

**2002 UTAH AGRICULTURAL STATISTICS  
AND  
UTAH DEPARTMENT OF AGRICULTURE AND FOOD  
ANNUAL REPORT**





*Michael O. Leavitt  
Governor,  
State of Utah*



Much has been said about America's heroes this year. We saw how unselfish our police and fire personnel can be during times of crisis. Many of us shed a tear when we saw the Ground Zero flag presented during opening ceremonies of the 2002 Winter Olympics.

Another group of heroes is worthy of attention -- our Utah farmers and ranchers. This past year has been a time of crisis for them. And they have risen to the task.

This year began with the continuation of a severe drought. In March a record number of crop-consuming crickets and grasshoppers began hatching. There was a late season frost in May that wiped out the fruit crop, and high winds blew away freshly planted seeds in some areas.

Despite these challenges, farmers picked up the pieces and did what they do best -- farm the land for the rest of us who depend on the food they produce. These are heroic people who are rarely recognized for what they do.

On behalf of the people of Utah, I want to thank Utah's farmers and ranchers for the services they provide. I thank them for their dedication to the land, and hope the declaration of disaster that I and U.S. Secretary of Agriculture, Ann Veneman, declared can offset some of the losses.

I also congratulate Commissioner Cary Peterson for the help and advice he is offering farmers and ranchers during these tough times. We will get through it if we continue to work together.

Sincerely,

A handwritten signature in black ink that reads "Michael O. Leavitt". The signature is written in a cursive, flowing style.

Michael O. Leavitt, Governor  
State of Utah

# Introduction

The Utah Agricultural Statistics Service (the Utah office of the National Agricultural Statistics Service [NASS] and the Utah Department of Agriculture and Food are proud to provide the 32 edition of this publication. Funding cuts within the state of Utah have required us to economize on this year's publication. There will not be as many copies of this publication available as in the past. However copies of the publication are also available on both of our Internet sites and also on a CD. Information in 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 2001 and normal are included in the publication. Also included are budgets for helping farmers and ranchers evaluate the potential profitability of various agricultural commodities.

Estimates presented in the publication are current for 2001 production, and January 1, 2002 inventories. Data users that need 2002 production information or additional historic data should contact the Utah Agricultural Statistics Service, at 524-5003 or 1-800-747-8522.

State and U. S. statistics are available on the NASS Web page at <http://www.usda.gov/nass/>. You can find commodity estimates by selecting "Publications", "Reports

by Commodity", select the desired commodity, and then select the report wanted. Try the "Quick STATS" selection on the home page to access historic data. You will find it quite an interesting way to gather data. The data found can be downloaded as a zipped ".CSV" file and imported into a spreadsheet for your processing needs.

Cooperation from farmers, ranchers, and agribusinesses responding to various survey questionnaires is essential to quality estimates. We thank them for their help and willingness to provide individual operation data. We pledge to keep their individual operation data confidential.

Our NASDA enumerators provide an important part in gathering data. I enjoy attending farm meetings and talking with farmers and ranchers about their experiences of having them call for information.

Prior year estimates are subject to revision and may have been revised in this publication. Data users should use this publication for previous years data and not go back to earlier publications for earlier years data.

The following agricultural Web page sources may interest you.

