---|---|
| | Number | |
| ***Northern*** | | |
| Box Elder | 61,500 | 58,500 |
| Cache | 4000 | 4,000 |
| Davis | 3,500 | 3,500 |
| Morgan | 16,500 | 15,500 |
| Rich | 10,000 | 9,500 |
| Salt Lake | 4,000 | 4,000 |
| Tooele | 6,500 | 6,500 |
| Weber | 7,000 | 6,500 |
| Total | 113,000 | 108,000 |
| ***Central*** | | |
| Juab | 10,000 | 9,500 |
| Millard | 8,500 | 8,000 |
| Sanpete | 62,000 | 59,000 |
| Sevier | 4,000 | 4,000 |
| Utah | 36,500 | 34,500 |
| Total | 121,000 | 115,000 |
| ***Eastern*** | | |
| Carbon | 7,500 | 7,000 |
| Daggett | 500 | 500 |
| Duchesne | 9,000 | 9,000 |
| Emery | 6,000 | 5,500 |
| Grand | 2,500 | 2,500 |
| San Juan | 2,000 | 2,000 |
| Summit | 37,000 | 32,500 |
| Uintah | 14,500 | 14,000 |
| Wasatch | 14,000 | 14,000 |
| Total | 93,000 | 87,000 |
| ***Southern*** | | |
| Beaver | | * |
| Garfield | 2,000 | 2,200 |
| Iron | 40,000 | 36,500 |
| Kane | 1,000 | 1,000 |
| Piute | 2,500 | 3,000 |
| Washington | | * |
| Wayne | 7,500 | 7,000 |
| Other counties | | 500 |
| Total | 53,000 | 50,000 |
| ***State*** | | |
| Total | 380,000 | 360,000 |

*less than 500 breeding sheep and lambs

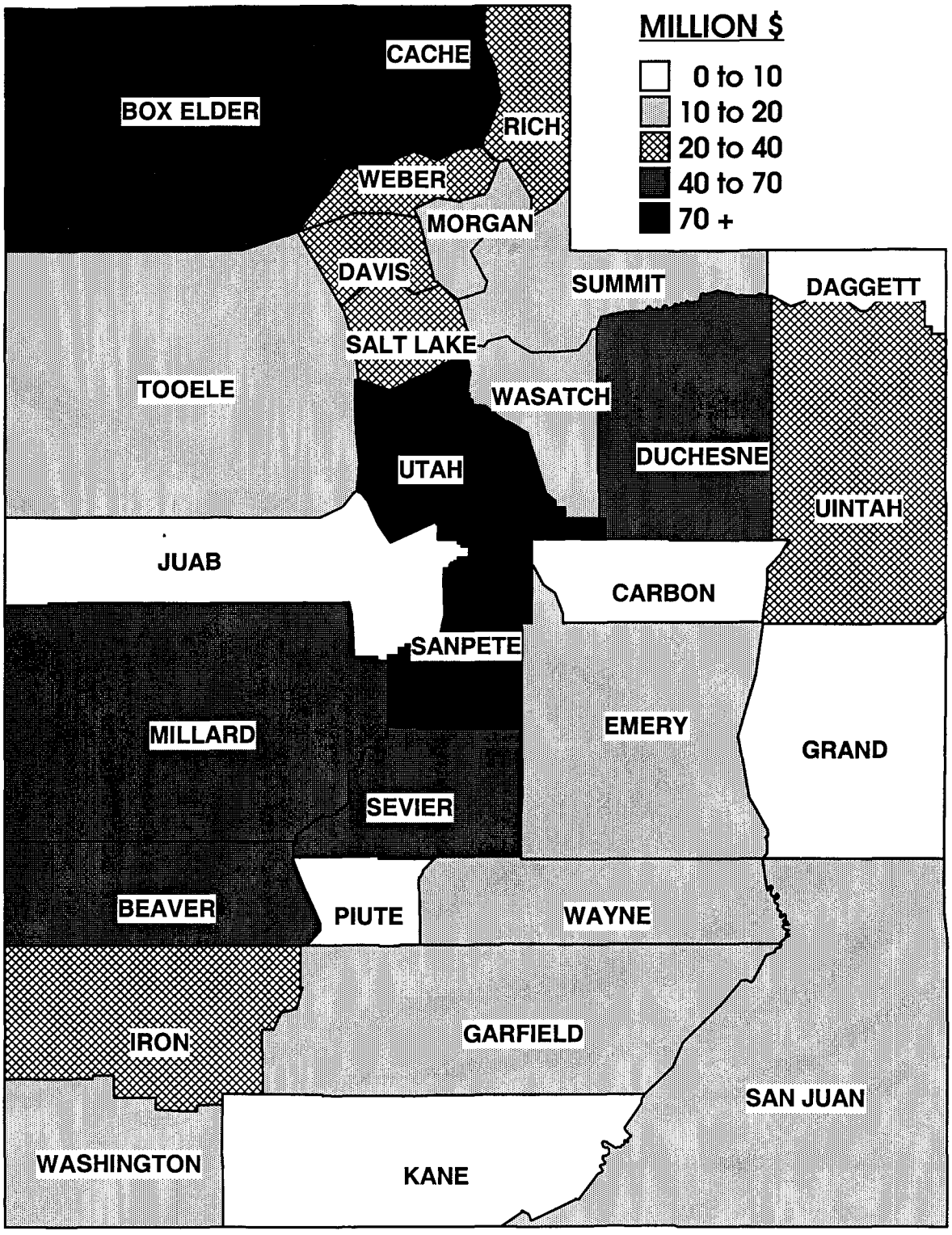
# UTAH BREEDING SHEEP INVENTORY
## By County, January 1, 1999



## County Estimates: Cash Receipts from Farming, by County - 1996 Revised, 1997 Preliminary

| District and County | Livestock and Livestock Products | | Crops | | Total | |
|---|---|---|---|---|---|---|
| | 1996 | 1997 | 1996 | 1997 | 1996 | 1997 |
| | Million Dollars | | | | | |
| ***Northern*** | | | | | | |
| Box Elder | 54.8 | 64.4 | 39.4 | 39.4 | 94.2 | 103.8 |
| Cache | 84.7 | 84.3 | 22.3 | 17.6 | 107.0 | 101.9 |
| Davis | 12.9 | 13.3 | 22.5 | 21.4 | 35.4 | 34.7 |
| Morgan | 12.7 | 11.3 | 1.7 | 2.0 | 14.4 | 13.3 |
| Rich | 17.0 | 18.4 | 3.6 | 4.5 | 20.6 | 22.9 |
| Salt Lake | 25.0 | 24.4 | 12.1 | 8.9 | 37.1 | 33.3 |
| Tooele | 9.7 | 12.1 | 3.7 | 3.4 | 13.4 | 15.5 |
| Weber | 26.9 | 29.4 | 7.2 | 6.7 | 34.1 | 36.1 |
| Total | 243.7 | 257.6 | 112.5 | 103.9 | 356.2 | 361.5 |
| ***Central*** | | | | | | |
| Juab | 5.4 | 5.7 | 4.6 | 4.2 | 10.0 | 9.9 |
| Millard | 35.3 | 37.8 | 24.0 | 25.3 | 59.3 | 63.1 |
| Sanpete | 74.4 | 77.1 | 6.7 | 9.6 | 81.1 | 86.7 |
| Sevier | 31.0 | 34.1 | 5.5 | 6.4 | 36.5 | 40.5 |
| Utah | 70.9 | 69.9 | 31.5 | 30.1 | 102.4 | 100.0 |
| Total | 217.0 | 224.6 | 72.3 | 75.6 | 289.3 | 300.2 |
| ***Eastern*** | | | | | | |
| Carbon | 3.9 | 4.1 | 0.8 | 1.0 | 4.7 | 5.1 |
| Daggett | 1.5 | 2.1 | 0.4 | 0.7 | 1.9 | 2.8 |
| Duchesne | 30.3 | 33.5 | 6.5 | 8.2 | 36.8 | 41.7 |
| Emery | 11.5 | 15.5 | 2.0 | 3.0 | 13.5 | 18.5 |
| Grand | 5.0 | 5.4 | 0.5 | 1.0 | 5.5 | 6.4 |
| San Juan | 7.5 | 8.4 | 2.0 | 4.9 | 9.5 | 13.3 |
| Summit | 14.8 | 13.5 | 1.2 | 2.0 | 16.0 | 15.5 |
| Uintah | 19.3 | 23.9 | 4.9 | 7.0 | 24.2 | 30.9 |
| Wasatch | 9.5 | 9.3 | 1.6 | 1.9 | 11.1 | 11.2 |
| Total | 103.3 | 115.7 | 19.9 | 29.7 | 123.2 | 145.4 |
| ***Southern*** | | | | | | |
| Beaver | 31.1 | 62.4 | 4.3 | 4.5 | 35.4 | 66.9 |
| Garfield | 7.0 | 8.6 | 1.2 | 1.9 | 8.2 | 10.5 |
| Iron | 11.2 | 13.0 | 10.1 | 14.6 | 21.3 | 27.6 |
| Kane | 3.8 | 4.8 | 0.4 | 0.5 | 4.2 | 5.3 |
| Piute | 8.2 | 7.8 | 1.1 | 1.6 | 9.3 | 9.4 |
| Washington | 8.5 | 9.7 | 4.1 | 3.8 | 12.6 | 13.5 |
| Wayne | 10.3 | 10.7 | 1.8 | 2.0 | 12.1 | 12.7 |
| Total | 80.1 | 117.0 | 23.0 | 28.9 | 103.1 | 145.9 |
| ***State*** | | | | | | |
| Total | 644.1 | 714.9 | 227.7 | 238.1 | 871.8 | 953.0 |

# UTAH CASH RECEIPTS FROM FARMING
## By County, 1997



## 1997 Census of Agriculture: Farms, Land in Farms, and Selected Items, by County, Utah 1/

| District and County | Number of Farms | Land in Farms | Average Size of Farms | Total Cropland | Harvested Cropland | Irrigated Land | Estimated Market Value of Land & Buildings | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Average per Farm | Average per Acre |
| | Number | Acres | | | | | Dollars | |
| ***Northern*** | | | | | | | | |
| Box Elder .. | 1,077 | 1,357,734 | 1,261 | 343,797 | 174,615 | 137,074 | 547,243 | 437 |
| Cache ..... | 1,232 | 266,374 | 216 | 177,117 | 119,910 | 93,008 | 329,665 | 1,742 |
| Davis ..... | 559 | 67,906 | 121 | 27,034 | 17,808 | 21,907 | 376,424 | 3,296 |
| Morgan .... | 243 | 179,246 | 738 | 21,609 | 14,696 | 8,836 | 690,752 | 941 |
| Rich ..... | 162 | 523,744 | 3,233 | 87,335 | 52,983 | 74,559 | 853,906 | 269 |
| Salt Lake .. | 593 | 113,912 | 192 | 40,035 | 20,319 | 14,647 | 431,460 | 2,092 |
| Tooele .... | 332 | 291,746 | 879 | 41,924 | 16,966 | 18,944 | 585,551 | 584 |
| Weber ..... | 936 | 81,352 | 87 | 39,661 | 26,473 | 32,651 | 328,193 | 2,210 |
| ***Central*** | | | | | | | | |
| Juab ..... | 228 | 275,632 | 1,209 | 66,400 | 29,998 | 22,236 | 547,154 | 467 |
| Millard ..... | 650 | 457,823 | 704 | 162,805 | 94,530 | 99,248 | 504,256 | 668 |
| Sanpete ... | 776 | 359,717 | 464 | 113,436 | 60,783 | 72,315 | 339,022 | 800 |
| Sevier ..... | 478 | 147,032 | 308 | 49,723 | 34,169 | 43,728 | 235,044 | 931 |
| Utah ..... | 1,790 | 374,933 | 209 | 149,920 | 86,976 | 81,168 | 433,198 | 2,244 |
| ***Eastern*** | | | | | | | | |
| Carbon .... | 199 | 201,679 | 1,013 | 17,200 | 6,060 | 10,588 | 611,966 | 586 |
| Daggett .... | 36 | 26,485 | 736 | 13,128 | 7,676 | 7,840 | 471,861 | 641 |
| Duchesne .. | 811 | 1,328,307 | 1,638 | 125,134 | 56,971 | 114,790 | 520,668 | 310 |
| Emery ..... | 450 | 158,798 | 353 | 53,303 | 20,922 | 41,198 | 220,169 | 683 |
| Grand ..... | 85 | 75,801 | 892 | 6,001 | 3,254 | 4,472 | 438,883 | 492 |
| San Juan .. | 231 | 1,673,079 | 7,243 | 150,143 | 53,772 | 9,078 | 1,786,989 | 241 |
| Summit .... | 476 | 589,528 | 1,239 | 40,345 | 20,435 | 28,429 | 740,266 | 603 |
| Uintah ..... | 795 | 2,268,090 | 2,853 | 90,524 | 44,954 | 83,939 | 695,186 | 244 |
| Wasatch ... | 294 | 106,142 | 361 | 16,569 | 9,295 | 15,424 | 563,657 | 1,544 |
| ***Southern*** | | | | | | | | |
| Beaver .... | 219 | 130,994 | 598 | 39,463 | 28,209 | 35,177 | 649,388 | 1,102 |
| Garfield .... | 285 | 121,381 | 426 | 36,386 | 14,565 | 25,406 | 358,522 | 762 |
| Iron ..... | 375 | 404,574 | 1,079 | 71,013 | 53,457 | 60,400 | 609,316 | 667 |
| Kane ..... | 143 | 175,384 | 1,226 | 15,224 | 3,210 | 7,198 | 625,669 | 508 |
| Piute ..... | 106 | 44,540 | 420 | 21,278 | 10,934 | 14,257 | 376,592 | 985 |
| Washington | 429 | 163,135 | 380 | 34,916 | 10,321 | 16,057 | 418,213 | 1,156 |
| Wayne .... | 191 | 59,593 | 312 | 18,328 | 13,667 | 17,627 | 319,677 | 1,080 |
| ***State*** | | | | | | | | |
| Total ..... | 14,181 | 12,024,661 | 848 | 2,069,751 | 1,107,928 | 1,212,201 | 486,235 | 575 |

1/ Source: 1997 Census of Agriculture, U.S. Department of Agriculture, National Agricultural Statistics Service.

## 1997 Census of Agriculture: Number of Farms by Value of Sales, by County, Utah 1/

| District and County | Under $2,500 | | $2,500 to $4,999 | | $5,000 to $9,999 | | $10,000 to $24,999 | | $25,000 to $49,999 | | $50,000 to $99,999 | | $100,000 Plus | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ |
| ***Northern*** | | | | | | | | | | | | | | |
| Box Elder ... | 261 | 24.2 | 110 | 10.2 | 124 | 11.5 | 169 | 15.7 | 111 | 10.3 | 104 | 9.7 | 198 | 18.4 |
| Cache ..... | 322 | 26.1 | 149 | 12.1 | 146 | 11.9 | 203 | 16.5 | 104 | 8.4 | 78 | 6.3 | 230 | 18.7 |
| Davis ..... | 231 | 41.3 | 83 | 14.8 | 69 | 12.3 | 74 | 13.2 | 31 | 5.5 | 18 | 3.2 | 53 | 9.5 |
| Morgan ..... | 65 | 26.7 | 28 | 11.5 | 38 | 15.6 | 37 | 15.2 | 13 | 5.4 | 22 | 9.1 | 40 | 16.5 |
| Rich ..... | 25 | 15.4 | 13 | 8.0 | 13 | 8.0 | 17 | 10.5 | 26 | 16.0 | 35 | 21.6 | 33 | 20.4 |
| Salt Lake ... | 260 | 43.8 | 93 | 15.7 | 70 | 11.8 | 66 | 11.1 | 33 | 5.6 | 26 | 4.4 | 45 | 7.6 |
| Tooele ..... | 124 | 37.3 | 30 | 9.0 | 55 | 16.6 | 45 | 13.6 | 36 | 10.8 | 20 | 6.0 | 22 | 6.6 |
| Weber ..... | 385 | 41.1 | 155 | 16.6 | 126 | 13.5 | 131 | 14.0 | 42 | 4.5 | 33 | 3.5 | 64 | 6.8 |
| ***Central*** | | | | | | | | | | | | | | |
| Juab ..... | 63 | 27.6 | 25 | 11.0 | 38 | 16.7 | 33 | 14.5 | 32 | 14.0 | 14 | 6.1 | 23 | 10.1 |
| Millard ..... | 104 | 16.0 | 52 | 8.0 | 63 | 9.7 | 124 | 19.1 | 108 | 16.6 | 69 | 10.6 | 130 | 20.0 |
| Sanpete .... | 174 | 22.4 | 91 | 11.7 | 113 | 14.6 | 125 | 16.1 | 88 | 11.3 | 45 | 5.8 | 140 | 18.0 |
| Sevier ..... | 124 | 25.9 | 53 | 11.1 | 60 | 12.6 | 98 | 20.5 | 51 | 10.7 | 34 | 7.1 | 58 | 12.1 |
| Utah ..... | 704 | 39.3 | 269 | 15.0 | 230 | 12.8 | 223 | 12.5 | 123 | 6.9 | 73 | 4.1 | 168 | 9.4 |
| ***Eastern*** | | | | | | | | | | | | | | |
| Carbon ..... | 87 | 43.7 | 19 | 9.5 | 30 | 15.1 | 31 | 15.6 | 10 | 5.0 | 13 | 6.5 | 9 | 4.5 |
| Daggett ..... | 3 | 8.3 | 7 | 19.4 | 3 | 8.3 | 6 | 16.7 | 9 | 25.0 | 4 | 11.1 | 4 | 11.1 |
| Duchesne ... | 179 | 22.1 | 102 | 12.6 | 118 | 14.6 | 169 | 20.8 | 98 | 12.1 | 72 | 8.9 | 73 | 9.0 |
| Emery ..... | 115 | 25.6 | 85 | 18.9 | 77 | 17.1 | 107 | 23.8 | 35 | 7.8 | 17 | 3.8 | 14 | 3.1 |
| Grand ..... | 33 | 38.8 | 9 | 10.6 | 7 | 8.2 | 10 | 11.8 | 12 | 14.1 | 9 | 10.6 | 5 | 5.9 |
| San Juan ... | 71 | 30.7 | 20 | 8.7 | 32 | 13.9 | 31 | 13.4 | 27 | 11.7 | 26 | 11.3 | 24 | 10.4 |
| Summit ..... | 150 | 31.5 | 66 | 13.9 | 70 | 14.7 | 79 | 16.6 | 46 | 9.7 | 22 | 4.6 | 43 | 9.0 |
| Uintah ..... | 216 | 27.2 | 130 | 16.4 | 134 | 16.9 | 142 | 17.9 | 85 | 10.7 | 48 | 6.0 | 40 | 5.0 |
| Wasatch .... | 114 | 38.8 | 52 | 17.7 | 41 | 13.9 | 41 | 13.9 | 16 | 5.4 | 7 | 2.4 | 23 | 7.8 |
| ***Southern*** | | | | | | | | | | | | | | |
| Beaver ..... | 28 | 12.8 | 24 | 11.0 | 25 | 11.4 | 32 | 14.6 | 22 | 10.0 | 30 | 13.7 | 58 | 26.5 |
| Garfield ..... | 57 | 20.0 | 36 | 12.6 | 53 | 18.6 | 58 | 20.4 | 39 | 13.7 | 30 | 10.5 | 12 | 4.2 |
| Iron ..... | 93 | 24.8 | 52 | 13.9 | 38 | 10.1 | 56 | 14.9 | 29 | 7.7 | 40 | 10.7 | 67 | 17.9 |
| Kane ..... | 40 | 28.0 | 22 | 15.4 | 27 | 18.9 | 22 | 15.4 | 17 | 11.9 | 7 | 4.9 | 8 | 5.6 |
| Piute ..... | 7 | 6.6 | 8 | 7.5 | 14 | 13.2 | 32 | 30.2 | 11 | 10.4 | 19 | 17.9 | 15 | 14.2 |
| Washington . | 158 | 36.8 | 63 | 14.7 | 67 | 15.6 | 70 | 16.3 | 38 | 8.9 | 16 | 3.7 | 17 | 4.0 |
| Wayne ..... | 33 | 17.3 | 21 | 11.0 | 23 | 12.0 | 39 | 20.4 | 36 | 18.8 | 18 | 9.4 | 21 | 11.0 |
| ***State*** | | | | | | | | | | | | | | |
| Total ..... | 4,226 | 29.8 | 1,867 | 13.2 | 1,904 | 13.4 | 2,270 | 16.0 | 1,328 | 9.4 | 949 | 6.7 | 1,637 | 11.5 |

1/ Source: 1997 Census of Agriculture, U.S. Department of Agriculture, National Agricultural Statistics Service. 2/ Percent of total farms for counties and percent of total farms for state. Percents may not add to 100.0 due to rounding.

## 1997 Census of Agriculture: Number of Farms by Total Land in Farms, by County, Utah 1/

| District and County | 1 - 9 Acres | | 10 - 49 Acres | | 50 - 179 Acres | | 180 - 499 Acres | | 500 - 999 Acres | | 1,000 Plus Acres | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ | Farms | % 2/ |
| ***Northern*** | | | | | | | | | | | | |
| Box Elder ..... | 157 | 14.6 | 240 | 22.3 | 232 | 21.5 | 160 | 14.9 | 104 | 9.7 | 184 | 17.1 |
| Cache ..... | 189 | 15.3 | 330 | 26.8 | 373 | 30.3 | 223 | 18.1 | 68 | 5.5 | 49 | 4.0 |
| Davis ..... | 209 | 37.4 | 207 | 37.0 | 77 | 13.8 | 49 | 8.8 | 15 | 2.7 | 2 | 0.4 |
| Morgan ..... | 43 | 17.7 | 91 | 37.4 | 45 | 18.5 | 19 | 7.8 | 18 | 7.4 | 27 | 11.1 |
| Rich ..... | 13 | 8.0 | 20 | 12.3 | 21 | 13.0 | 22 | 13.6 | 28 | 17.3 | 58 | 35.8 |
| Salt Lake ..... | 296 | 49.9 | 172 | 29.0 | 72 | 12.1 | 30 | 5.1 | 6 | 1.0 | 17 | 2.9 |
| Tooele ..... | 58 | 17.5 | 77 | 23.2 | 70 | 21.1 | 50 | 15.1 | 27 | 8.1 | 50 | 15.1 |
| Weber ..... | 299 | 31.9 | 392 | 41.9 | 157 | 16.8 | 68 | 7.3 | 12 | 1.3 | 8 | 0.9 |
| ***Central*** | | | | | | | | | | | | |
| Juab ..... | 13 | 5.7 | 39 | 17.1 | 55 | 24.1 | 47 | 20.6 | 23 | 10.1 | 51 | 22.4 |
| Millard ..... | 56 | 8.6 | 94 | 14.5 | 150 | 23.1 | 153 | 23.5 | 72 | 11.1 | 125 | 19.2 |
| Sanpete ..... | 76 | 9.8 | 195 | 25.1 | 219 | 28.2 | 142 | 18.3 | 75 | 9.7 | 69 | 8.9 |
| Sevier ..... | 66 | 13.8 | 146 | 30.5 | 147 | 30.8 | 75 | 15.7 | 19 | 4.0 | 25 | 5.2 |
| Utah ..... | 537 | 30.0 | 684 | 38.2 | 317 | 17.7 | 136 | 7.6 | 54 | 3.0 | 62 | 3.5 |
| ***Eastern*** | | | | | | | | | | | | |
| Carbon ..... | 35 | 17.6 | 61 | 30.7 | 46 | 23.1 | 21 | 10.6 | 7 | 3.5 | 29 | 14.6 |
| Daggett ..... | 2 | 5.6 | 1 | 2.8 | 10 | 27.8 | 10 | 27.8 | 4 | 11.1 | 9 | 25.0 |
| Duchesne ..... | 64 | 7.9 | 176 | 21.7 | 246 | 30.3 | 181 | 22.3 | 74 | 9.1 | 70 | 8.6 |
| Emery ..... | 36 | 8.0 | 116 | 25.8 | 128 | 28.4 | 84 | 18.7 | 52 | 11.6 | 34 | 7.6 |
| Grand ..... | 23 | 27.1 | 22 | 25.9 | 13 | 15.3 | 14 | 16.5 | 2 | 2.4 | 11 | 12.9 |
| San Juan ..... | 8 | 3.5 | 21 | 9.1 | 36 | 15.6 | 39 | 16.9 | 29 | 12.6 | 98 | 42.4 |
| Summit ..... | 77 | 16.2 | 145 | 30.5 | 108 | 22.7 | 51 | 10.7 | 34 | 7.1 | 61 | 12.8 |
| Uintah ..... | 81 | 10.2 | 249 | 31.3 | 224 | 28.2 | 117 | 14.7 | 49 | 6.2 | 75 | 9.4 |
| Wasatch ..... | 52 | 17.7 | 127 | 43.2 | 73 | 24.8 | 25 | 8.5 | 8 | 2.7 | 9 | 3.1 |
| ***Southern*** | | | | | | | | | | | | |
| Beaver ..... | 16 | 7.3 | 52 | 23.7 | 54 | 24.7 | 50 | 22.8 | 20 | 9.1 | 27 | 12.3 |
| Garfield ..... | 20 | 7.0 | 66 | 23.2 | 80 | 28.1 | 65 | 22.8 | 29 | 10.2 | 25 | 8.8 |
| Iron ..... | 41 | 10.9 | 79 | 21.1 | 69 | 18.4 | 57 | 15.2 | 37 | 9.9 | 92 | 24.5 |
| Kane ..... | 12 | 8.4 | 18 | 12.6 | 23 | 16.1 | 28 | 19.6 | 10 | 7.0 | 52 | 36.4 |
| Piute ..... | 4 | 3.8 | 9 | 8.5 | 27 | 25.5 | 40 | 37.7 | 17 | 16.0 | 9 | 8.5 |
| Washington ... | 86 | 20.0 | 115 | 26.8 | 93 | 21.7 | 49 | 11.4 | 43 | 10.0 | 43 | 10.0 |
| Wayne ..... | 21 | 11.0 | 34 | 17.8 | 80 | 41.9 | 37 | 19.4 | 9 | 4.7 | 10 | 5.2 |
| ***State*** | | | | | | | | | | | | |
| Total ..... | 2,590 | 18.3 | 3,978 | 28.1 | 3,245 | 22.9 | 2,042 | 14.4 | 945 | 6.7 | 1,381 | 9.7 |

1/ Source: 1997 Census of Agriculture, U.S. Department of Agriculture, National Agricultural Statistics Service. 2/ Percent of total farms for counties and percent of total farms for state. Percents may not add to 100.0 due to rounding.

# Weather

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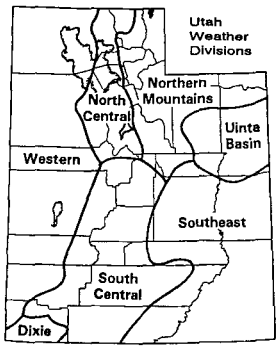



## Weather Data

The tables below provide summary climate information for 1998 in comparison to normal. The first table shows precipitation for each of the seven climatic divisions as a percent of normal, and the second table shows temperature for each division as a departure from normal. The areas covered by each climatic division can be determined by referring to the map at the right.

## Precipitation Summary

All divisions concluded the year with above normal precipitation, ranging from 113 percent of normal in the Southeast and Northern Mountains divisions to 165 percent of normal in the Western Division. February was well above normal with all divisions except the Northern Mountains reporting over 200 percent of normal for the month, and June was also very wet with 400 percent of normal in the Northern Mountains and percentages above 200 percent of normal for all divisions except the Southeast. December was well below normal with percentages between 4 and 60 percent of normal for the month. The new water year started strong with percentages near normal or above normal in most divisions in October and November.

### Precipitation: Percent of Normal, by Climate Division, 1998

| Division | Month | | | | | | | | | | | | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Western | 98 | 321 | 179 | 125 | 146 | 212 | 198 | 101 | 248 | 183 | 86 | 56 | 165 |
| Dixie | 84 | 261 | 78 | 225 | 124 | 212 | 205 | 48 | 399 | 247 | 117 | 4 | 150 |
| N. Central | 205 | 239 | 119 | 111 | 132 | 318 | 98 | 99 | 68 | 106 | 58 | 60 | 131 |
| S. Central | 99 | 228 | 97 | 110 | 63 | 265 | 154 | 54 | 223 | 212 | 99 | 53 | 130 |
| N. Mountains | 178 | 147 | 94 | 100 | 123 | 413 | 92 | 103 | 73 | 97 | 70 | 43 | 118 |
| Uintah Basin | 78 | 233 | 139 | 55 | 29 | 224 | 158 | 162 | 74 | 154 | 108 | 60 | 121 |
| Southeast | 57 | 272 | 93 | 133 | 55 | 95 | 107 | 31 | 151 | 216 | 117 | 28 | 113 |

## Temperature Summary

Temperatures were well above normal in January with departures ranging from about 4 degrees in Dixie to nearly 13 degrees in the Uintah Basin. Summer started with generally cool temperatures. In May temperatures were near or below normal, and temperatures remained generally cool in June with temperatures between 4 and 6 degrees below normal.

### Mean Temperature: Departure from Normal (°F), by Climate Division, 1998

| Division | Month | | | | | | | | | | | | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
| Western | 8.3 | 1.7 | -0.2 | -2.9 | -3.9 | -5.6 | 0.9 | 2.1 | 2.1 | -1.7 | 1.7 | -0.3 | -0.2 |
| Dixie | 4.4 | -1.6 | 1.2 | -3.1 | -2.4 | -3.8 | 1.1 | 4.0 | 0.5 | -1.4 | -0.3 | 1.6 | 0.0 |
| N. Central | 8.9 | 4.4 | -0.3 | -1.4 | 0.0 | -5.5 | 2.8 | 2.1 | 4.3 | -0.2 | 3.0 | -0.3 | 1.5 |
| S. Central | 6.3 | 0.0 | 0.6 | -2.2 | -0.6 | -3.9 | 1.2 | 1.3 | 1.3 | -1.9 | 1.0 | -0.9 | -0.3 |
| N. Mountains | 4.5 | 4.5 | -4.4 | 1.0 | -3.1 | -5.9 | 4.4 | 0.6 | 1.6 | 0.3 | 2.0 | 2.3 | 1.1 |
| Uintah Basin | 12.5 | 9.3 | 2.5 | -0.8 | 0.8 | -4.8 | 2.2 | 1.4 | 4.8 | 1.1 | 3.5 | -1.4 | 2.7 |
| Southeast | 8.7 | 2.6 | 1.2 | -1.2 | 0.8 | -2.4 | 3.6 | 3.3 | 4.4 | 0.1 | 1.6 | 0.7 | 2.1 |

## Mean Monthly Temperature (°F), Utah, 1998

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 35.0 | 36.3 | 41.4 | 47.0 | 55.8 | 62.0 | 75.8 | 73.9 | 65.8 | 48.2 | 40.5 | 27.1 | 50.7 |
| Delta | 34.9 | 35.7 | 41.5 | 46.8 | 55.8 | 61.9 | 77.1 | 75.7 | 66.0 | 49.9 | 39.4 | 23.2 | 50.7 |
| Enterprise Beryl Jct | 34.5 | 32.4 | 38.5 | 41.8 | 47.4 | 59.0 | 70.4 | M | 60.2 | M | 37.3 | 26.3 | 44.8 |
| Eskdale | 36.6 | 34.6 | 40.0 | 46.6 | 56.1 | 63.0 | 75.4 | 73.7 | 64.8 | 48.6 | 41.4 | 26.2 | 50.6 |
| Modena | 35.4 | 33.4 | 40.0 | 43.6 | 51.5 | 60.3 | 72.9 | 72.3 | 62.2 | 48.3 | 39.6 | 29.9 | 49.1 |
| Rosette | 29.9 | 30.3 | 35.5 | 41.6 | 49.6 | 54.8 | 72.1 | 70.1 | 62.1 | 46.4 | 35.5 | 24.6 | 46.0 |
| ***Average*** | **34.4** | **33.8** | **39.5** | **44.6** | **52.7** | **60.2** | **74.0** | **73.1** | **63.5** | **48.3** | **39.0** | **26.2** | **48.7** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 45.0 | 46.3 | 53.7 | 58.0 | 67.7 | 76.2 | 87.3 | 88.1 | 75.9 | 62.4 | 50.1 | 42.8 | 62.8 |
| Zion Nat'l Park | 44.3 | 42.0 | 51.3 | 53.8 | 64.6 | 72.9 | 84.5 | 84.8 | 74.2 | 61.3 | 49.2 | 42.2 | 60.4 |
| ***Average*** | **44.7** | **44.2** | **52.5** | **55.9** | **66.2** | **74.6** | **85.9** | **86.5** | **75.1** | **61.9** | **49.7** | **42.5** | **61.6** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 36.8 | 37.4 | 42.1 | 48.8 | 58.7 | 62.2 | 78.0 | 74.4 | 69.4 | 53.2 | 43.7 | 30.6 | 52.9 |
| Logan USU | 31.9 | 33.2 | 36.7 | 45.2 | 54.7 | 59.1 | 76.4 | 74.0 | 66.1 | 49.7 | 40.0 | 24.6 | 49.3 |
| Ogden Pioneer PH | 34.3 | 36.1 | 40.2 | 48.2 | 57.9 | 61.8 | 79.0 | 76.3 | 68.5 | 51.6 | 42.4 | 29.7 | 52.2 |
| Pleasant Grove | 36.5 | 35.9 | 42.1 | 48.1 | 58.2 | 62.3 | 77.0 | 74.3 | 67.0 | 51.6 | 43.1 | 30.1 | 52.2 |
| Provo BYU | 37.9 | 37.9 | 43.7 | 49.7 | 60.8 | 64.5 | 78.9 | 76.5 | 69.0 | 53.5 | 44.0 | 30.8 | 53.9 |
| SLC Airport NWSFO | 37.9 | 37.5 | 40.4 | 48.1 | 58.6 | 62.5 | 79.7 | 77.6 | 68.1 | 51.0 | 42.8 | 29.5 | 52.8 |
| Tooele | 37.5 | 36.7 | 42.0 | 48.2 | 58.8 | 62.1 | 79.7 | 76.6 | 66.5 | 50.7 | 42.6 | 30.5 | 52.7 |
| Tremonton | 33.8 | 36.2 | 39.2 | 47.2 | 56.1 | 61.4 | 75.5 | 74.9 | 67.3 | 51.0 | 39.8 | 25.8 | 50.7 |
| Trenton | 29.3 | 33.3 | 35.6 | 43.8 | 53.0 | 58.0 | 73.5 | 70.3 | 63.6 | 47.8 | 38.2 | 20.8 | 47.3 |
| ***Average*** | **35.1** | **36.0** | **40.2** | **47.5** | **57.4** | **61.5** | **77.5** | **75.0** | **67.3** | **51.1** | **41.8** | **28.0** | **51.5** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 24.8 | 21.7 | 28.6 | 34.5 | 45.0 | 51.9 | 63.8 | 61.7 | 52.6 | 39.8 | 31.1 | 23.9 | 40.0 |
| Cedar City FAA | 35.7 | 34.5 | 40.5 | 44.5 | 54.4 | 60.4 | 72.7 | 72.3 | 62.2 | 47.4 | 38.2 | 27.0 | 49.2 |
| Escalante | 34.8 | 34.0 | 42.2 | 46.8 | 56.7 | 63.9 | 75.2 | 73.5 | 64.0 | 50.9 | 40.4 | 32.7 | 51.3 |
| Fillmore | 36.6 | 34.5 | 41.8 | 46.1 | 56.3 | 61.3 | 74.7 | 73.1 | 63.9 | 48.3 | 41.0 | 27.2 | 50.4 |
| Kanab | 37.2 | 36.8 | 44.3 | 47.6 | 55.7 | 64.2 | 75.0 | 75.0 | 65.8 | 53.2 | 43.1 | 36.7 | 52.9 |
| Koosharem | 29.5 | 26.3 | 33.0 | 38.6 | M | M | M | 64.5 | 56.9 | 43.9 | 35.2 | 24.4 | 39.1 |
| Levan | 33.9 | 33.5 | 40.0 | 44.9 | 54.8 | 60.2 | 73.3 | 71.8 | 64.3 | 49.8 | 40.6 | 26.4 | 49.5 |
| Manti | 32.7 | 31.5 | 39.1 | 43.8 | 54.1 | 58.5 | 72.1 | 69.8 | 62.8 | 48.5 | 39.3 | 26.5 | 48.2 |
| Nephi | 35.2 | 34.9 | 41.1 | 46.3 | 57.0 | 61.8 | 75.2 | 72.8 | 65.6 | 50.8 | 42.2 | 28.3 | 50.9 |
| Panguitch | 29.9 | 30.1 | 36.5 | 41.5 | 51.9 | 58.6 | 69.8 | 68.3 | 59.2 | 45.5 | 36.3 | 26.4 | 46.2 |
| Richfield Radio KSVC | 35.0 | 34.8 | 40.9 | 44.8 | 54.5 | 60.2 | 71.5 | 69.8 | 62.4 | 48.7 | 39.6 | 24.1 | 48.9 |
| ***Average*** | **33.2** | **32.1** | **38.9** | **43.6** | **54.0** | **60.1** | **72.3** | **70.2** | **61.8** | **47.9** | **38.8** | **27.6** | **47.9** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 29.6 | 31.7 | 37.1 | 44.3 | 53.4 | 57.3 | 71.0 | 69.4 | 63.1 | 48.8 | 38.0 | 26.7 | 47.5 |
| Olmstead Powerhouse | 36.9 | 37.2 | 42.5 | 48.9 | 59.1 | 62.0 | 77.5 | 74.4 | 68.1 | 53.0 | 44.4 | 30.9 | 52.9 |
| Scofield-Skyline Mine | 23.1 | 21.4 | 28.0 | 31.8 | 42.1 | 47.4 | 62.0 | 60.0 | 52.5 | 39.8 | 29.7 | 22.2 | 38.3 |
| Silver Lake Brighton | 22.3 | 21.2 | 24.5 | 30.0 | 40.0 | 45.3 | 61.4 | 58.7 | 51.0 | 36.5 | 26.9 | 19.4 | 36.4 |
| Woodruff | 21.5 | 21.1 | 20.2 | 37.8 | 47.4 | 51.7 | 64.9 | 62.3 | 56.1 | 41.6 | 32.8 | 20.8 | 39.9 |
| ***Average*** | **26.7** | **26.5** | **30.5** | **38.6** | **48.4** | **52.7** | **67.4** | **65.0** | **58.2** | **43.9** | **34.4** | **24.0** | **43.0** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 28.3 | 31.7 | 38.5 | 45.3 | 55.5 | 59.3 | 72.1 | 69.6 | 63.0 | 48.1 | 36.2 | 20.8 | 47.4 |
| Fort Duchesne | 27.8 | 32.9 | M | 46.3 | 57.0 | 58.1 | 75.5 | 71.7 | 65.5 | M | 38.8 | 14.0 | 48.8 |
| Jensen | 29.1 | 34.0 | 40.1 | 47.4 | 59.3 | 63.6 | 75.8 | 72.5 | 66.3 | 50.8 | 37.9 | 19.6 | 49.7 |
| Vernal Airport | 27.4 | 31.8 | 37.9 | 45.0 | 56.1 | 60.2 | 73.1 | 69.9 | 63.9 | 48.6 | 36.3 | 20.4 | 47.6 |
| ***Average*** | **28.2** | **32.6** | **38.8** | **46.0** | **57.0** | **60.3** | **74.1** | **70.9** | **64.7** | **49.2** | **37.3** | **18.7** | **48.3** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 37.7 | 39.5 | 47.1 | 52.1 | 65.5 | 72.1 | 85.5 | 83.7 | 74.2 | 57.2 | 44.5 | 31.6 | 57.6 |
| Blanding | 35.5 | 35.2 | 42.4 | 47.9 | 59.7 | 67.8 | 77.9 | 75.7 | 69.5 | 53.1 | 41.8 | 34.9 | 53.5 |
| Ferron | 29.9 | 31.1 | 40.5 | 45.8 | 56.4 | 62.7 | 76.0 | 73.1 | 64.5 | 49.6 | 37.8 | 27.7 | 49.6 |
| Green River Aviation | 34.9 | 39.2 | M | 52.9 | 63.0 | 68.9 | 82.0 | 79.1 | 71.7 | 53.2 | 41.8 | 27.8 | 55.9 |
| Hanksville | 34.3 | 36.7 | 44.9 | 52.4 | 64.5 | 70.6 | 83.1 | 79.6 | 69.8 | 53.1 | 41.8 | 27.3 | 54.8 |
| Moab | 37.9 | 41.0 | 48.0 | 55.0 | 66.0 | 73.0 | 85.1 | 82.2 | 74.0 | 56.9 | 45.1 | 31.9 | 58.0 |
| ***Average*** | **35.0** | **37.1** | **44.6** | **51.0** | **62.5** | **69.2** | **81.6** | **78.9** | **70.6** | **53.9** | **42.1** | **30.2** | **54.9** |