Organization	Web Page Address
U. S. Department of Agriculture (Includes links to all USDA Agencies)	<a href="http://www.usda.gov/">http://www.usda.gov/</a>
U. S Department of Agriculture ( <b>Farm Bill 2002 information</b> )	<a href="http://www.usda.gov/farmbill/index.html">http://www.usda.gov/farmbill/index.html</a>
USDA - National Agricultural Statistics Service (Plus Census of Agriculture)	<a href="http://www.usda.gov/nass/">http://www.usda.gov/nass/</a>
USDA - Utah Agricultural Statistics Service	<a href="http://www.nass.usda.gov/ut/">http://www.nass.usda.gov/ut/</a>
USDA - Utah Farm Service Agency, FSA	<a href="http://www.fsa.usda.gov/ut/">http://www.fsa.usda.gov/ut/</a>
USDA - Market News	<a href="http://www.ams.usda.gov/">http://www.ams.usda.gov/</a>
USDA - Utah Natural Resources Conservation Service, NRCS	<a href="http://www.ut.nrcs.usda.gov">http://www.ut.nrcs.usda.gov</a>
USDA - Economic Research Service	<a href="http://www.ers.usda.gov">http://www.ers.usda.gov</a>
Fedstats (Statistics from Federal Agencies)	<a href="http://www.fedstats.gov/">http://www.fedstats.gov/</a>
The Federal Register	<a href="http://www.nara.gov/fedreg/index.html">http://www.nara.gov/fedreg/index.html</a>
Agriculture Sources	<a href="http://www.agsource.com/">http://www.agsource.com/</a>
Utah Department of Agriculture and Food	<a href="http://www.ag.utah.gov/">http://www.ag.utah.gov/</a>
Utah Department of Agriculture and Food - Market Reports	<a href="http://ag.utah.gov/markets.html">http://ag.utah.gov/markets.html</a>
National Association of State Departments of Agriculture (NASDA)	<a href="http://www.nasda-hq.org">http://www.nasda-hq.org</a>
Salt Lake City National Weather Service	<a href="http://nimbo.wrh.noaa.gov/saltlake/">http://nimbo.wrh.noaa.gov/saltlake/</a>
Western Regional Climate Center	<a href="http://wrcc.sage.dri.edu/">http://wrcc.sage.dri.edu/</a>
Utah Climate Center	<a href="http://climate.usu.edu/">http://climate.usu.edu/</a>
USU Extension Service	<a href="http://extension.usu.edu/">http://extension.usu.edu/</a>
Utah Agriculture in the Classroom	<a href="http://extension.usu.edu/aitc/">http://extension.usu.edu/aitc/</a>
National Farmers Union	<a href="http://www.nfu.org/">http://www.nfu.org/</a>
Utah Farm Bureau	<a href="http://www.fb.com/utfb/">http://www.fb.com/utfb/</a>
National Cattlemen's Beef Association	<a href="http://www.beef.org/">http://www.beef.org/</a>
American Sheep Industry Association, Inc	<a href="http://www.sheepusa.org">http://www.sheepusa.org</a>
National Dairy Council	<a href="http://www.nationaldairyCouncil.org">http://www.nationaldairyCouncil.org</a>
National Dairy Database	<a href="http://www.inform.umd.edu/edres/topic/agrenv/ndd">http://www.inform.umd.edu/edres/topic/agrenv/ndd</a>

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DeiRoy J. Gneiting, State Statistician  
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AND  
UTAH DEPARTMENT OF AGRICULTURE AND FOOD  
2002 ANNUAL REPORT**

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*We would like to thank the Utah State Historical Society for providing the cover photo.*

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# Utah Department of Agriculture and Food

## Administration

Cary G. Peterson  
Commissioner

Kyle Stephens  
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

vacant  
Director of Regulatory Services

Larry Lewis  
Public Information Officer

Eileen Frisbey  
Administrative Assistant

Joan Winger  
Administrative Secretary

## Agricultural Advisory Board

Arthur Douglas ..... Chairman  
Utah Farmers Union

Bob Bown ..... Vice Chairman  
Utah Dairymens Association

Clark Willis ..... Utah Wool Growers Association

Tim Munns ..... Utah Cattlemens Association

George Dyches ..... Food Processing Industry

James Selander ..... Food Supplement Manufacturers

Merl Thurgood ..... Utah Horse Industry

Randy Greenhalgh ..... Utah Assn. of Conservation Districts

Grant Tingey ..... Utah Livestock Marketing Association

Carma Wadley ..... Consumers' Representative

Dr. James Eaton ..... Utah Veterinary Medical Association

Leland Hogan ..... Utah Farm Bureau

## Department Phone Directory - Area Code (801)

For information and numbers not listed below.....538-7100

Internet homepage: [www.ag.utah.gov](http://www.ag.utah.gov)

Internet email: [larrylewis@utah.gov](mailto:larrylewis@utah.gov)

### Commissioner's Office

Commissioner ..... 538-7101  
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 Conservation

Director ..... 538-7108  
Ag Resource Development Loans ..... 538-7176  
Environmental Quality ..... 538-7175  
Livestock & Market News ..... 538-7109  
Environmental Quality Information Specialist ..... 538-7098  
Soil Conservation ..... 538-7171

### Agricultural Statistics (USDA)

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 ..... 538-7144  
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

Swifter, Higher, Stronger. Those three words represented the goals of the athletes competing in the 2002 Winter Olympics in Utah.

I would like to apply those goals to agriculture in Utah. Our farmers and ranchers continue to seek *swifter* ways to do business, producing *higher* quality products as they work to *strengthen* our economy. They are striving to do this in the face of drought, insect infestation and other weather-related obstacles. I applaud their dedication to our industry.