M = Missing Data. Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Mean Monthly Temperature (°F), Utah, 1961-90

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 26.2 | 32.5 | 40.7 | 48.2 | 57.1 | 65.7 | 73.4 | 71.3 | 61.6 | 49.8 | 37.9 | 27.4 | 49.3 |
| Delta | 24.3 | 32.2 | 40.2 | 48.0 | 57.5 | 67.3 | 75.1 | 72.8 | 62.5 | 50.9 | 37.6 | 26.4 | 49.6 |
| Enterprise Beryl Jct | 26.3 | 32.3 | 38.6 | 45.7 | 54.3 | 63.0 | 70.2 | 68.5 | 59.4 | 48.7 | 36.9 | 27.7 | 47.6 |
| Eskdale | 27.8 | 33.6 | 41.7 | 48.7 | 57.8 | 67.5 | 75.0 | 72.5 | 62.5 | 50.5 | 38.5 | 28.1 | 50.4 |
| Modena | 27.8 | 33.4 | 39.4 | 46.7 | 55.3 | 65.1 | 72.0 | 70.2 | 61.2 | 50.5 | 38.3 | 29.0 | 49.1 |
| Rosette | 24.2 | 28.7 | 37.4 | 47.8 | 57.4 | 66.3 | 73.0 | 70.8 | 61.1 | 49.3 | 34.6 | 20.4 | 47.6 |
| ***Average*** | ***26.1*** | ***32.1*** | ***39.7*** | ***47.5*** | ***56.6*** | ***65.8*** | ***73.1*** | ***71.0*** | ***61.4*** | ***50.0*** | ***37.3*** | ***26.5*** | ***48.9*** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 40.3 | 46.5 | 52.8 | 60.5 | 70.0 | 79.3 | 85.6 | 83.4 | 75.0 | 63.3 | 50.1 | 40.6 | 62.3 |
| Zion Nat'l Park | 40.2 | 45.0 | 49.7 | 57.5 | 67.1 | 77.5 | 83.9 | 81.5 | 74.2 | 63.3 | 49.8 | 41.1 | 60.9 |
| ***Average*** | ***40.3*** | ***45.8*** | ***51.3*** | ***59.0*** | ***68.6*** | ***78.4*** | ***84.8*** | ***82.5*** | ***74.6*** | ***63.3*** | ***50.0*** | ***40.9*** | ***61.6*** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 28.6 | 33.7 | 41.7 | 49.5 | 58.3 | 67.8 | 76.0 | 73.8 | 64.2 | 51.8 | 39.8 | 29.3 | 51.2 |
| Logan USU | 23.4 | 28.5 | 37.0 | 46.2 | 55.5 | 64.4 | 72.9 | 71.4 | 61.2 | 50.0 | 36.9 | 25.7 | 47.8 |
| Ogden Pioneer PH | 27.7 | 33.4 | 41.1 | 49.6 | 58.9 | 68.6 | 76.9 | 74.7 | 64.4 | 52.9 | 39.8 | 29.6 | 51.5 |
| Pleasant Grove | 28.1 | 33.8 | 41.3 | 48.9 | 57.8 | 66.7 | 74.4 | 72.3 | 63.1 | 52.1 | 40.1 | 30.1 | 50.7 |
| Provo BYU | 27.9 | 32.6 | 43.5 | 52.1 | 59.6 | 69.7 | 76.3 | 74.9 | 65.1 | 52.7 | 41.0 | 30.7 | 52.2 |
| SLC Airport NWSFO | 27.9 | 34.1 | 41.8 | 49.6 | 58.8 | 69.0 | 77.8 | 75.5 | 64.9 | 52.9 | 40.6 | 29.7 | 51.9 |
| Tooele | 28.5 | 33.7 | 40.5 | 48.6 | 57.9 | 67.6 | 75.8 | 73.5 | 63.4 | 51.6 | 39.2 | 29.6 | 50.8 |
| Tremonton | 23.5 | 28.8 | 40.2 | 49.4 | 56.7 | 66.7 | 74.2 | 73.0 | 62.8 | 50.3 | 37.2 | 25.8 | 49.1 |
| Trenton | 20.0 | 26.2 | 37.5 | 46.3 | 52.9 | 62.1 | 68.4 | 66.8 | 57.9 | 47.1 | 34.2 | 23.8 | 45.3 |
| ***Average*** | **26.2** | **31.6** | **40.5** | **48.9** | **57.4** | **67.0** | **74.7** | **72.9** | **63.0** | **51.3** | **38.8** | **28.3** | **50.0** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 22.6 | 25.3 | 30.6 | 38.2 | 47.0 | 56.4 | 62.8 | 60.6 | 53.0 | 43.2 | 31.6 | 23.8 | 41.3 |
| Cedar City FAA | 29.5 | 34.6 | 40.1 | 47.5 | 56.5 | 66.7 | 74.1 | 72.0 | 63.0 | 51.7 | 39.7 | 30.7 | 50.5 |
| Escalante | 27.6 | 34.0 | 40.4 | 48.0 | 56.8 | 66.1 | 72.3 | 69.7 | 61.5 | 51.1 | 39.2 | 29.6 | 49.7 |
| Fillmore | 27.9 | 34.2 | 41.1 | 48.8 | 57.7 | 67.4 | 75.4 | 73.3 | 64.2 | 52.3 | 39.6 | 29.2 | 50.9 |
| Kanab | 35.2 | 39.9 | 44.5 | 51.2 | 60.1 | 69.4 | 75.6 | 73.4 | 66.2 | 56.4 | 44.7 | 36.4 | 54.4 |
| Koosharem | 23.6 | 27.8 | 33.5 | 40.6 | 49.5 | 58.6 | 65.7 | 63.4 | 55.9 | 45.2 | 33.7 | 25.2 | 43.6 |
| Levan | 25.3 | 31.4 | 38.8 | 46.8 | 55.7 | 65.4 | 73.2 | 71.2 | 62.2 | 50.8 | 38.3 | 27.3 | 48.9 |
| Manti | 25.4 | 30.7 | 37.9 | 45.9 | 54.4 | 63.6 | 70.7 | 68.6 | 59.9 | 49.6 | 37.3 | 27.2 | 47.6 |
| Nephi | 27.5 | 33.0 | 40.1 | 48.1 | 57.2 | 67.0 | 75.2 | 73.1 | 63.5 | 51.9 | 39.5 | 29.3 | 50.5 |
| Panguitch | 24.0 | 29.0 | 35.0 | 42.3 | 50.6 | 59.2 | 65.7 | 63.6 | 56.1 | 46.2 | 34.8 | 25.6 | 44.3 |
| Richfield Radio KSVC | 27.0 | 32.7 | 39.6 | 46.9 | 55.2 | 64.0 | 71.0 | 68.9 | 60.4 | 49.7 | 37.9 | 28.7 | 48.5 |
| ***Average*** | ***26.9*** | ***32.1*** | ***38.3*** | ***45.8*** | ***54.6*** | ***64.0*** | ***71.1*** | ***68.9*** | ***60.5*** | ***49.8*** | ***37.8*** | ***28.5*** | ***48.2*** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 21.2 | 26.3 | 34.8 | 43.5 | 51.9 | 60.1 | 67.4 | 65.7 | 57.1 | 47.0 | 34.9 | 24.0 | 44.5 |
| Olmstead Powerhouse | 28.0 | 32.9 | 41.5 | 50.6 | 57.5 | 68.8 | 75.1 | 73.4 | 64.3 | 53.2 | 39.9 | 30.4 | 51.3 |
| Scofield-Skyline Mine | 20.5 | 20.8 | 27.8 | 37.1 | 42.8 | 54.1 | 59.7 | 58.2 | 49.4 | 39.8 | 28.2 | 19.9 | 38.2 |
| Silver Lake Brighton | 19.6 | 21.1 | 25.0 | 32.2 | 40.7 | 50.1 | 58.2 | 56.3 | 48.4 | 38.6 | 27.0 | 19.9 | 36.4 |
| Woodruff | 15.5 | 19.0 | 28.6 | 38.8 | 47.5 | 55.9 | 62.8 | 60.6 | 51.7 | 41.4 | 28.6 | 17.3 | 39.0 |
| ***Average*** | ***21.0*** | ***24.0*** | ***31.5*** | ***40.4*** | ***48.1*** | ***57.8*** | ***64.6*** | ***62.8*** | ***54.2*** | ***44.0*** | ***31.7*** | ***22.3*** | ***41.9*** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 18.4 | 25.4 | 36.6 | 46.8 | 56.0 | 64.7 | 71.2 | 69.4 | 59.6 | 48.1 | 34.2 | 21.1 | 46.0 |
| Fort Duchesne | 14.4 | 21.6 | 35.7 | 46.3 | 56.0 | 65.0 | 72.1 | 69.5 | 59.4 | 47.8 | 33.6 | 19.7 | 45.1 |
| Jensen | 14.9 | 22.8 | 36.4 | 47.0 | 56.7 | 65.2 | 72.0 | 69.3 | 59.8 | 48.0 | 33.7 | 19.4 | 45.4 |
| Vernal Airport | 15.2 | 23.5 | 36.4 | 47.1 | 56.1 | 65.5 | 72.3 | 69.9 | 60.6 | 48.3 | 33.6 | 20.1 | 45.7 |
| ***Average*** | ***15.7*** | ***23.3*** | ***36.3*** | ***46.8*** | ***56.2*** | ***65.1*** | ***71.9*** | ***69.5*** | ***59.9*** | ***48.1*** | ***33.8*** | ***20.1*** | ***45.6*** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 29.6 | 37.5 | 48.1 | 56.8 | 66.0 | 76.9 | 82.8 | 80.6 | 70.9 | 56.8 | 44.1 | 33.2 | 56.9 |
| Blanding | 27.3 | 33.7 | 39.6 | 47.4 | 57.1 | 67.2 | 73.2 | 70.9 | 62.8 | 51.7 | 39.1 | 29.8 | 50.0 |
| Ferron | 22.8 | 29.4 | 37.6 | 46.5 | 56.2 | 65.6 | 72.4 | 69.9 | 61.2 | 50.1 | 36.8 | 25.7 | 47.8 |
| Green River Aviation | 22.8 | 33.2 | 42.9 | 52.4 | 61.9 | 71.6 | 78.6 | 75.6 | 65.3 | 52.9 | 39.1 | 27.1 | 51.9 |
| Hanksville | 25.2 | 34.4 | 43.9 | 53.2 | 63.0 | 73.0 | 79.6 | 76.8 | 66.7 | 53.7 | 39.3 | 27.9 | 53.1 |
| Moab | 30.0 | 38.6 | 48.1 | 56.9 | 66.2 | 75.3 | 81.6 | 79.7 | 70.1 | 57.6 | 44.4 | 33.2 | 56.8 |
| ***Average*** | ***26.3*** | ***34.5*** | ***43.4*** | ***52.2*** | ***61.7*** | ***71.6*** | ***78.0*** | ***75.6*** | ***66.2*** | ***53.8*** | ***40.5*** | ***29.5*** | ***52.8*** |

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

# Total Precipitation (Inches), Utah, 1998

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 0.18 | 1.21 | 1.27 | 1.03 | 1.03 | 1.56 | 0.07 | 0.45 | 0.45 | 2.44 | 0.23 | 0.10 | 10.02 |
| Delta | 0.51 | 1.80 | 1.33 | 1.54 | 0.24 | 1.87 | 1.11 | 1.21 | 1.11 | 1.15 | 1.10 | 0.47 | 13.44 |
| Enterprise Beryl Jct | 0.60 | 2.16 | 2.36 | 0.64 | 0.89 | 0.83 | 3.03 | M | 2.45 | M | 0.62 | 0.28 | 13.86 |
| Eskdale | 0.21 | 2.38 | 0.69 | 0.73 | 0.15 | 1.99 | 1.93 | 0.99 | 1.65 | 1.19 | 0.44 | 0.22 | 12.57 |
| Modena | 0.26 | 2.39 | 1.58 | 0.67 | 0.80 | 0.64 | 1.12 | 0.59 | 4.05 | 2.00 | 0.49 | 0.55 | 15.14 |
| Rosette | 1.43 | 1.99 | 1.46 | 1.10 | 4.32 | 1.49 | 3.03 | 1.26 | 2.16 | 0.53 | 0.50 | 0.20 | 19.47 |
| ***Average*** | **0.53** | **1.99** | **1.45** | **0.95** | **1.24** | **1.40** | **1.72** | **0.90** | **1.98** | **1.46** | **0.56** | **0.30** | **14.08** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 0.90 | 3.11 | 0.93 | 1.12 | 0.40 | 0.57 | 1.11 | 0.77 | 2.10 | 1.65 | 1.31 | 0.00 | 13.97 |
| Zion Nat'l Park | 1.33 | 3.25 | 1.53 | 2.62 | 1.13 | 0.83 | 2.71 | 0.46 | 4.03 | 1.90 | 1.39 | 0.07 | 21.25 |
| ***Average*** | **1.12** | **3.18** | **1.23** | **1.87** | **0.77** | **0.70** | **1.91** | **0.62** | **3.07** | **1.78** | **1.35** | **0.04** | **17.61** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 3.89 | 4.82 | 2.99 | 2.95 | 2.74 | 5.39 | 0.93 | 0.68 | 1.09 | 2.27 | 1.14 | 0.83 | 29.72 |
| Logan USU | 4.19 | 3.05 | 2.11 | 2.24 | 4.29 | 3.79 | 0.84 | 1.55 | 1.28 | 2.05 | 0.99 | 0.98 | 27.36 |
| Ogden Pioneer PH | 3.84 | 3.99 | 1.94 | 3.83 | 4.89 | 4.77 | 1.20 | 0.57 | 0.96 | 2.00 | 0.79 | 0.94 | 29.72 |
| Pleasant Grove | 2.92 | 3.65 | 2.51 | 1.86 | 1.76 | 4.39 | 1.39 | 0.88 | 0.60 | 1.25 | 0.81 | 0.68 | 22.70 |
| Provo BYU | 3.05 | 3.15 | 1.98 | 2.29 | 1.93 | 4.14 | 0.61 | 0.85 | 1.21 | 1.48 | 1.38 | 0.76 | 22.83 |
| SLC Airport NWSFO | 1.63 | 4.89 | 2.97 | 2.09 | 1.04 | 3.84 | 1.57 | 0.46 | 1.53 | 1.25 | 1.27 | 1.27 | 23.81 |
| Tooele | 2.17 | 4.96 | 3.34 | 2.22 | 1.92 | 2.98 | 0.64 | 0.79 | 1.41 | 2.83 | 1.28 | 2.15 | 26.69 |
| Tremonton | 4.02 | 3.36 | 1.99 | 1.63 | 3.85 | 3.03 | 1.01 | 1.42 | 0.88 | 1.59 | 0.57 | 0.34 | 23.69 |
| Trenton | 4.13 | 2.92 | 2.27 | 1.96 | 3.65 | 2.90 | 0.11 | 1.33 | 0.97 | 1.94 | 0.64 | 0.98 | 23.80 |
| ***Average*** | **3.32** | **3.87** | **2.46** | **2.34** | **2.90** | **3.91** | **0.92** | **0.95** | **1.10** | **1.85** | **0.99** | **0.99** | **25.59** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 0.96 | 2.84 | 1.70 | 1.06 | 0.39 | 1.59 | 3.21 | 0.81 | 5.35 | 3.31 | 1.60 | 0.60 | 23.42 |
| Cedar City FAA | 0.77 | 0.66 | 0.92 | 1.14 | 0.59 | 1.18 | 1.53 | 0.17 | 1.81 | 2.53 | 1.14 | 0.42 | 12.86 |
| Escalante | 0.08 | 1.60 | 0.55 | 0.85 | 0.55 | 0.38 | 0.59 | 1.33 | 3.87 | 2.05 | 0.42 | 0.00 | 12.27 |
| Fillmore | 1.30 | 4.19 | 1.48 | 1.87 | 1.74 | 1.82 | 0.80 | 0.86 | 1.68 | 1.77 | 1.30 | 1.01 | 19.82 |
| Kanab | 1.62 | 3.84 | 2.98 | 1.90 | 0.51 | 0.45 | 1.79 | 0.61 | 5.52 | 2.15 | 2.78 | 0.04 | 24.19 |
| Koosharem | 0.57 | 1.69 | 0.38 | 0.43 | M | M | M | 0.48 | 1.55 | 1.79 | 0.41 | 0.59 | 7.89 |
| Levan | 1.64 | 2.77 | 2.30 | 2.41 | 0.80 | 2.84 | 1.85 | 0.62 | 0.92 | 3.00 | 1.05 | 0.68 | 20.88 |
| Manti | 1.06 | 2.04 | 1.37 | 1.07 | 0.62 | 2.13 | 2.02 | 0.74 | 1.74 | 2.00 | 0.97 | 0.74 | 16.50 |
| Nephi | 1.59 | 2.33 | 1.73 | 1.39 | 1.06 | 4.04 | 1.53 | 0.98 | 0.81 | 2.03 | 1.05 | 0.77 | 19.31 |
| Panguitch | 0.25 | 0.67 | 0.62 | 0.35 | 0.08 | 0.71 | 1.77 | 0.80 | 3.65 | 2.77 | 0.31 | 0.07 | 12.05 |
| Richfield Radio KSVC | 0.44 | 1.66 | 0.21 | 0.47 | 0.11 | 1.57 | 0.75 | 0.44 | 1.82 | 1.34 | 0.56 | 0.76 | 10.13 |
| ***Average*** | **0.93** | **2.21** | **1.29** | **1.18** | **0.65** | **1.67** | **1.58** | **0.71** | **2.61** | **2.25** | **1.05** | **0.52** | **16.30** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 3.10 | 1.88 | 1.49 | 1.13 | 1.60 | 3.44 | 0.44 | 1.19 | 0.45 | 1.21 | 1.21 | 0.58 | 17.72 |
| Olmstead Powerhouse | 4.04 | 3.74 | 2.10 | 2.58 | 2.58 | 6.17 | 0.88 | 0.52 | 0.75 | 1.52 | 1.22 | 0.67 | 26.77 |
| Scofield-Skyline Mine | 3.15 | 3.10 | 2.23 | 1.96 | 1.18 | 2.19 | 2.43 | 1.61 | 2.17 | 1.86 | 1.77 | 0.87 | 24.52 |
| Silver Lake Brighton | 8.48 | 7.47 | 4.78 | 4.07 | 3.99 | 6.09 | 1.05 | 1.67 | 2.09 | 3.51 | 4.30 | 2.31 | 49.81 |
| Woodruff | 0.50 | 1.36 | 1.28 | 0.15 | 1.94 | 5.05 | 0.63 | 1.44 | 0.95 | 1.40 | 0.08 | 0.15 | 14.93 |
| ***Average*** | **3.85** | **3.51** | **2.38** | **1.98** | **2.26** | **4.59** | **1.09** | **1.29** | **1.28** | **1.90** | **1.72** | **0.92** | **26.75** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 0.23 | 0.97 | 0.85 | 0.60 | 0.46 | 2.16 | 1.31 | 2.03 | 1.56 | 1.02 | 0.32 | 0.36 | 11.87 |
| Fort Duchesne | 0.43 | 0.63 | M | 0.05 | 0.09 | 0.65 | 0.15 | 0.67 | 0.24 | M | 0.16 | 0.33 | 3.40 |
| Jensen | 0.27 | 1.24 | 0.73 | 0.75 | 0.25 | 2.21 | 1.25 | 1.02 | 0.32 | 1.47 | 0.75 | 0.39 | 10.65 |
| Vernal Airport | 0.35 | 1.16 | 0.77 | 0.13 | 0.10 | 1.24 | 1.76 | 0.99 | 0.45 | 1.72 | 0.83 | 0.25 | 9.75 |
| ***Average*** | **0.32** | **1.00** | **0.78** | **0.38** | **0.23** | **1.57** | **1.12** | **1.18** | **0.64** | **1.40** | **0.52** | **0.33** | **8.92** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 0.13 | 0.73 | 0.71 | 1.53 | 0.40 | 0.43 | 0.72 | 0.24 | 1.20 | 2.93 | 0.28 | 0.18 | 9.48 |
| Blanding | 0.79 | 1.78 | 1.56 | 0.73 | 0.62 | 0.12 | 1.91 | 0.44 | 0.75 | 3.58 | 1.72 | 0.22 | 14.22 |
| Ferron | 0.24 | 2.41 | 0.07 | 0.26 | 0.32 | 0.36 | 0.76 | 0.80 | 2.09 | 2.04 | 0.64 | 0.09 | 10.08 |
| Green River Aviation | 0.35 | 1.77 | 0.57 | 1.27 | 0.15 | 0.64 | 1.82 | 0.05 | 0.72 | 0.98 | 0.80 | 0.05 | 9.17 |
| Hanksville | 0.05 | 0.27 | 0.25 | 0.90 | 0.03 | 0.35 | 0.13 | 0.18 | 1.90 | 1.02 | 0.52 | 0.15 | 5.75 |
| Moab | 0.52 | 0.52 | 1.06 | 0.57 | 0.60 | 0.52 | 0.28 | 0.12 | 1.03 | 2.79 | 0.67 | 0.34 | 9.02 |
| ***Average*** | **0.35** | **1.25** | **0.70** | **0.88** | **0.35** | **0.40** | **0.94** | **0.31** | **1.28** | **2.22** | **0.77** | **0.17** | **9.62** |

M=Missing Data. Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

# Normal Precipitation (Inches), Utah, 1961-90

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 0.29 | 0.33 | 0.41 | 0.47 | 0.81 | 0.73 | 0.53 | 0.66 | 0.60 | 0.66 | 0.34 | 0.28 | 6.11 |
| Delta | 0.50 | 0.56 | 0.85 | 0.79 | 0.90 | 0.47 | 0.53 | 0.57 | 0.81 | 0.81 | 0.71 | 0.62 | 8.12 |
| Enterprise Beryl Jct | 0.68 | 0.83 | 1.10 | 0.90 | 0.66 | 0.46 | 1.18 | 1.18 | 0.94 | 0.81 | 0.86 | 0.62 | 10.22 |
| Eskdale | 0.24 | 0.33 | 0.66 | 0.59 | 0.60 | 0.59 | 0.56 | 0.55 | 0.73 | 0.64 | 0.40 | 0.31 | 6.20 |
| Modena | 0.66 | 0.86 | 0.94 | 0.88 | 0.66 | 0.39 | 1.39 | 1.29 | 1.02 | 0.95 | 0.70 | 0.58 | 10.32 |
| Rosette | 0.84 | 0.82 | 0.87 | 0.90 | 1.45 | 1.29 | 1.03 | 1.06 | 0.70 | 0.94 | 0.87 | 0.80 | 11.57 |
| ***Average*** | ***0.54*** | ***0.62*** | ***0.81*** | ***0.76*** | ***0.85*** | ***0.66*** | ***0.87*** | ***0.89*** | ***0.80*** | ***0.80*** | ***0.65*** | ***0.54*** | ***8.76*** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 1.07 | 0.84 | 1.11 | 0.51 | 0.39 | 0.17 | 0.60 | 0.76 | 0.54 | 0.52 | 0.84 | 0.71 | 8.06 |
| Zion Nat'l Park | 1.59 | 1.60 | 2.05 | 1.15 | 0.84 | 0.48 | 1.25 | 1.79 | 1.00 | 0.92 | 1.46 | 1.28 | 15.42 |
| ***Average*** | ***1.33*** | ***1.22*** | ***1.58*** | ***0.83*** | ***0.62*** | ***0.33*** | ***0.93*** | ***1.28*** | ***0.77*** | ***0.72*** | ***1.15*** | ***1.00*** | ***11.74*** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 1.88 | 1.89 | 2.44 | 2.76 | 2.71 | 1.48 | 0.83 | 0.99 | 1.65 | 2.01 | 1.96 | 2.00 | 22.60 |
| Logan USU | 1.38 | 1.65 | 2.02 | 2.15 | 2.04 | 1.57 | 0.78 | 0.97 | 1.62 | 1.87 | 1.73 | 1.72 | 19.50 |
| Ogden Pioneer PH | 1.99 | 1.92 | 2.32 | 2.63 | 2.51 | 1.56 | 0.83 | 1.01 | 1.73 | 1.93 | 2.06 | 2.13 | 22.62 |
| Pleasant Grove | 1.58 | 1.55 | 1.81 | 1.89 | 1.65 | 0.97 | 0.78 | 0.83 | 1.27 | 1.67 | 1.51 | 1.59 | 17.10 |
| Provo BYU | 1.59 | 1.94 | 2.50 | 1.77 | 2.12 | 1.21 | 1.29 | 1.41 | 2.08 | 2.13 | 2.05 | 1.91 | 22.00 |
| SLC Airport NWSFO | 1.11 | 1.24 | 1.91 | 2.12 | 1.80 | 0.93 | 0.81 | 0.86 | 1.28 | 1.44 | 1.29 | 1.40 | 16.19 |
| Tooele | 1.08 | 1.33 | 2.32 | 2.49 | 1.91 | 1.12 | 0.92 | 0.94 | 1.42 | 1.81 | 1.69 | 1.48 | 18.51 |
| Tremonton | 1.36 | 1.46 | 1.88 | 1.59 | 2.61 | 1.00 | 1.49 | 0.76 | 1.89 | 1.45 | 1.63 | 1.45 | 18.57 |
| Trenton | 1.34 | 1.64 | 1.97 | 1.89 | 2.63 | 1.11 | 0.94 | 0.98 | 1.63 | 1.56 | 1.68 | 1.41 | 18.78 |
| ***Average*** | **1.48** | **1.62** | **2.13** | **2.14** | **2.22** | **1.22** | **0.96** | **0.97** | **1.62** | **1.76** | **1.73** | **1.68** | **19.54** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 1.16 | 1.36 | 1.53 | 0.95 | 1.03 | 0.57 | 1.51 | 2.20 | 1.70 | 1.20 | 1.20 | 1.12 | 15.53 |
| Cedar City FAA | 0.69 | 0.89 | 1.36 | 1.10 | 0.84 | 0.43 | 1.09 | 1.47 | 0.98 | 0.95 | 1.00 | 0.70 | 11.50 |
| Escalante | 0.78 | 0.64 | 0.90 | 0.50 | 0.68 | 0.41 | 1.06 | 1.51 | 1.04 | 0.98 | 0.83 | 0.70 | 10.03 |
| Fillmore | 1.27 | 1.26 | 2.08 | 1.82 | 1.43 | 0.90 | 0.75 | 0.87 | 1.21 | 1.38 | 1.46 | 1.50 | 15.93 |
| Kanab | 1.50 | 1.32 | 1.60 | 0.92 | 0.72 | 0.32 | 1.01 | 1.49 | 0.94 | 0.98 | 1.27 | 1.24 | 13.31 |
| Koosharem | 0.54 | 0.51 | 0.73 | 0.61 | 0.82 | 0.60 | 1.12 | 1.46 | 1.05 | 0.76 | 0.57 | 0.61 | 9.38 |
| Levan | 1.23 | 1.24 | 1.65 | 1.52 | 1.45 | 0.87 | 0.82 | 0.97 | 1.38 | 1.36 | 1.29 | 1.39 | 15.17 |
| Manti | 0.98 | 1.02 | 1.53 | 1.41 | 1.28 | 0.81 | 0.82 | 0.98 | 1.40 | 1.29 | 1.14 | 1.06 | 13.72 |
| Nephi | 1.14 | 1.19 | 1.71 | 1.51 | 1.39 | 0.82 | 0.86 | 1.01 | 1.19 | 1.26 | 1.39 | 1.33 | 14.80 |
| Panguitch | 0.48 | 0.61 | 0.79 | 0.67 | 0.82 | 0.63 | 1.50 | 1.78 | 1.05 | 0.71 | 0.78 | 0.51 | 10.33 |
| Richfield Radio KSVC | 0.56 | 0.58 | 0.73 | 0.75 | 0.84 | 0.58 | 0.79 | 0.70 | 0.93 | 0.84 | 0.68 | 0.59 | 8.57 |
| ***Average*** | ***0.94*** | ***0.97*** | ***1.33*** | ***1.07*** | ***1.03*** | ***0.63*** | ***1.03*** | ***1.31*** | ***1.17*** | ***1.06*** | ***1.06*** | ***0.98*** | ***12.58*** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 1.78 | 1.56 | 1.37 | 1.37 | 1.23 | 0.90 | 0.87 | 0.98 | 1.26 | 1.45 | 1.64 | 1.62 | 16.01 |
| Olmstead Powerhouse | 1.91 | 2.02 | 2.54 | 1.63 | 2.38 | 0.75 | 0.92 | 1.27 | 2.01 | 1.94 | 2.19 | 1.57 | 21.14 |
| Scofield-Skyline Mine | 1.83 | 3.12 | 2.87 | 1.52 | 1.68 | 1.01 | 1.71 | 1.38 | 1.73 | 1.95 | 2.88 | 1.98 | 23.68 |
| Silver Lake Brighton | 4.92 | 4.76 | 5.31 | 4.42 | 2.96 | 1.84 | 1.69 | 1.95 | 2.58 | 3.49 | 4.87 | 4.90 | 43.68 |
| Woodruff | 0.43 | 0.45 | 0.57 | 0.92 | 0.89 | 1.05 | 0.72 | 0.69 | 1.16 | 0.93 | 0.65 | 0.58 | 9.04 |
| ***Average*** | ***2.17*** | ***2.38*** | ***2.53*** | ***1.97*** | ***1.83*** | ***1.11*** | ***1.18*** | ***1.25*** | ***1.75*** | ***1.95*** | ***2.45*** | ***2.13*** | ***22.71*** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 0.43 | 0.50 | 0.64 | 0.84 | 0.91 | 0.90 | 0.97 | 1.00 | 1.17 | 0.94 | 0.52 | 0.73 | 9.55 |
| Fort Duchesne | 0.35 | 0.32 | 0.46 | 0.59 | 0.72 | 0.63 | 0.61 | 0.66 | 0.70 | 0.86 | 0.37 | 0.45 | 6.72 |
| Jensen | 0.46 | 0.52 | 0.61 | 0.72 | 0.77 | 0.64 | 0.66 | 0.59 | 0.91 | 1.02 | 0.59 | 0.63 | 8.13 |
| Vernal Airport | 0.39 | 0.36 | 0.51 | 0.61 | 0.73 | 0.64 | 0.59 | 0.66 | 0.70 | 0.82 | 0.42 | 0.37 | 6.80 |
| ***Average*** | ***0.41*** | ***0.43*** | ***0.56*** | ***0.69*** | ***0.78*** | ***0.70*** | ***0.71*** | ***0.73*** | ***0.87*** | ***0.91*** | ***0.48*** | ***0.55*** | ***7.80*** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 0.47 | 0.32 | 0.91 | 0.83 | 0.65 | 0.37 | 1.01 | 1.09 | 0.73 | 1.31 | 0.79 | 0.49 | 8.97 |
| Blanding | 1.25 | 0.91 | 0.95 | 0.75 | 0.62 | 0.46 | 1.32 | 1.43 | 1.28 | 1.36 | 1.08 | 1.18 | 12.60 |
| Ferron | 0.62 | 0.55 | 0.66 | 0.49 | 0.72 | 0.49 | 1.03 | 1.09 | 0.87 | 0.79 | 0.53 | 0.56 | 8.40 |
| Green River Aviation | 0.40 | 0.32 | 0.59 | 0.50 | 0.61 | 0.41 | 0.57 | 0.74 | 0.71 | 0.87 | 0.41 | 0.39 | 6.52 |
| Hanksville | 0.38 | 0.22 | 0.51 | 0.42 | 0.49 | 0.30 | 0.53 | 0.73 | 0.74 | 0.68 | 0.38 | 0.31 | 5.69 |
| Moab | 0.56 | 0.43 | 0.85 | 0.98 | 0.72 | 0.48 | 0.83 | 0.86 | 0.75 | 1.16 | 0.74 | 0.65 | 9.00 |
| ***Average*** | ***0.61*** | ***0.46*** | ***0.75*** | ***0.66*** | ***0.64*** | ***0.42*** | ***0.88*** | ***0.99*** | ***0.85*** | ***1.03*** | ***0.66*** | ***0.60*** | ***8.53*** |

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Total Growing Degree Days Base 50, by Months, Utah, 1998