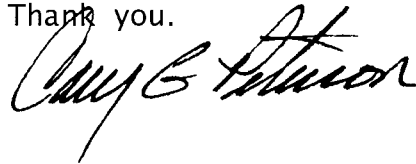
To coincide with Governor Leavitt's 1000-Day Economic Plan, our department has adopted a 1000-day plan that will make **us** swifter, higher and stronger as well. We are capitalizing on the benefits of technology to help our customers and employees. We are putting programs in place to help us adapt to changes whether they are expected or unexpected. We are focusing our resources in areas where they will do the greatest amount of good.

Please take a moment to turn to the inside front cover of this annual report where you will see a new use of technology. For the first, time our annual report is now available on CD ROM. This disk version of the report allows you access to information beyond the printed page.

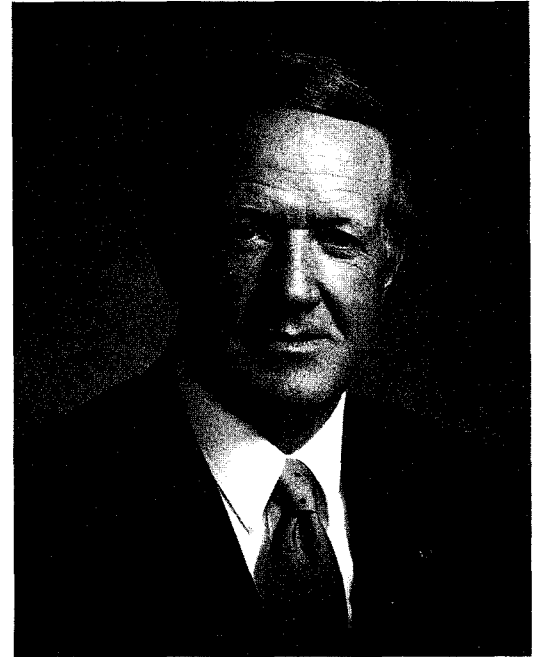
Allow me to outline a few other goals we have established for the coming years and decades.

- Ensure a safe food product through the implementation of farm to consumer “branded” products.
- Increase on-farm biosecurity.
- Protect high-quality farmland through the Critical Agricultural Land Conservation Fund.
- Increase disease surveillance and monitoring of livestock, poultry and fish populations to prevent the spread of animal borne diseases.
- Improve and implement homeland security measures.
- Protect public health through increased pesticide safety.
- Expand on-line services for department licensing and registration and implement usage of credit card as a means of payment.
- Enhance Utah’s Brand Image and Promoting Agricultural products.

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

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 in-state processing of Utah agricultural products for a stronger state economy.



Regulatory Services Compliance Officer, Ryan Quintana, examines processed meat at SYSCO Intermountain Food Service as part of the department's Olympic food safety duties. SYSCO supplied 500,000 pounds of food a day to the Olympics.



Jon and Ralph Meikle's Milky Way Dairy sits as an agricultural landmark along the Smithfield, Utah foothills. The UDAF and the USDA helped protect this fourth-generation dairy by purchasing a conservation easement from the Meikles.

# Commissioner's Office

The Utah Department of Agriculture and Food (UDAF), led by Commissioner Cary G. Peterson, made strides in numerous areas during the past year despite facing the challenges of severe drought and budget cutbacks.

The department, like most state agencies, spent four years preparing for the 2002 Salt Lake Winter Olympics. The worldwide event lasted just 17 days, and the time and energy invested was worth it. Not one case of food-borne illness associated with the Olympic-bound food was reported. And no foreign animal disease was detected during or after the Games.

The department has statutory responsibility to protect the state's food supply, as well as animal health. Many of the department's employees worked volunteer and overtime hours to make the 2002 Games a success.

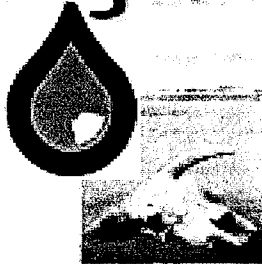
The preparation for the Games required the department to establish new and improved procedures. Many of those improvements have been permanently adopted to better serve the public for the future. One example was the creation of an Olympic Emergency Communications plan. That plan brought together program directors, division directors and the commissioner to share information about the department's work in the field.

Another lasting legacy of the Olympics is the department's 1000-Day Plan. With the leadership of Governor Leavitt, the Utah Department of Agriculture and Food developed a plan for the future that capitalized on lessons learned from the Games.

Highlights of the plan are:

- Ensure a safe food product through the implementation of farm to consumer "branded" products.
- Increase on-farm biosecurity.
- Protect high-quality farmland through the Critical Agricultural Land Conservation Fund.
- Increase disease surveillance and monitoring of livestock, poultry and fish populations to prevent the spread of animal-borne diseases.
- Improve and implement homeland security measures.
- Protect public health through increased pesticide safety.
- Expand on-line services for department licensing and registration and implement usage of credit card as a means of payment.
- Enhance Utah's Brand Image and Promoting Agricultural products.