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 30 | 15 | 123 | 156 | 314 | 403 | 691 | 663 | 493 | 197 | 69 | 36 | 3,190 |
| Delta | 28 | 9 | 148 | 175 | 331 | 415 | 681 | 646 | 498 | 250 | 80 | 22 | 3,283 |
| Enterprise Beryl Jct | 49 | 4 | 112 | 141 | 220 | 436 | 569 | 0 | 442 | 0 | 110 | 40 | 2,123 |
| Eskdale | 50 | 9 | 108 | 159 | 331 | 436 | 684 | 652 | 482 | 224 | 91 | 27 | 3,253 |
| Modena | 37 | 4 | 122 | 157 | 278 | 431 | 475 | 614 | 453 | 241 | 98 | 47 | 2,957 |
| Rosette | 0 | 0 | 37 | 75 | 172 | 262 | 648 | 611 | 407 | 152 | 8 | 3 | 2,375 |
| ***Average*** | **32** | **7** | **108** | **144** | **274** | **397** | **625** | **531** | **463** | **177** | **76** | **29** | **2,864** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 108 | 83 | 275 | 330 | 544 | 685 | 889 | 914 | 708 | 436 | 208 | 117 | 5,297 |
| Zion Nat'l Park | 99 | 36 | 220 | 266 | 487 | 620 | 850 | 886 | 694 | 392 | 175 | 104 | 4,829 |
| ***Average*** | **104** | **60** | **248** | **298** | **516** | **653** | **870** | **900** | **701** | **414** | **192** | **111** | **5,063** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 19 | 11 | 104 | 171 | 354 | 425 | 721 | 654 | 566 | 259 | 92 | 30 | 3,406 |
| Logan USU | 0 | 2 | 41 | 94 | 257 | 316 | 735 | 698 | 491 | 169 | 27 | 15 | 2,845 |
| Ogden Pioneer PH | 4 | 6 | 73 | 128 | 303 | 372 | 792 | 754 | 543 | 190 | 48 | 19 | 3,232 |
| Pleasant Grove | 12 | 5 | 107 | 151 | 327 | 405 | 746 | 704 | 510 | 221 | 82 | 27 | 3,297 |
| Provo BYU | 22 | 9 | 123 | 176 | 387 | 450 | 753 | 723 | 552 | 248 | 91 | 29 | 3,563 |
| SLC Airport NWSFO | 20 | 8 | 76 | 129 | 317 | 389 | 812 | 777 | 534 | 178 | 69 | 23 | 3,332 |
| Tooele | 13 | 4 | 86 | 152 | 346 | 398 | 815 | 761 | 503 | 191 | 66 | 30 | 3,365 |
| Tremonton | 2 | 9 | 69 | 131 | 277 | 372 | 705 | 708 | 518 | 207 | 29 | 16 | 3,043 |
| Trenton | 0 | 0 | 40 | 107 | 261 | 316 | 633 | 593 | 450 | 205 | 29 | 15 | 2,649 |
| ***Average*** | **10** | **6** | **80** | **138** | **314** | **383** | **746** | **708** | **519** | **208** | **59** | **23** | **3,192** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 0 | 0 | 21 | 43 | 166 | 279 | 466 | 443 | 250 | 88 | 9 | 2 | 1,767 |
| Cedar City FAA | 41 | 9 | 112 | 144 | 303 | 407 | 628 | 634 | 434 | 203 | 70 | 22 | 3,007 |
| Escalante | 21 | 0 | 122 | 169 | 369 | 472 | 663 | 645 | 464 | 242 | 75 | 35 | 3,277 |
| Fillmore | 21 | 3 | 103 | 133 | 322 | 404 | 698 | 684 | 450 | 118 | 75 | 19 | 3,030 |
| Kanab | 42 | 6 | 144 | 177 | 354 | 476 | 679 | 705 | 512 | 275 | 117 | 61 | 3,548 |
| Koosharem | 4 | 0 | 42 | 87 | 0 | 0 | 0 | 508 | 340 | 154 | 43 | 14 | 1,192 |
| Levan | 20 | 2 | 112 | 143 | 317 | 397 | 635 | 611 | 461 | 216 | 76 | 27 | 3,017 |
| Manti | 3 | 0 | 85 | 104 | 272 | 347 | 641 | 600 | 425 | 187 | 64 | 13 | 2,741 |
| Nephi | 10 | 0 | 108 | 141 | 336 | 410 | 691 | 657 | 490 | 227 | 92 | 23 | 3,185 |
| Panguitch | 8 | 0 | 85 | 123 | 316 | 425 | 567 | 567 | 407 | 196 | 63 | 15 | 2,772 |
| Richfield Radio KSVC | 24 | 7 | 120 | 146 | 327 | 399 | 610 | 587 | 445 | 228 | 85 | 31 | 3,009 |
| ***Average*** | **18** | **2** | **96** | **128** | **280** | **365** | **571** | **604** | **425** | **194** | **70** | **24** | **2,777** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 2 | 1 | 87 | 142 | 310 | 366 | 592 | 574 | 475 | 235 | 59 | 22 | 2,865 |
| Olmstead Powerhouse | 8 | 6 | 117 | 161 | 348 | 410 | 735 | 688 | 531 | 230 | 92 | 32 | 3,358 |
| Scofield-Skyline Mine | 0 | 0 | 9 | 22 | 96 | 167 | 414 | 383 | 218 | 61 | 4 | 1 | 1,375 |
| Silver Lake Brighton | 0 | 0 | 2 | 13 | 45 | 114 | 390 | 348 | 181 | 26 | 1 | 0 | 1,120 |
| Woodruff | 0 | 0 | 0 | 79 | 190 | 232 | 516 | 483 | 356 | 124 | 29 | 6 | 2,015 |
| ***Average*** | **2** | **1** | **43** | **83** | **198** | **258** | **529** | **495** | **352** | **135** | **37** | **12** | **2,147** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 0 | 0 | 87 | 139 | 323 | 373 | 643 | 596 | 423 | 167 | 22 | 5 | 2,778 |
| Fort Duchesne | 0 | 0 | 0 | 194 | 370 | 441 | 670 | 599 | 491 | 0 | 31 | 12 | 2,808 |
| Jensen | 0 | 1 | 114 | 192 | 410 | 445 | 677 | 621 | 508 | 257 | 43 | 12 | 3,280 |
| Vernal Airport | 0 | 0 | 88 | 144 | 349 | 396 | 627 | 586 | 471 | 213 | 33 | 9 | 2,916 |
| ***Average*** | **0** | **0** | **72** | **167** | **363** | **414** | **654** | **601** | **473** | **159** | **32** | **10** | **2,946** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 28 | 35 | 188 | 251 | 523 | 596 | 856 | 838 | 658 | 335 | 120 | 28 | 4,456 |
| Blanding | 12 | 7 | 116 | 175 | 397 | 526 | 756 | 721 | 576 | 236 | 64 | 39 | 3,625 |
| Ferron | 1 | 0 | 103 | 136 | 334 | 439 | 720 | 668 | 463 | 201 | 40 | 20 | 3,125 |
| Green River Aviation | 27 | 29 | 0 | 281 | 483 | 533 | 791 | 739 | 624 | 287 | 103 | 23 | 3,920 |
| Hanksville | 39 | 28 | 193 | 266 | 496 | 553 | 799 | 730 | 578 | 288 | 102 | 24 | 4,096 |
| Moab | 39 | 42 | 220 | 313 | 534 | 609 | 838 | 781 | 641 | 344 | 133 | 38 | 4,532 |
| ***Average*** | **24** | **24** | **137** | **237** | **461** | **543** | **793** | **746** | **590** | **282** | **94** | **29** | **3,959** |

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Growing Degree Days Base 50, by Months, Utah, 1961-90

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 13 | 35 | 107 | 204 | 346 | 469 | 643 | 593 | 422 | 248 | 72 | 14 | 3,167 |
| Delta | 6 | 34 | 107 | 213 | 371 | 514 | 662 | 633 | 452 | 280 | 80 | 11 | 3,361 |
| Enterprise Beryl Jct | 15 | 37 | 108 | 214 | 357 | 480 | 592 | 569 | 429 | 280 | 93 | 21 | 3,195 |
| Eskdale | 20 | 49 | 125 | 222 | 391 | 519 | 662 | 624 | 460 | 280 | 94 | 21 | 3,466 |
| Modena | 18 | 40 | 108 | 218 | 369 | 498 | 612 | 587 | 442 | 296 | 94 | 22 | 3,304 |
| Rosette | 0 | 15 | 69 | 180 | 377 | 579 | 815 | 747 | 474 | 202 | 30 | 04 | 3,492 |
| ***Average*** | ***12*** | ***35*** | ***104*** | ***209*** | ***368*** | ***510*** | ***664*** | ***625*** | ***446*** | ***264*** | ***77*** | ***15*** | ***3,331*** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 79 | 157 | 272 | 403 | 568 | 697 | 838 | 812 | 628 | 456 | 220 | 80 | 5,208 |
| Zion Nat'l Park | 67 | 120 | 204 | 338 | 539 | 705 | 845 | 818 | 665 | 460 | 192 | 77 | 5,030 |
| ***Average*** | ***73*** | ***139*** | ***238*** | ***370*** | ***553*** | ***701*** | ***841*** | ***815*** | ***647*** | ***458*** | ***206*** | ***79*** | ***5,119*** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 4 | 22 | 82 | 195 | 360 | 524 | 707 | 669 | 461 | 247 | 60 | 5 | 3,336 |
| Logan USU | 1 | 6 | 38 | 128 | 281 | 450 | 672 | 636 | 390 | 196 | 33 | 2 | 2,833 |
| Ogden Pioneer PH | 3 | 18 | 72 | 180 | 356 | 542 | 744 | 703 | 461 | 250 | 57 | 5 | 3,391 |
| Pleasant Grove | 5 | 27 | 91 | 193 | 358 | 506 | 684 | 646 | 452 | 264 | 73 | 10 | 3,309 |
| Provo BYU | 6 | 30 | 105 | 237 | 382 | 559 | 706 | 680 | 478 | 267 | 80 | 12 | 3,542 |
| SLC Airport NWSFO | 4 | 23 | 80 | 183 | 358 | 546 | 750 | 712 | 475 | 253 | 65 | 7 | 3,456 |
| Tooele | 6 | 18 | 67 | 168 | 337 | 528 | 743 | 694 | 441 | 222 | 50 | 7 | 3,281 |
| Tremonton | 0 | 9 | 54 | 183 | 307 | 507 | 695 | 667 | 430 | 212 | 37 | 3 | 3,104 |
| Trenton | 0 | 6 | 51 | 181 | 283 | 445 | 568 | 545 | 391 | 223 | 38 | 2 | 2,733 |
| ***Average*** | **3** | **18** | **71** | **183** | **336** | **512** | **697** | **661** | **442** | **237** | **55** | **6** | **3,221** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 2 | 4 | 22 | 85 | 212 | 361 | 465 | 419 | 295 | 159 | 27 | 4 | 2,054 |
| Cedar City FAA | 15 | 39 | 91 | 186 | 343 | 513 | 674 | 639 | 453 | 272 | 89 | 23 | 3,336 |
| Escalante | 10 | 32 | 98 | 211 | 368 | 505 | 625 | 580 | 429 | 267 | 80 | 11 | 3,216 |
| Fillmore | 10 | 34 | 98 | 200 | 361 | 525 | 687 | 654 | 470 | 273 | 82 | 12 | 3,407 |
| Kanab | 41 | 81 | 149 | 258 | 416 | 550 | 685 | 657 | 505 | 352 | 149 | 54 | 3,897 |
| Koosharem | 6 | 15 | 47 | 126 | 268 | 412 | 525 | 494 | 370 | 219 | 61 | 12 | 2,556 |
| Levan | 3 | 21 | 83 | 184 | 336 | 487 | 648 | 616 | 444 | 269 | 77 | 7 | 3,175 |
| Manti | 4 | 15 | 67 | 162 | 306 | 458 | 612 | 571 | 394 | 235 | 62 | 7 | 2,893 |
| Nephi | 7 | 26 | 92 | 199 | 359 | 510 | 674 | 643 | 464 | 286 | 88 | 13 | 3,360 |
| Panguitch | 9 | 22 | 70 | 166 | 305 | 439 | 537 | 500 | 388 | 255 | 80 | 14 | 2,785 |
| Richfield Radio KSVC | 14 | 38 | 107 | 209 | 353 | 484 | 607 | 578 | 444 | 289 | 95 | 21 | 3,238 |
| ***Average*** | ***11*** | ***30*** | ***84*** | ***181*** | ***330*** | ***477*** | ***613*** | ***577*** | ***423*** | ***262*** | ***81*** | ***16*** | ***3,083*** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 1 | 8 | 44 | 142 | 289 | 419 | 556 | 527 | 383 | 238 | 55 | 5 | 2,667 |
| Olmstead Powerhouse | 5 | 22 | 79 | 218 | 337 | 538 | 688 | 659 | 465 | 266 | 70 | 12 | 3,357 |
| Scofield-Skyline Mine | 0 | 0 | 6 | 46 | 112 | 286 | 375 | 347 | 202 | 88 | 10 | 0 | 1,474 |
| Silver Lake Brighton | 1 | 1 | 4 | 20 | 86 | 211 | 347 | 312 | 182 | 70 | 7 | 1 | 1,240 |
| Woodruff | 0 | 2 | 18 | 94 | 220 | 342 | 492 | 466 | 317 | 174 | 27 | 1 | 2,152 |
| ***Average*** | ***1*** | ***7*** | ***30*** | ***104*** | ***209*** | ***359*** | ***492*** | ***462*** | ***310*** | ***167*** | ***34*** | ***4*** | ***2,178*** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 2 | 10 | 66 | 187 | 352 | 469 | 613 | 583 | 396 | 216 | 37 | 1 | 2,931 |
| Fort Duchesne | 1 | 7 | 61 | 183 | 341 | 470 | 589 | 557 | 400 | 223 | 41 | 1 | 2,875 |
| Jensen | 1 | 11 | 76 | 210 | 373 | 486 | 608 | 549 | 423 | 250 | 48 | 2 | 3,035 |
| Vernal Airport | 1 | 11 | 67 | 187 | 316 | 455 | 580 | 561 | 390 | 220 | 42 | 2 | 2,831 |
| ***Average*** | ***1*** | ***10*** | ***67*** | ***192*** | ***346*** | ***470*** | ***597*** | ***582*** | ***403*** | ***227*** | ***42*** | ***1*** | ***2,918*** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 7 | 53 | 172 | 322 | 508 | 694 | 830 | 798 | 593 | 342 | 113 | 7 | 4,438 |
| Blanding | 4 | 21 | 76 | 184 | 351 | 520 | 662 | 619 | 431 | 247 | 61 | 6 | 3,181 |
| Ferron | 3 | 14 | 64 | 165 | 321 | 485 | 636 | 598 | 401 | 238 | 55 | 3 | 2,981 |
| Green River Aviation | 6 | 43 | 142 | 278 | 434 | 568 | 708 | 649 | 486 | 309 | 88 | 6 | 3,716 |
| Hanksville | 12 | 51 | 167 | 304 | 473 | 594 | 717 | 684 | 518 | 341 | 104 | 11 | 3,974 |
| Moab | 16 | 67 | 194 | 339 | 514 | 644 | 776 | 744 | 573 | 385 | 137 | 20 | 4,408 |
| ***Average*** | ***8*** | ***41*** | ***136*** | ***265*** | ***433*** | ***584*** | ***721*** | ***682*** | ***500*** | ***310*** | ***93*** | ***9*** | ***3,783*** |

Source: Utah Climate Center, Utah State University, Utah 84322-4825

## Total Growing Degree Days Base 40, by Months, Utah, 1998

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 139 | 98 | 245 | 309 | 505 | 609 | 864 | 832 | 681 | 355 | 206 | 88 | 4,931 |
| Delta | 127 | 82 | 271 | 314 | 510 | 591 | 852 | 821 | 681 | 395 | 199 | 79 | 4,922 |
| Enterprise Beryl Jct | 161 | 53 | 230 | 276 | 361 | 548 | 713 | M | 596 | M | 241 | 132 | 3,311 |
| Eskdale | 168 | 84 | 226 | 305 | 516 | 618 | 861 | 826 | 682 | 377 | 224 | 107 | 4,994 |
| Modena | 139 | 60 | 247 | 289 | 442 | 565 | 610 | 777 | 640 | 397 | 229 | 146 | 4,541 |
| Rosette | 18 | 17 | 120 | 196 | 345 | 450 | 837 | 806 | 622 | 304 | 90 | 48 | 3,853 |
| ***Average*** | **125** | **66** | **223** | **282** | **447** | **564** | **790** | **812** | **650** | **366** | **198** | **100** | **4,425** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 260 | 240 | 457 | 517 | 770 | 861 | 1,058 | 1,080 | 879 | 639 | 369 | 264 | 7,394 |
| Zion Nat'l Park | 239 | 166 | 392 | 446 | 707 | 808 | 1,020 | 1,056 | 878 | 629 | 336 | 236 | 6,913 |
| ***Average*** | **250** | **203** | **425** | **482** | **739** | **835** | **1,039** | **1,068** | **879** | **634** | **353** | **250** | **7,154** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 110 | 77 | 229 | 322 | 570 | 616 | 894 | 821 | 764 | 443 | 231 | 92 | 5,169 |
| Logan USU | 32 | 26 | 120 | 231 | 460 | 561 | 911 | 883 | 713 | 341 | 126 | 45 | 4,449 |
| Ogden Pioneer PH | 56 | 54 | 181 | 291 | 545 | 628 | 968 | 932 | 775 | 386 | 171 | 66 | 5,053 |
| Pleasant Grove | 92 | 60 | 229 | 304 | 558 | 624 | 923 | 882 | 734 | 393 | 210 | 79 | 5,088 |
| Provo BYU | 115 | 88 | 255 | 331 | 618 | 657 | 925 | 894 | 772 | 436 | 229 | 92 | 5,412 |
| SLC Airport NWSFO | 115 | 76 | 188 | 279 | 564 | 642 | 988 | 953 | 762 | 366 | 198 | 66 | 5,197 |
| Tooele | 104 | 62 | 208 | 306 | 576 | 627 | 991 | 946 | 742 | 366 | 190 | 89 | 5,207 |
| Tremonton | 50 | 72 | 170 | 282 | 500 | 619 | 880 | 889 | 730 | 383 | 150 | 57 | 4,782 |
| Trenton | **20** | **21** | **124** | **240** | **419** | **528** | **806** | **757** | **616** | **360** | **133** | **40** | **4,064** |
| ***Average*** | **77** | **60** | **189** | **287** | **534** | **611** | **921** | **884** | **734** | **386** | **182** | **70** | **4,936** |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 20 | 0 | 86 | 118 | 318 | 425 | 673 | 640 | 426 | 211 | 89 | 52 | 3,058 |
| Cedar City FAA | 141 | 81 | 247 | 281 | 478 | 566 | 811 | 808 | 640 | 350 | 189 | 101 | 4,693 |
| Escalante | 123 | 55 | 258 | 315 | 532 | 612 | 835 | 817 | 670 | 403 | 204 | 119 | 4,943 |
| Fillmore | 113 | 55 | 231 | 280 | 519 | 596 | 881 | 870 | 679 | 246 | 188 | 65 | 4,723 |
| Kanab | 152 | 89 | 285 | 330 | 513 | 632 | 861 | 880 | 720 | 449 | 253 | 166 | 5,330 |
| Koosharem | 62 | 11 | 137 | 202 | M | M | M | 670 | 530 | 300 | 141 | 80 | 2,133 |
| Levan | 104 | 56 | 233 | 283 | 485 | 561 | 814 | 783 | 658 | 378 | 197 | 87 | 4,639 |
| Manti | 62 | 29 | 198 | 232 | 459 | 535 | 836 | 803 | 649 | 345 | 172 | 71 | 4,391 |
| Nephi | 90 | 57 | 229 | 287 | 531 | 592 | 867 | 838 | 702 | 391 | 219 | 84 | 4,887 |
| Panguitch | 86 | 31 | 212 | 255 | 472 | 535 | 725 | 702 | 575 | 350 | 179 | 106 | 4,228 |
| Richfield Radio KSVC | 121 | 67 | 249 | 293 | 499 | 560 | 789 | 754 | 636 | 389 | 209 | 82 | 4,648 |
| ***Average*** | **98** | **48** | **215** | **261** | **481** | **561** | **809** | **779** | **626** | **347** | **185** | **92** | **4,334** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 48 | 44 | 194 | 284 | 471 | 511 | 733 | 709 | 614 | 389 | 168 | 89 | 4,254 |
| Olmstead Powerhouse | 98 | 78 | 233 | 322 | 578 | 616 | 906 | 857 | 756 | 423 | 232 | 103 | 5,202 |
| Scofield-Skyline Mine | 6 | 0 | 57 | 73 | 225 | 310 | 648 | 614 | 406 | 171 | 58 | 27 | 2,595 |
| Silver Lake Brighton | 4 | 0 | 40 | 52 | 157 | 251 | 649 | 579 | 363 | 110 | 34 | 18 | 2,257 |
| Woodruff | 2 | 1 | 20 | 176 | 345 | 384 | 678 | 641 | 501 | 268 | 115 | 41 | 3,172 |
| ***Average*** | **32** | **25** | **109** | **181** | **355** | **414** | **723** | **680** | **528** | **272** | **121** | **56** | **3,496** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 27 | 31 | 197 | 284 | 508 | 554 | 840 | 801 | 657 | 333 | 127 | 40 | 4,399 |
| Fort Duchesne | 36 | 48 | M | 343 | 545 | 564 | 842 | 775 | 680 | M | 169 | 37 | 4,039 |
| Jensen | 43 | 50 | 228 | 342 | 575 | 619 | 848 | 788 | 675 | 420 | 164 | 47 | 4,799 |
| Vernal Airport | 30 | 27 | 195 | 296 | 520 | 559 | 806 | 761 | 649 | 375 | 145 | 48 | 4,411 |
| ***Average*** | **34** | **39** | **207** | **316** | **537** | **574** | **834** | **781** | **665** | **376** | **151** | **43** | **4,412** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 140 | 144 | 345 | 401 | 702 | 778 | 1,025 | 1,008 | 841 | 512 | 263 | 95 | 6,254 |
| Blanding | 104 | 82 | 246 | 324 | 589 | 711 | 931 | 897 | 784 | 430 | 193 | 130 | 5,421 |
| Ferron | 59 | 33 | 218 | 290 | 529 | 618 | 896 | 852 | 694 | 362 | 156 | 92 | 4,799 |
| Green River Aviation | 149 | 149 | M | 440 | 650 | 710 | 961 | 910 | 792 | 458 | 249 | 100 | 5,568 |
| Hanksville | 164 | 142 | 350 | 426 | 696 | 734 | 967 | 902 | 766 | 449 | 243 | 93 | 5,932 |
| Moab | 160 | 172 | 380 | 462 | 711 | 774 | 1,007 | 951 | 806 | 514 | 279 | 121 | 6,337 |
| ***Average*** | **129** | **120** | **308** | **391** | **646** | **721** | **965** | **920** | **781** | **454** | **231** | **105** | **5,719** |

M=Missing Data. Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

## Normal Growing Degree Days Base 40, by Months, Utah, 1961-90

| Division and Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***Western*** | | | | | | | | | | | | | |
| Callao | 56 | 110 | 236 | 351 | 520 | 648 | 815 | 758 | 577 | 400 | 182 | 58 | 4,708 |
| Delta | 40 | 106 | 231 | 356 | 536 | 682 | 834 | 804 | 612 | 432 | 186 | 54 | 4,871 |
| Enterprise Beryl Jct | 71 | 117 | 234 | 356 | 498 | 600 | 737 | 724 | 567 | 428 | 207 | 88 | 4,625 |
| Eskdale | 83 | 139 | 264 | 373 | 550 | 679 | 831 | 788 | 610 | 436 | 213 | 86 | 5,051 |
| Modena | 78 | 125 | 234 | 358 | 511 | 632 | 770 | 750 | 583 | 439 | 209 | 91 | 4,779 |
| Rosette | 14 | 40 | 120 | 242 | 436 | 597 | 801 | 767 | 566 | 344 | 112 | 27 | 4,066 |
| ***Average*** | ***57*** | ***106*** | ***220*** | ***339*** | ***508*** | ***640*** | ***798*** | ***765*** | ***586*** | ***413*** | ***185*** | ***67*** | ***4,683*** |
| ***Dixie*** | | | | | | | | | | | | | |
| St. George | 212 | 294 | 437 | 575 | 748 | 861 | 1,004 | 981 | 789 | 618 | 375 | 215 | 7,107 |
| Zion Nat'l Park | 192 | 258 | 378 | 528 | 734 | 875 | 1,016 | 991 | 842 | 672 | 367 | 205 | 7,058 |
| ***Average*** | ***202*** | ***276*** | ***407*** | ***551*** | ***741*** | ***868*** | ***1,010*** | ***986*** | ***816*** | ***645*** | ***371*** | ***210*** | ***7,082*** |
| ***North Central*** | | | | | | | | | | | | | |
| Farmington USU Fld Stn | 35 | 86 | 210 | 358 | 556 | 719 | 882 | 846 | 652 | 421 | 166 | 39 | 4,970 |
| Logan USU | 16 | 38 | 122 | 269 | 487 | 672 | 865 | 836 | 605 | 368 | 111 | 24 | 4,413 |
| Ogden Pioneer PH | 32 | 77 | 190 | 345 | 571 | 752 | 923 | 890 | 672 | 437 | 158 | 41 | 5,088 |
| Pleasant Grove | 40 | 95 | 215 | 348 | 544 | 694 | 863 | 828 | 637 | 431 | 180 | 54 | 4,929 |
| Provo BYU | 41 | 90 | 239 | 410 | 578 | 743 | 882 | 855 | 667 | 438 | 191 | 56 | 5,190 |
| SLC Airport NWSFO | 34 | 87 | 203 | 345 | 563 | 747 | 927 | 895 | 675 | 437 | 172 | 41 | 5,126 |
| Tooele | 41 | 78 | 180 | 329 | 555 | 744 | 929 | 891 | 662 | 406 | 148 | 46 | 5,009 |
| Tremonton | 9 | 47 | 163 | 346 | 514 | 717 | 885 | 857 | 637 | 379 | 125 | 22 | 4,701 |
| Trenton | 10 | 41 | 153 | 322 | 442 | 595 | 724 | 696 | 532 | 371 | 119 | 25 | 4,030 |
| ***Average*** | 29 | 71 | 186 | 341 | 534 | 709 | 876 | 844 | 638 | 410 | 152 | 39 | 4,828 |
| ***South Central*** | | | | | | | | | | | | | |
| Bryce Cnyn Nat'l Pk Hq | 29 | 41 | 93 | 203 | 362 | 519 | 655 | 617 | 457 | 302 | 103 | 38 | 3,418 |
| Cedar City FAA | 75 | 120 | 211 | 334 | 524 | 687 | 853 | 828 | 640 | 435 | 203 | 94 | 5,002 |
| Escalante | 61 | 115 | 228 | 359 | 528 | 663 | 800 | 763 | 602 | 422 | 199 | 76 | 4,814 |
| Fillmore | 57 | 110 | 222 | 357 | 545 | 698 | 858 | 829 | 648 | 441 | 192 | 64 | 5,021 |
| Kanab | 138 | 195 | 292 | 410 | 587 | 719 | 859 | 837 | 689 | 520 | 287 | 160 | 5,693 |
| Koosharem | 48 | 71 | 138 | 252 | 417 | 540 | 670 | 646 | 513 | 360 | 155 | 64 | 3,875 |
| Levan | 37 | 82 | 197 | 326 | 505 | 657 | 822 | 792 | 613 | 420 | 181 | 50 | 4,683 |
| Manti | 35 | 69 | 174 | 304 | 480 | 640 | 799 | 766 | 580 | 390 | 162 | 47 | 4,445 |
| Nephi | 50 | 95 | 210 | 343 | 532 | 680 | 847 | 815 | 631 | 440 | 194 | 66 | 4,903 |
| Panguitch | 58 | 91 | 179 | 302 | 452 | 553 | 674 | 652 | 529 | 404 | 188 | 78 | 4,158 |
| Richfield Radio KSVC | 70 | 119 | 234 | 356 | 506 | 625 | 768 | 737 | 585 | 439 | 210 | 87 | 4,737 |
| ***Average*** | ***60*** | ***101*** | ***198*** | ***322*** | ***494*** | ***635*** | ***782*** | ***753*** | ***590*** | ***416*** | ***188*** | ***75*** | ***4,613*** |
| ***Northern Mountains*** | | | | | | | | | | | | | |
| Heber | 21 | 46 | 134 | 276 | 443 | 558 | 702 | 671 | 527 | 385 | 145 | 36 | 3,943 |
| Olmstead Powerhouse | 34 | 80 | 200 | 379 | 531 | 723 | 867 | 843 | 658 | 444 | 170 | 55 | 4,982 |
| Scofield-Skyline Mine | 16 | 19 | 51 | 144 | 242 | 460 | 600 | 564 | 359 | 208 | 51 | 10 | 2,723 |
| Silver Lake Brighton | 15 | 18 | 35 | 93 | 208 | 370 | 568 | 520 | 336 | 183 | 44 | 15 | 2,404 |
| Woodruff | 8 | 19 | 73 | 200 | 371 | 491 | 638 | 603 | 460 | 310 | 86 | 16 | 3,285 |
| ***Average*** | ***19*** | ***36*** | ***98*** | ***220*** | ***359*** | ***520*** | ***675*** | ***640*** | ***468*** | ***306*** | ***99*** | ***26*** | ***3,467*** |
| ***Uintah Basin*** | | | | | | | | | | | | | |
| Duchesne | 19 | 49 | 170 | 333 | 515 | 646 | 794 | 767 | 566 | 370 | 123 | 21 | 4,374 |
| Fort Duchesne | 10 | 39 | 160 | 324 | 496 | 630 | 749 | 715 | 538 | 367 | 128 | 18 | 4,173 |
| Jensen | 13 | 48 | 188 | 355 | 524 | 637 | 773 | 693 | 558 | 398 | 141 | 24 | 4,351 |
| Vernal Airport | 12 | 50 | 168 | 320 | 463 | 617 | 745 | 731 | 541 | 361 | 128 | 21 | 4,155 |
| ***Average*** | ***14*** | ***46*** | ***171*** | ***333*** | ***500*** | ***632*** | ***765*** | ***726*** | ***551*** | ***374*** | ***130*** | ***21*** | ***4,263*** |
| ***Southeast*** | | | | | | | | | | | | | |
| Arches Nat'l Pk Hq | 61 | 150 | 333 | 509 | 714 | 868 | 1,001 | 974 | 779 | 525 | 252 | 83 | 6,247 |
| Blanding | 39 | 92 | 192 | 331 | 535 | 703 | 844 | 814 | 638 | 417 | 170 | 56 | 4,831 |
| Ferron | 26 | 65 | 169 | 308 | 513 | 682 | 821 | 797 | 595 | 394 | 154 | 38 | 4,563 |
| Green River Aviation | 44 | 132 | 284 | 425 | 596 | 727 | 875 | 810 | 629 | 457 | 212 | 60 | 5,251 |
| Hanksville | 65 | 149 | 311 | 454 | 629 | 754 | 887 | 854 | 669 | 491 | 232 | 76 | 5,571 |
| Moab | 80 | 179 | 355 | 516 | 701 | 816 | 945 | 913 | 736 | 550 | 283 | 102 | 6,175 |
| ***Average*** | ***52*** | ***128*** | ***274*** | ***424*** | ***615*** | ***758*** | ***896*** | ***860*** | ***674*** | ***472*** | ***217*** | ***69*** | ***5,440*** |

Source: Utah Climate Center, Utah State University, Utah 84322-4825

## Freeze Dates and Freeze-Free Period, Utah, 1998 and Averages

| Division and Station | 1998 | | | Averages | | |
|---|---|---|---|---|---|---|
| | Last Spring Minimum of 32° or Below | First Fall Minimum of 32° or Below | Number of Days Between Dates | Last Spring Minimum of 32° or Below | First Fall Minimum of 32° or Below | Number of Days Between Dates |
| ***Western*** | | | | | | |
| Callao | Apr 27 | Oct 05 | 161 | May 17 | Sep 25 | 132 |
| Delta | May 22 | Oct 04 | 135 | May 15 | Sep 29 | 137 |
| Enterprise Beryl Jct | Jun 01 | Sep 20 | 111 | Jun 08 | Sep 14 | 98 |
| Eskdale | May 23 | Oct 04 | 134 | May 25 | Sep 24 | 123 |
| Modena | Jun 17 | Sep 28 | 103 | May 31 | Sep 22 | 115 |
| Rosette | May 23 | Oct 05 | 135 | May 19 | Sep 25 | 129 |
| ***Dixie*** | | | | | | |
| St. George | Mar 30 | Nov 10 | 225 | Apr 04 | Oct 28 | 209 |
| Zion Nat'l Park | Apr 18 | Oct 17 | 182 | Apr 16 | Oct 31 | 201 |
| ***North Central*** | | | | | | |
| Farmington USU Fld | Apr 18 | Oct 05 | 170 | May 03 | Oct 10 | 162 |
| Logan USU | Apr 19 | Oct 05 | 169 | May 06 | Oct 10 | 159 |
| Ogden Pioneer PH | Apr 18 | Nov 04 | 200 | May 02 | Oct 13 | 165 |
| Pleasant Grove | Apr 18 | Oct 06 | 171 | May 09 | Oct 10 | 156 |
| Provo BYU | Apr 18 | Oct 18 | 183 | Apr 24 | Oct 15 | 177 |
| SLC Airport NWSFO | Apr 18 | Nov 03 | 199 | Apr 27 | Oct 16 | 175 |
| Tooele | Apr 18 | Nov 03 | 199 | May 05 | Oct 14 | 164 |
| Tremonton | Apr 18 | Oct 05 | 170 | Apr 27 | Oct 09 | 168 |
| Trenton | Apr 28 | Oct 05 | 160 | May 24 | Sep 14 | 113 |
| ***South Central*** | | | | | | |
| Bryce Canyon Nat'l Pk Hq | Jun 19 | Sep 25 | 98 | Jun 17 | Sep 05 | 81 |
| Cedar City FAA | Jun 17 | Oct 04 | 109 | May 19 | Oct 01 | 137 |
| Escalante | May 15 | Oct 18 | 156 | May 16 | Oct 03 | 142 |
| Fillmore | Apr 27 | Oct 05 | 161 | May 13 | Oct 05 | 146 |
| Kanab | May 23 | Oct 17 | 147 | May 07 | Oct 18 | 166 |
| Koosharem | Jun 24 | Sep 22 | 90 | Jun 17 | Sep 06 | 81 |
| Levan | Jun 05 | Oct 05 | 122 | May 22 | Sep 29 | 130 |
| Manti | May 14 | Oct 05 | 144 | May 21 | Sep 28 | 130 |
| Nephi | Apr 21 | Oct 05 | 167 | May 14 | Sep 30 | 139 |
| Panguitch | Jun 18 | Sep 27 | 101 | Jun 21 | Sep 02 | 74 |
| Richfield Radio KSVC | May 23 | Oct 05 | 135 | May 25 | Sep 20 | 119 |
| ***Northern Mountains*** | | | | | | |
| Heber | May 23 | Oct 05 | 135 | Jun 13 | Sep 06 | 86 |
| Olmstead Powerhouse | Apr 18 | Oct 05 | 170 | May 01 | Oct 14 | 168 |
| Scofield-Skyline Mine | Jun 18 | Oct 02 | 106 | Jun 25 | Sep 10 | 77 |
| Silver Lake Brighton | Jun 27 | Sep 19 | 84 | Jul 02 | Aug 28 | 57 |
| Woodruff | Jun 20 | Sep 22 | 94 | Jun 27 | Aug 22 | 57 |
| ***Uintah Basin*** | | | | | | |
| Duchesne | Apr 21 | Oct 06 | 168 | May 22 | Sep 21 | 123 |
| Fort Duchesne | Jun 18 | Sep 27 | 101 | May 22 | Sep 21 | 123 |
| Jensen | May 15 | Oct 06 | 144 | May 19 | Sep 18 | 122 |
| Vernal Airport | Jun 11 | Oct 05 | 116 | May 26 | Sep 21 | 118 |
| ***Southeast*** | | | | | | |
| Arches Nat,l Pk Hq | Apr 17 | Nov 05 | 202 | Apr 08 | Oct 26 | 203 |
| Blanding | Apr 19 | Oct 06 | 170 | May 13 | Oct 11 | 153 |
| Ferron | May 15 | Oct 06 | 144 | May 17 | Oct 01 | 138 |
| Green River Aviation | Apr 19 | Oct 05 | 169 | May 02 | Oct 04 | 157 |
| Hanksville | Apr 19 | Oct 06 | 170 | May 06 | Oct 03 | 152 |
| Moab | Apr 08 | Oct 06 | 181 | Apr 16 | Oct 16 | 186 |

Source: Utah Climate Center, Utah State University, Logan, Utah 84322-4825

# Enterprise Budgets

Prepared by the Economics Department, Utah State University

The following crop and livestock enterprise budgets were prepared by personnel at Utah State University with input from farmers and ranchers. These budgets are provided to assist farmers and ranchers in evaluating alternatives that may increase the profitability of their operation. The costs and returns commonly vary for a particular farm or ranch from those shown. Therefore, a column has been provided to adapt the budget to reflect the costs and returns of a specific farm or ranch enterprise.

Questions concerning these budgets should be referred to the appropriate contact individual in the Economics department at Utah State University in Logan at 435-797-2310.

Budgets published in this and previous additions of Utah Agricultural Statistics as well as budgets for other crop and livestock enterprises may be found on the extension web page at Utah State University, http://ext.usu.edu/agecon/.

## *Index of Enterprise Budgets by Subject and Year Most Recently Published in Utah Agricultural Statistics*

# Jersey Dairy Budget
## Average Costs and Returns, Northern Utah, 1998

| | Units | Number of units/cow | Price or cost/unit | Value or cost per cow | Value per cwt milk | Your Dairy |
|---|---|---|---|---|---|---|
| | | | ..... Dollars ..... | | | |
| Receipts | | | | | | |
| Milk Sales | Cwt | 14,500 | 16.63 | 2,411.35 | 16.63 | |
| Sale of calves | | | | | | |
| Bulls | Head | 0.44 | 5.00 | 2.20 | 0.02 | |
| Heifers | Head | 0.44 | 100.00 | 44.00 | 0.30 | |
| Sale of cull cows | Head | 0.22 | 270.00 | 59.40 | 0.41 | |
| Other (manure, etc) | Head | 1.00 | 25.00 | 25.00 | 0.17 | |
| Total Receipts | | | | 2,541.95 | 17.53 | |
| Expenses: | | | | | | |
| Operating | | | | | | |
| Feed | | | | | | |
| Hay | Ton | 3.80 | 90.00 | 342.00 | 2.36 | |
| Corn silage | Ton | 1.50 | 25.00 | 37.50 | 0.26 | |
| Concentrates | Cwt | 76.50 | 6.25 | 478.13 | 3.30 | |
| Trucking | Head | 1.00 | 5.00 | 5.00 | 0.03 | |
| Bedding | Head | 1.00 | 3.22 | 3.22 | 0.02 | |
| Supplies | Head | 1.00 | 60.78 | 60.78 | 0.42 | |
| DHIA | Head | 1.00 | 16.00 | 16.00 | 0.11 | |
| Capitol rotation | Cwt | 14,500 | 0.10 | 14.50 | 0.10 | |
| Marketing | Cwt | 14,500 | 0.08 | 11.60 | 0.08 | |
| Milk Hauling | Cwt | 14,500 | 0.56 | 81.20 | 0.56 | |
| Dairy Commission | Cwt | 14,500 | 0.17 | 24.65 | 0.17 | |
| Utilities | Head | 1.00 | 42.60 | 42.60 | 0.29 | |
| Vet & Medicine | Head | 1.00 | 32.96 | 32.96 | 0.23 | |
| Hoof trimming | Head | 1.00 | 7.88 | 7.88 | 0.05 | |
| Breeding | Head | 1.50 | 12.00 | 18.00 | 0.12 | |
| BST | Head | 8.00 | 5.30 | 42.40 | 0.29 | |
| Interest on operating | Head | 1.00 | 10.40 | 10.40 | 0.07 | |
| Replacements | Head | 0.25 | 1,300.00 | 325.00 | 2.24 | |
| Total Operating Expenses | | | | 1,553.82 | 10.72 | |
| Allocated | | | | | | |
| Building maintenance | Head | 1.00 | 22.84 | 22.84 | 0.16 | |
| Equipment maintenance | Head | 1.00 | 37.11 | 37.11 | 0.26 | |
| Fuel & oil | Head | 1.00 | 20.54 | 20.54 | 0.14 | |
| Insurance | Head | 1.00 | 16.48 | 16.48 | 0.11 | |
| Hired labor | Head | 1.00 | 90.44 | 90.44 | 0.62 | |
| Miscellaneous | Head | 1.00 | 16.52 | 16.52 | 0.11 | |
| Property taxes | Head | 1.00 | 13.43 | 13.43 | 0.09 | |
| Total Allocated Expenses | | | | 217.36 | 1.50 | |
| Capitol & interest | | | | | | |
| Interest | Head | 1.00 | 77.79 | 77.79 | 0.54 | |
| Depreciation | Head | 1.00 | 60.46 | 60.46 | 0.42 | |
| Total Costs | | | | 1,909.43 | 13.17 | |
| Net returns to operator labor, management and equity | | | | | | |
| Above operating expenses | | | | 988.13 | 6.81 | |
| Above total costs | | | | 632.52 | 4.36 | |

**Assumptions:**

| | | | |
|---|---|---|---|
| Average number of cows in herd | 90 | Death loss | |
| Average production per cow | 14,500 | Calves | 5.00% |
| Turnover percentage | 25.00% | Cows | 3.00% |

All cows do not receive BST. All calves sold, may be to another enterprise such as heifer raising. Number of cows in herd is stable.

Budget prepared by : E. Bruce Godfrey, Clark Israelsen, Allen Young, and Ron Boman with input from local dairy operators.

# Enterprise Budget for 300 Sow Farrow to Finish Operation, Utah, 1998

| | | Number | Units | Weight | Price per unit | Total Value | Value per sow | Value per pound of carcass | Your Farm Value |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | ..... | Dollars | | ..... | |
| Returns | | | | | | | | | |
| Slaughter hogs (carcass weight) | | 5,411 | Pound | 180 | 0.48 | 467,510.00 | 1,558.37 | 0.48 | |
| Cull sows | | 81 | Pound | 400 | 0.35 | 11,340.00 | 37.80 | 0.01 | |
| Cull boars | | 7 | Pound | 450 | 0.27 | 851.00 | 2.84 | 0.00 | |
| Total Returns | | | | | | 479,701.00 | 1,599.00 | 0.49 | |
| Operating costs | | | | | | | | | |
| Feed | | | | | | | | | |
| Lactation | | 2,115 | Cwt | | 7.50 | 15,860.00 | 52.87 | 0.02 | |
| Gestation | | 4,914 | Cwt | | 7.00 | 34,398.00 | 114.66 | 0.04 | |
| Boar Feed | | 438 | Cwt | | 7.10 | 3,110.00 | 10.37 | 0.00 | |
| Baby pig | | 272 | Cwt | | 25.00 | 6,804.00 | 22.68 | 0.01 | |
| Starter | | 3,305 | Cwt | | 8.50 | 28,091.00 | 93.64 | 0.03 | |
| Finisher | | 35,472 | Cwt | | 8.50 | 230,585.00 | 768.55 | 0.24 | |
| Marketing/hauling | | 5,489 | Hog | | 2.00 | 10,998.00 | 36.66 | 0.01 | |
| Utilities | | 1 | per sow | | 45.00 | 13,500.00 | 45.00 | 0.01 | |
| Vet and Medicine | | 1 | per sow | | 5.00 | 1,500.00 | 5.00 | 0.00 | |
| Semen | | 1 | per sow | | 8.00 | 2,400.00 | 8.00 | 0.00 | |
| Machinery (fuel, lube & repair) | | 1 | per sow | | 11.00 | 3,300.00 | 11.00 | 0.00 | |
| Vehicles (fuel & repair) | | 1 | per sow | | 12.00 | 3,600.00 | 12.00 | 0.00 | |
| Equipment repair | | 1 | per sow | | 13.00 | 3,800.00 | 13.00 | 0.00 | |
| Housing repair | | 1 | per sow | | 75.00 | 22,500.00 | 75.00 | 0.02 | |
| Hired labor | | 4,000 | Hour | | 9.00 | 38,000.00 | 120.00 | 0.04 | |
| Interest on operating | 33,383 | 33,383 | per sow | @ 10% | | 3,338.00 | 11.13 | 0.00 | |
| Miscellaneous. | | 1 | per sow | | 10.00 | 3,000.00 | 10.00 | 0.00 | |
| Total Operating Costs | | | | | | 422,864.00 | 1,409.55 | 0.43 | |
| Ownership costs | | | | | | | | | |
| Depreciation and interest | | | | | | | | | |
| Breeding livestock | | 1 | per sow | | 6.50 | 1,950.00 | 6.50 | 0.00 | |
| Housing & Improvements | | 1 | per sow | | 275.0 | 82,500.00 | 275.00 | 0.08 | |
| Machinery | | 1 | per sow | | 15.00 | 4,500.00 | 15.00 | 0.00 | |
| Equipment & Vehicles | | 1 | per sow | | 60.00 | 18,000.00 | 60.00 | 0.02 | |
| Total Ownership Costs | | | | | | 108,950.00 | 356.50 | 0.00 | |
| Total Costs | | | | | | 529,814.00 | 1,766.05 | 0.54 | |
| Net returns to owner for labor, management and equity | | | | | | | | | |
| Above operating expenses | | | | | | 56,837.00 | 189.00 | 0.06 | |
| Above total costs | | | | | | (50,113.00) | (167.00) | (0.05) | |

**Assumptions:**

| | |
|---|---|
| Number of Sows | 300 |
| Pigs per litter | 9 |
| Litters per year | 2.4 |
| Death rate | |
| Pigs | 15.00% |
| Sows | 3.00% |
| Boars | 2.00% |
| Replacement rate | |
| Sows | 30.00% |
| Boars | 33.00% |
| Number of sows per boar | 15 |

| Feed | Days | Pounds/head per day |
|---|---|---|
| Lactation | 53 | 13.3 |
| Gestation | 312 | 5.25 |
| Boar Feed | 365 | 6 |
| Baby pig | 21 | 0.2 |
| Starter | 40 | 1.5 |
| Finisher | 140 | 4.6 |

Slaughter hogs sold on a carcass weight basis (weight and grade)

Number of sows is stable

Budget prepared by: E. Bruce Godfrey and Haven Hendricks with input from Utah producers. Adapted from budget prepared at University of Idaho (EBB-SW1-98).

## Safflower Budget
## Estimated Costs and Returns for Non Irrigated Safflower Production
## 500 Acres, Per Acre Basis, Box Elder County, Utah, 1998

| Item | Unit | Quantity | Price | | Total | Your Farm |
|---|---|---|---|---|---|---|
| | | | Dollars | | | |
| Receipts: | | | | | | |
| Safflower | Lb | 1,000 | 0.12 | | 120.00 | |
| Costs: | | | | | | |
| Purchases: | | | | | | |
| Seed | Lb | 15 | 0.41 | | 6.15 | |
| Nitrogen | Lb | 50 | 0.22 | | 11.00 | |
| Treflan | Pint | 1 | 2.48 | | 2.48 | |
| Total Purchases | | | | | 19.63 | |

| Operations: | Times | Ownership | Operating | Labor | Total | |
|---|---|---|---|---|---|---|
| | | | Dollars | | | |
| Spring plow with chisels | 1 | 2.01 | 2.66 | 0.65 | 5.32 | |
| Cultaweeding | 3 | 1.56 | 2.15 | 0.45 | 7.28 | |
| Field Cultivator | 2 | 1.25 | 2.10 | 0.65 | 5.25 | |
| Fert & Chem Application | 1 Custom | | | | 4.00 | |
| Cultaweeding and plant | 1 | 2.90 | 4.05 | 0.45 | 7.40 | |
| Combining | 1 Custom | | | | 24.00 | |
| Hauling @ $0.25 per cwt | | | | | 2.50 | |
| Total Operations | | | | | 55.75 | |
| Interest on operating loan for 6 months @ 10% | | | | | 2.79 | |
| Total listed costs | | | | | 78.17 | |
| Net returns to land and management | | | | | 41.83 | |
| Breakeven price per pound | | | | | 0.078 | |

Budget prepared by Lyle Holmgren with input from farmers in Box Elder County.

# Dairy Manure and Waste Water Disposal Budget
## Average Costs and Returns, Utah, 1998

| | Units | Number | Price | Value per cow | Value per cwt of milk | Total | Your Values |
|---|---|---|---|---|---|---|---|
| | | | | Dollars | | | |
| Returns (manure credit) | | | | | | | |
| Nitrogen | Pound | 11,070 | 0.02 | 19.25 | 0.11 | 2,214.00 | |
| Phosphorous | Pound | 16,948 | 0.25 | 38.84 | 0.20 | 4,237.00 | |
| Total Returns | | | | 56.10 | 0.31 | 6,451.00 | |
| Costs: | | | | | | | |
| Cash costs | | | | | | | |
| Fuel and lubrication | | | | 20.67 | 0.11 | 2,377.00 | |
| Equipment repairs | | | | 19.31 | 0.11 | 2,221.00 | |
| Labor (hired and owner) | Hour | 1,350 | 7.00 | 84.40 | 0.46 | 9,706.00 | |
| Interest on debt | | | | 7.83 | 0.04 | 900.00 | |
| Total Cash Costs | | | | 132.21 | 0.72 | 15,204.00 | |
| Non-cash costs | | | | | | | |
| Depreciation & interest on facility and equipment | | | | 60.96 | 0.33 | 7,010.00 | |
| Property taxes on facilities | | | | 6.52 | 0.04 | 750.00 | |
| Total Non-cash Costs | | | | 67.48 | 0.37 | 7,760.00 | |
| Total Costs | | | | 199.69 | 1.09 | 22,964.00 | |
| Net Returns | | | | (143.59) | (0.79) | (16,513.00) | |

**Assumptions:**

| | |
|---|---|
| Number of holstein cows in herd | 115 |
| Milk production per cow per year (lbs) | 18,250 |
| Wash water (gallons per day) | 750 |
| Equipment used | Cost |
| John Deere 7800 | $75,000 |
| John Deere 5510 with loader | $25,000 |
| Honey Wagon | $15,000 |
| Scraper | $2,000 |
| Cost of new waste facility | $75,000 |
| Cost share | $56,250 |

Budget prepared by : E. Bruce Godfrey and Spencer Birch with input provided by dairymen who recently installed waste management facitities. Analysis derived using D-Waste program from Washington State University.

# Costs of Alternative Methods for Disposing of Wheat Straw Residue
## Box Elder County, Utah, 1997

| | Total Farm | | Grain | | | | Your Cost |
|---|---|---|---|---|---|---|---|
| | Hours | Annual Cost | Total Hours | Total Cost | Cost//Hour | Cost/Acre | |
| | | Dollars | | ..... Dollars ..... | | | |
| Conventional Tillage | | | | | | | |
| 150 HP 4WD | 645 | 23,204.00 | 154 | 5,540.00 | 36.00 | 37.00 | |
| 16'offset disk (twice) | 56 | 2,324.00 | 40 | 1,660.00 | 42.00 | 11.00 | |
| 4 bottom 18" moldboard plow | 80 | 1,546.00 | 64 | 1,237.00 | 19.00 | 8.00 | |
| 14X55' land plane (twice) | 70 | 2,389.00 | 50 | 1,706.00 | 34.00 | 11.00 | |
| Application of Nitrogen 1/ | 0 | 0.00 | 20 | 600.00 | 30.00 | 4.00 | |
| Total Cost - Conventional Tillage | | | | 10,743.00 | 161.00 | 71.62 | |
| Baling Straw | | | | | | | |
| Receipts | | | | | | | |
| Straw Sales $25/Ton (1.5 ton/acre) | | | | (5,625.00) | | | |
| Expenses | | | | | | | |
| 150 HP 4WD | 767 | 25,945.00 | 192 | 6,495.00 | 34.00 | 43.00 | |
| 16'offset disk (twice) | 56 | 2,324.00 | 40 | 1,660.00 | 42.00 | 11.00 | |
| 4 bottom 18" moldboard plow | 80 | 1,546.00 | 64 | 1,237.00 | 19.00 | 8.00 | |
| 14X55' land plane (twice) | 70 | 2,389.00 | 50 | 1,706.00 | 34.00 | 11.00 | |
| Custom Baling | | 2,700.00 | | 2,700.00 | | 18.00 | |
| Loader Attachment on Tractor | 73 | 987.00 | 38 | 514.00 | 14.00 | 3.00 | |
| 2-ton Flat Bed Truck | 25 | 917.00 | 5 | 183.00 | 37.00 | 1.00 | |
| Total Expenses | | | | 14,495.00 | 179.00 | 96.63 | |
| Net Cost - Baling Straw | | | | 8,870.0 | | 59.13 | |
| Burning Straw | | | | | | | |
| 150 HP 4WD | 600 | 22,147.00 | 43 | 1,587.00 | 37.00 | 11.00 | |
| 16' offset disk (once) | 33 | 2,122.00 | 18 | 1,157.00 | 64.00 | 8.00 | |
| 14X55' land plane (once) | 45 | 2,258.00 | 25 | 1,254.00 | 50.00 | 8.00 | |
| Total Cost - Burning Straw | | | | 3,999.00 | 151.00 | 26.66 | |

1/ Commercial application.
Assumptions: Costs are calculated assuming the farm consists of 350 total acres 150 of which is irrigated wheat, and the straw is disposed of and the seed bed is prepared for planting the next crop.

Budget prepared by Yasmin O. Adam and Devon Bailey

## Rates Charged by Custom Operators Budget, Utah, 1998

| Custom Operation | Unit | Number Responding | Average Rate Charged | Your Farm |
|---|---|---|---|---|
| | | | Dollars | |
| Baling hay | | | | |
| one ton square | Bale | 5 | 11.40 | |
| Intermediate square | Bale | 9 | 5.31 | |
| standard square | Bale | 18 | 0.37 | |
| large round | Bale | 4 | 6.25 | |
| Combine small grain | Acre | 24 | 28.24 | |
| Discing | | | | |
| hourly rate | Hour | 5 | 46.00 | |
| rate per acre | Acre | 9 | 10.39 | |
| Haul grain | Ton | 3 | 6.00 | |
| Harrow | Acre | 3 | 9.00 | |
| Haul hay (standard square) | Bale | 9 | 0.29 | |
| Land leveling | Hour | 5 | 12.70 | |
| Laser leveling | Hour | 3 | 87.50 | |
| Planting | | | | |
| corn | Acre | 6 | 12.25 | |
| Small grains | Acre | 11 | 12.68 | |
| Plowing moldboard and disk | | | | |
| hourly rate | Hour | 5 | 49.60 | |
| rate per acre | Acre | 5 | 20.44 | |
| Raking hay | Acre | 4 | 3.63 | |
| Ripping | Acre | 4 | 21.17 | |
| Spraying (excludes materials) | Acre | 11 | 7.14 | |
| Swathing hay | Acre | 22 | 21.17 | |

Data for other operations were also obtained from custom operators but are not included in the table above because less than three operators reported activity for that operation. Additional detail and other operations will be included in a forthcoming extension publication on custom operations in Utah. Local conditions and/or accomplishment rates (e.g. acres per hour) may result in rates that differ from those shown.

Rates prepared by E. Bruce Godfrey.

## Per Capita Consumption: Average annual per capita consumption, United States, selected periods

| Item | Unit | 1972-76 | 1977-81 | 1982-86 | 1987-91 | 1992-96 | 1997 |
|---|---|---|---|---|---|---|---|
| Meat, poultry, and fish 1/ | Pounds | 175.3 | 179.2 | 181.3 | 185.0 | 191.4 | 190.3 |
| Red meats 2/ | " | 128.6 | 127.2 | 122.9 | 115.4 | 113.7 | 111.0 |
| Beef | " | 81.7 | 77.4 | 73.9 | 66.1 | 63.5 | 63.8 |
| Veal | " | 2.0 | 1.7 | 1.5 | 1.0 | 0.8 | 0.9 |
| Pork | " | 43.3 | 47.0 | 46.5 | 47.2 | 48.6 | 45.6 |
| Lamb and mutton | " | 1.6 | 1.0 | 1.1 | 1.0 | 0.9 | 0.8 |
| Poultry | " | 34.3 | 39.2 | 44.4 | 54.3 | 62.8 | 64.8 |
| Chicken | " | 27.5 | 31.7 | 35.4 | 41.3 | 48.6 | 50.9 |
| Turkey | " | 6.8 | 7.5 | 9.0 | 13.0 | 14.2 | 13.9 |
| Fish and shellfish | " | 12.5 | 12.8 | 14.0 | 15.3 | 14.9 | 14.5 |
| Eggs | Number | 284.0 | 270.1 | 258.5 | 241.1 | 236.2 | 238.7 |
| All dairy products, including butter 3/ | Pounds | 545.6 | 543.3 | 578.9 | 576.3 | 577.2 | 579.8 |
| Beverage milks | Gallons | 30.0 | 28.1 | 26.4 | 25.9 | 24.7 | 24.0 |
| Plain | " | 28.2 | 26.4 | 24.9 | 24.3 | 23.2 | 22.5 |
| Whole | " | 21.3 | 17.3 | 14.3 | 11.1 | 8.8 | 8.2 |
| 2 percent fat | " | 4.5 | 6.1 | 7.5 | 8.9 | 8.5 | 7.7 |
| 1 percent fat | " | 1.0 | 1.7 | 1.7 | 2.1 | 2.5 | 2.6 |
| Skim | " | 1.5 | 1.3 | 1.4 | 2.2 | 3.4 | 4.0 |
| Flavored | " | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.2 |
| Whole | " | 0.8 | 0.6 | 0.4 | 0.4 | 0.3 | 0.3 |
| Lowfat and skim | " | 0.4 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 |
| Buttermilk | " | 0.6 | 0.5 | 0.5 | 0.4 | 0.3 | 0.3 |
| Yogurt | ½ pints | 3.0 | 4.5 | 6.4 | 7.8 | 8.5 | 9.5 |
| Fluid cream products | " | 9.9 | 10.4 | 12.6 | 14.4 | 15.5 | 17.0 |
| Cheese 4/ | Pounds | 14.1 | 17.1 | 21.5 | 24.3 | 26.8 | 28.0 |
| American 5/ | " | 8.2 | 9.6 | 11.8 | 11.4 | 11.6 | 12.0 |
| Cheddar | " | 6.2 | 6.9 | 9.4 | 9.5 | 9.1 | 9.6 |
| Italian | " | 3.0 | 4.2 | 5.9 | 8.5 | 10.3 | 11.0 |
| Mozzarella | " | 1.9 | 2.8 | 4.2 | 6.4 | 7.9 | 8.4 |
| Other 6/ | " | 2.9 | 3.3 | 3.8 | 4.3 | 4.9 | 5.1 |
| Cream and Neufchatel | " | 0.7 | 0.9 | 1.2 | 1.6 | 2.1 | 2.3 |
| Frozen dairy products 7/ | " | 28.0 | 26.8 | 27.3 | 28.4 | 29.2 | 28.7 |
| Ice cream | " | 17.8 | 17.5 | 18.1 | 16.8 | 16.0 | 16.2 |
| Lowfat ice cream 8/ | " | 7.5 | 7.3 | 6.9 | 7.8 | 7.3 | 7.9 |
| Sherbet | " | 1.5 | 1.3 | 1.3 | 1.2 | 1.3 | 1.3 |
| Frozen yogurt | " | NA | NA | NA | NA | 3.2 | 2.1 |
| Condensed and evaporated milk | " | 9.4 | 7.5 | 7.4 | 7.9 | 7.6 | 6.6 |
| Skim milk | " | 3.9 | 3.4 | 3.6 | 4.6 | 4.9 | 4.0 |
| Whole milk | " | 5.6 | 4.0 | 3.8 | 3.3 | 2.7 | 2.6 |
| Nonfat dry milk | " | 4.1 | 3.0 | 2.3 | 2.5 | 3.2 | 3.4 |
| Dried whey | " | 2.1 | 2.6 | 3.3 | 3.6 | 3.6 | 3.4 |
| Fats and oils, fat content 9/ | " | 53.4 | 55.8 | 61.7 | 63.2 | 67.8 | 65.6 |
| Vegetable fat | " | 41.8 | 44.4 | 49.3 | 52.9 | 56.8 | 55.4 |
| Animal fat | " | 11.6 | 11.4 | 12.4 | 10.2 | 11.0 | 10.3 |
| Fats and oils, product weight | " | 56.6 | 58.9 | 64.8 | 66.2 | 70.7 | 68.2 |
| Butter | " | 4.7 | 4.4 | 4.7 | 4.4 | 4.5 | 4.2 |
| Margarine | " | 11.3 | 11.2 | 10.8 | 10.5 | 10.1 | 8.6 |
| Lard (direct use) 10/ | " | 3.3 | 2.5 | 2.0 | 1.8 | 2.0 | 2.3 |
| Edible tallow (direct use) 10/ | " | NA | NA | 1.8 | 0.8 | 2.5 | 2.4 |
| Shortening | " | 17.3 | 18.0 | 20.7 | 21.8 | 23.3 | 20.9 |
| Salad and cooking oils | " | 18.0 | 20.6 | 23.2 | 25.6 | 26.6 | 28.7 |
| Other edible fats and oils 11/ | " | 2.1 | 1.7 | 1.6 | 1.3 | 1.5 | 1.1 |

See footnotes at end of table.

## Per Capita Consumption: Average annual per capita consumption, United States, selected periods (continued)

| Item | Unit | 1972-76 | 1977-81 | 1982-86 | 1987-91 | 1992-96 | 1997 |
|---|---|---|---|---|---|---|---|
| Total fruit and vegetables (farm weight) | Pounds | 579.5 | 597.0 | 619.0 | 651.9 | 686.4 | 710.8 |
| Total Fruit | " | 241.9 | 260.0 | 270.5 | 275.5 | 282.6 | 294.7 |
| Fresh fruit | " | 98.0 | 102.3 | 111.6 | 118.9 | 125.7 | 133.2 |
| Citrus | " | 27.8 | 25.0 | 23.9 | 22.7 | 24.9 | 26.8 |
| Noncitrus | " | 70.2 | 77.4 | 87.7 | 96.3 | 100.8 | 106.4 |
| Processed fruit | " | 143.9 | 157.7 | 158.9 | 156.6 | 156.9 | 161.5 |
| Frozen fruit, noncitrus | " | 3.3 | 3.0 | 3.1 | 3.7 | 3.7 | 3.5 |
| Dried fruit, noncitrus | " | 10.1 | 9.6 | 12.1 | 12.9 | 12.1 | 10.8 |
| Canned fruit, noncitrus | " | 24.0 | 23.3 | 20.8 | 20.8 | 20.2 | 20.5 |
| Selected fruit juices | " | 106.0 | 121.1 | 122.5 | 118.8 | 120.5 | 126.1 |
| Citrus | " | 93.5 | 102.9 | 97.0 | 88.2 | 88.1 | 95.1 |
| Noncitrus | " | 12.4 | 18.3 | 25.5 | 30.6 | 32.4 | 31.0 |
| Total vegetables | " | 337.6 | 337.0 | 348.5 | 376.4 | 403.7 | 416.0 |
| Fresh vegetables | " | 146.9 | 145.4 | 152.7 | 167.3 | 175.4 | 185.6 |
| Potatoes | " | 52.3 | 48.5 | 48.1 | 48.9 | 49.5 | 47.9 |
| Other | " | 94.6 | 97.0 | 104.6 | 118.3 | 126.0 | 137.7 |
| Processed vegetables | " | 190.7 | 191.5 | 195.8 | 209.1 | 228.3 | 230.4 |
| Vegetables for canning | " | 100.7 | 99.8 | 98.7 | 104.1 | 110.0 | 105.9 |
| Tomatoes | " | 62.4 | 61.8 | 63.3 | 69.7 | 74.7 | 72.7 |
| Other | " | 38.2 | 38.0 | 35.4 | 34.3 | 35.3 | 33.2 |
| Vegetables for freezing | " | 51.6 | 56.8 | 60.4 | 67.7 | 77.8 | 81.5 |
| Potatoes | " | 35.8 | 40.0 | 42.6 | 47.1 | 55.5 | 59.0 |
| Other | " | 15.8 | 16.7 | 17.7 | 20.5 | 22.3 | 22.5 |
| Dehydrated vegetables and chips 12/ | " | 31.5 | 28.8 | 30.0 | 30.5 | 32.3 | 34.5 |
| Pulses 13/ | " | 7.0 | 6.3 | 6.8 | 6.9 | 8.2 | 8.5 |
| | | | | | | | |
| Tree nuts (shelled basis) | " | 1.8 | 1.8 | 2.3 | 2.3 | 2.2 | 2.2 |
| Peanuts (kernel basis) | " | 5.8 | 5.6 | 6.1 | 6.6 | 5.9 | 5.8 |
| Flour and cereal products | " | 137.4 | 142.9 | 152.7 | 177.4 | 192.4 | 200.1 |
| Wheat flour | " | 113.4 | 116.0 | 120.8 | 132.8 | 143.4 | 149.7 |
| Rye flour | " | 1.1 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 |
| Rice (milled basis) | " | 7.2 | 8.6 | 10.2 | 15.3 | 18.6 | 19.5 |
| Corn products 14/ | " | 10.3 | 12.7 | 16.2 | 21.8 | 22.5 | 23.1 |
| Oat products 15/ | " | 4.5 | 3.9 | 3.9 | 6.0 | 6.5 | 6.5 |
| Barley products 16/ | " | 0.9 | 1.0 | 1.0 | 0.8 | 0.7 | 0.7 |
| Calorie sweeteners 17/ | " | 122.9 | 124.4 | 124.5 | 134.5 | 146.7 | 154.1 |
| Refined cane and beet sugar | " | 96.3 | 87.6 | 66.7 | 63.1 | 65.2 | 66.5 |
| Corn sweeteners | " | 25.3 | 35.5 | 56.5 | 70.0 | 80.1 | 86.2 |
| High fructose corn syrup | " | 3.6 | 15.4 | 37.2 | 49.0 | 56.3 | 62.4 |
| Cocoa (chocolate liquor equivalent) 18/ | " | 3.1 | 2.7 | 3.4 | 4.1 | 4.1 | 4.1 |
| Coffee | Gallons | 32.8 | 26.8 | 26.8 | 26.5 | 22.7 | 23.5 |
| Tea | " | 7.5 | 7.2 | 7.0 | 7.0 | 8.1 | 7.4 |
| Carbonated soft drinks | " | 28.1 | 34.4 | 35.6 | 45.2 | 50.7 | 53.0 |
| Regular | " | 25.1 | 29.6 | 29.1 | 34.7 | 39.0 | 41.4 |
| Diet | " | 3.0 | 4.9 | 6.5 | 10.5 | 11.7 | 11.6 |
| Fruit juices | " | 6.5 | 6.9 | 7.9 | 7.8 | 8.7 | 9.2 |
| Bottled water | " | NA | 2.1 | 4.0 | 7.1 | 10.5 | 13.1 |
| Beer | " | 20.6 | 23.6 | 24.1 | 23.7 | 22.4 | 22.0 |
| Wine | " | 1.7 | 2.0 | 2.3 | 2.1 | 1.8 | 2.0 |
| Distilled spirits | " | 1.9 | 2.0 | 1.8 | 1.5 | 1.3 | 1.2 |

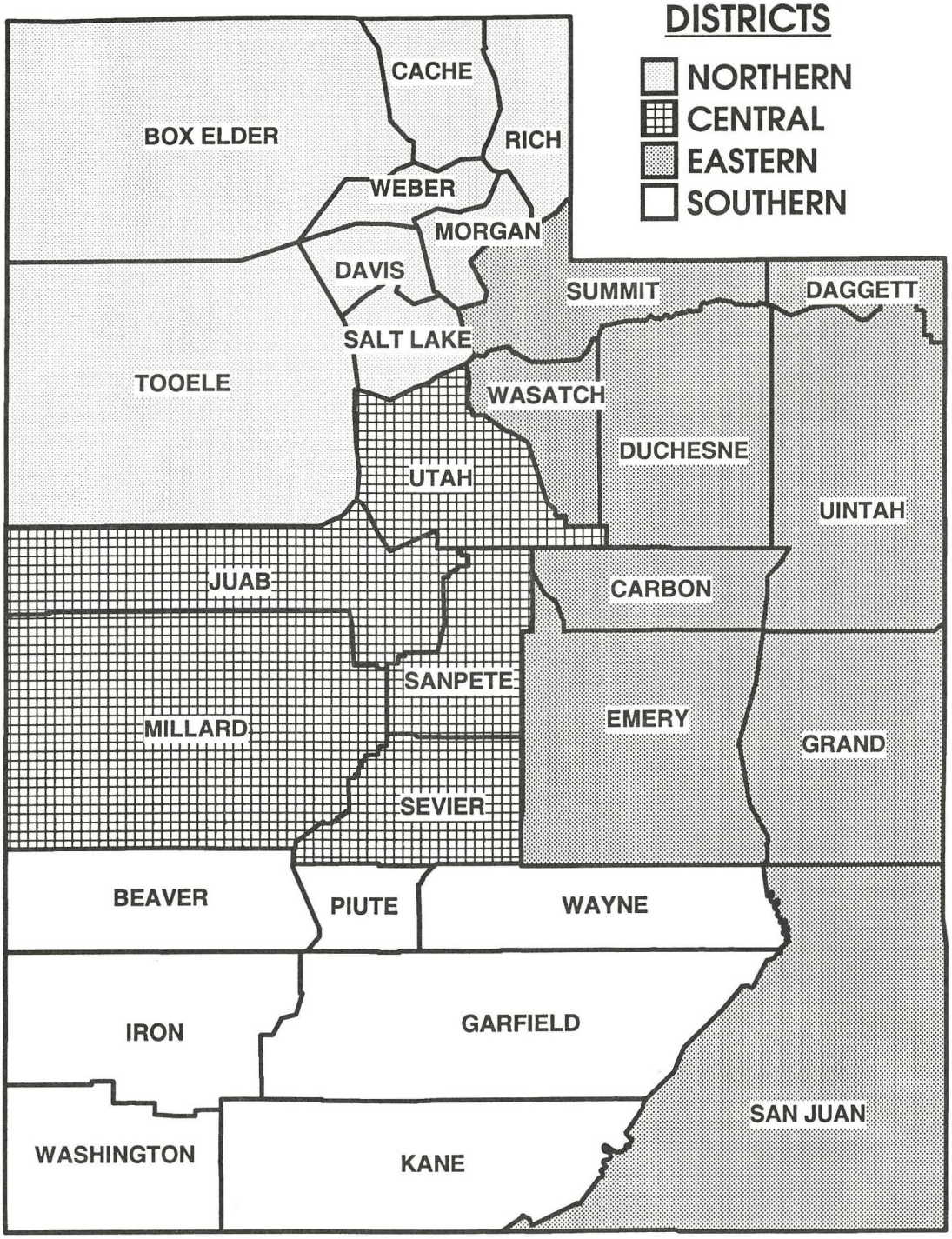
Notes: NA=Not Available. Totals may not add due to rounding. Source: USDA/Economic Research Service.
1/ Boneless, trimmed equivalent. 2/ Excludes edible offals. 3/ Milk equivalent, milkfat basis. Items shown separately are product-weight or liquid measure basis. 4/ Natural equivalent of cheese and cheese products. Excludes full-skim American, cottage, pot, and baker's cheese. 5/ Cheddar, Colby, washed curd, stirred curd, Monterey, and Jack. 6/ Swiss, brick, Muenster, blue, and other miscellaneous cheeses. 7/ Includes mellorine until 1990, and nonstandardized frozen dairy products not listed separately. 8/ Formerly known as ice milk. 9/ Fat content of butter and margarine calculated as 80 percent of product weight. 10/ Excludes use in margarine and shortening. 11/ Specialty fats used mainly in confectionery products and non-dairy creamers. 12/ Potatoes and dehydrated onions. 13/ Dry peas, lentils, and dry edible beans. 14/ Corn flour, meal, hominy, grits, and cornstarch; excludes corn sweeteners. 15/ Oatmeal, oat cereal, oat flour, and oat bran. 16/ Barley flour, pearl barley, and malt and malt extract. 17/ Dry weight. Includes honey and edible syrups. 18/ Chocolate liquor is what remains after cocoa beans have been toasted and dehulled; it is sometimes called ground or bitter chocolate.

## Farm Real Estate: Average value per acre, by Region and State, January 1, 95-99

| State | 1995 | 1996 | 1997 | 1998 | 1999 | Change 98-99 |
|---|---|---|---|---|---|---|
| | | | Dollars | | | |
| **Northeast** | **2,200** | **2,220** | **2,240** | **2,280** | **2,320** | **1.8** |
| Connecticut | 5,950 | 5,950 | 5,950 | 5,950 | 6,100 | 2.5 |
| Delaware | 2,440 | 2,550 | 2,580 | 2,660 | 2,750 | 3.4 |
| Maine | 1,130 | 1,150 | 1,170 | 1,190 | 1,200 | 0.8 |
| Maryland | 3,100 | 3,110 | 3,150 | 3,180 | 3,300 | 3.8 |
| Massachusetts | 5,060 | 5,100 | 5,150 | 5,210 | 5,400 | 3.6 |
| New Hampshire | 2,250 | 2,250 | 2,250 | 2,250 | 2,250 | 0.0 |
| New Jersey | 7,000 | 7,100 | 7,100 | 7,000 | 7,000 | 0.0 |
| New York | 1,280 | 1,260 | 1,250 | 1,280 | 1,280 | 0.0 |
| Pennsylvania | 2,200 | 2,270 | 2,300 | 2,390 | 2,440 | 2.1 |
| Rhode Island | 6,500 | 6,500 | 6,500 | 6,500 | 6,500 | 0.0 |
| Vermont | 1,450 | 1,490 | 1,500 | 1,520 | 1,550 | 2.0 |
| **Lake States** | **1,050** | **1,130** | **1,200** | **1,280** | **1,320** | **3.1** |
| Michigan | 1,330 | 1,420 | 1,530 | 1,670 | 1,730 | 3.6 |
| Minnesota | 950 | 1,030 | 1,090 | 1,160 | 1,190 | 2.6 |
| Wisconsin | 1,040 | 1,130 | 1,170 | 1,240 | 1,280 | 3.2 |
| **Corn Belt** | **1,430** | **1,510** | **1,610** | **1,730** | **1,770** | **2.3** |
| Illinois | 1,820 | 1,900 | 1,980 | 2,130 | 2,190 | 2.8 |
| Indiana | 1,620 | 1,740 | 1,870 | 2,060 | 2,110 | 2.4 |
| Iowa | 1,350 | 1,450 | 1,600 | 1,700 | 1,700 | 0.0 |
| Missouri | 880 | 950 | 1,010 | 1,070 | 1,100 | 2.8 |
| Ohio | 1,750 | 1,820 | 1,890 | 2,040 | 2,100 | 2.9 |
| **Northern Plains** | **453** | **463** | **481** | **499** | **505** | **1.2** |
| Kansas | 535 | 553 | 565 | 577 | 580 | 0.5 |
| Nebraska | 580 | 610 | 620 | 645 | 660 | 2.3 |
| North Dakota | 373 | 383 | 390 | 401 | 400 | -0.2 |
| South Dakota | 302 | 310 | 325 | 348 | 355 | 2.0 |
| **Appalachian** | **1,430** | **1,550** | **1,630** | **1,720** | **1,780** | **3.5** |
| Kentucky | 1,250 | 1,300 | 1,350 | 1,450 | 1,500 | 3.4 |
| North Carolina | 1,750 | 1,900 | 2,000 | 2,080 | 2,160 | 3.8 |
| Tennessee | 1,340 | 1,530 | 1,650 | 1,810 | 1,870 | 3.3 |
| Virginia | 1,720 | 1,840 | 1,880 | 1,920 | 1,990 | 3.6 |
| West Virginia | 920 | 980 | 1,050 | 1,090 | 1,110 | 1.8 |
| **Southeast** | **1,520** | **1,580** | **1,630** | **1,700** | **1,740** | **2.4** |
| Alabama | 1,260 | 1,320 | 1,360 | 1,440 | 1,490 | 3.5 |
| Florida | 2,110 | 2,150 | 2,200 | 2,240 | 2,260 | 0.9 |
| Georgia | 1,260 | 1,360 | 1,430 | 1,510 | 1,560 | 3.3 |
| South Carolina | 1,340 | 1,360 | 1,400 | 1,480 | 1,520 | 2.7 |
| **Delta States** | **973** | **1,020** | **1,070** | **1,130** | **1,150** | **1.8** |
| Arkansas | 983 | 1,010 | 1,070 | 1,150 | 1,180 | 2.6 |
| Louisiana | 1,080 | 1,180 | 1,190 | 1,210 | 1,200 | -0.8 |
| Mississippi | 886 | 917 | 980 | 1,050 | 1,080 | 2.9 |
| **Southern Plains** | **529** | **541** | **557** | **596** | **598** | **0.3** |
| Oklahoma | 547 | 547 | 570 | 610 | 610 | 0.0 |
| Texas | 525 | 540 | 554 | 593 | 595 | 0.3 |
| **Mountain** | **362** | **383** | **399** | **415** | **422** | **1.7** |
| Arizona 1/ | 840 | 880 | 920 | 987 | 1,020 | 3.3 |
| Colorado | 520 | 558 | 590 | 618 | 630 | 1.9 |
| Idaho | 840 | 900 | 960 | 1,020 | 1,060 | 3.9 |
| Montana | 277 | 289 | 291 | 294 | 296 | 0.7 |
| Nevada 1/ | 289 | 332 | 366 | 392 | 405 | 3.3 |
| New Mexico 1/ | 209 | 212 | 215 | 217 | 219 | 0.9 |
| Utah 1/ | 710 | 740 | 780 | 807 | 815 | 1.0 |
| Wyoming | 192 | 206 | 215 | 222 | 220 | -0.9 |
| **Pacific** | **1,540** | **1,670** | **1,730** | **1,780** | **1,800** | **1.1** |
| California | 2,220 | 2,400 | 2,500 | 2,610 | 2,630 | 0.8 |
| Oregon | 844 | 928 | 960 | 960 | 970 | 1.0 |
| Washington | 1,070 | 1,120 | 1,160 | 1,190 | 1,200 | 0.8 |
| **48 States** | **844** | **887** | **926** | **974** | **992** | **1.8** |

1/ Excludes Native American Reservation Land.

# UTAH COUNTIES AND DISTRICTS



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