## Drought help



[www.ag.utah.gov/](http://www.ag.utah.gov/)

The Utah drought moves into its fourth year and the UDAF is offering help to farmers and ranchers on the Internet at [www.ag.utah.gov/](http://www.ag.utah.gov/). Commissioner Peterson and Governor Mike Leavitt declared Utah an agricultural disaster area April 24, 2002. Local, state and federal programs may offer qualifying landowners loans or grants based on the amount of loss and other factors.

The September 11, 2001, terrorist attack on New York and Washington generated a heightened awareness of the fact that food and water are targets for tampering and criminal or terrorist activity. UDAF is working to shift industry's paradigm into thinking about the security of food as well as the food safety aspects. We are seeking to educate food establishments on measures that can be taken to minimize the risk of food being subjected to tampering.

Mormon crickets and grasshoppers continued their unprecedented infestation of Utah range and crop land in 2001 and 2002. The 2001 Fall Rangeland Insect Survey was completed the last week of August, 2001. The survey indicates that we have 1,390,100 acres infested with grasshoppers in 2002, and 1,894,500 acres infested with Mormon Crickets. Insect damages ranging upwards of \$22.5 million may be expected again this year. Large populations of these voracious insects in 1998, 1999, 2000, and 2001 prompted a Governor's Declaration of Agricultural Disaster. Limited federal and state funds provided some relief during 2001 but left many private farmers, ranchers and homeowners to use their own resources to control the infestation.

The department informed the Utah Legislature that yet another increase in cricket and grasshopper populations is expected in 2003.

The division of Administrative Services successfully implemented Internet on-line service to the public this year. The system was first offered in the fall to renew livestock brand licenses.

Animal Industry veterinarians volunteered for duty in Great Britain to help in the Foot and Mouth Disease (FMD) eradication effort in 2001. The experience brings valuable expertise to the division, which served us well in preparations for the 2002 Winter Olympics. An Emergency Disease Response plan was developed during the course of those preparations, which will be of great future benefit. The division was active in developing and implementing biosecurity arrangements for the Soldier Hollow Olympic venue and in addressing the concerns raised by animal welfare proponents surrounding the Olympic Rodeo. Veterinary expertise was also provided for CSEPP, CERT, and CEM as well as other emergency response programs in the state.

During the years and months leading to the Olympics, the Division of Regulatory Services was a member



Kyle R. Stephens  
Deputy Commissioner

of an alliance called the Environmental Public Health Alliance or EPHA. The alliance was comprised of six local health departments and the UDAF, the Department of Health and the Department of Environmental Quality. The alliance formed work groups and committees to cover the broad public health and environmental aspects of the Olympics. EPHA's planning ensured that risks were minimized and problem areas were addressed and resolved quickly.

The department's Public Information Office designed a new Agriculture display for the State Capitol Building. The new up-to-date, colorful and informative display promotes agriculture and its contribution to our daily lives.

The UDAF awarded more than \$600,000 in grants to promote and stimulate agricultural production in Utah. The department received the funds from the U.S. Department of Agriculture and is currently disbursing the funds. The grant money is dedicated to enhancing Utah agriculture in ways that generate added revenue directly to farmers and ranchers.

Commissioner Peterson in April urged U.S. Secretary of Agriculture, Ann M. Veneman to make changes to the Western Milk Marketing Order that would restore fair and equitable pricing for Utah dairy farmers. Commissioner Peterson offered testimony during hearings held by the USDA in Salt Lake City.

"Specifically these proposals will accomplish the following: help repair the inequalities and damages to Utah dairy producers from the Western Order; second, improve the Order Utilization and price for all dairy farmers pooled on the Order; and third, more accurately recognize the demand for milk in Utah," said Commissioner Peterson. Commissioner Peterson supports proposed changes to rules 6, 9 and 10 of Federal Order 135, thereby giving dairy farmers greater flexibility in marketing their milk.

### 1000-Day Plan

In the summer of 2002 department directors met with Commissioner Peterson to create the department's 1000-day plan. The document coincides with Governor Leavitt's 1000-Day Economic Plan as it outlines the department's goals for the future. The following are excerpts from that document.

Strategy #1--Enhance Utah's life quality and economic viability. A major emphasis of the department's mission is to "ensure consumers receive a safe, wholesome and properly labeled supply of food, fiber and other agricultural products."

To reach this goal the department would:

1. Review existing state codes and identify areas for update and change to allow for establishing a fee based registration/inspection program.
2. Establish a restricted fund account, through service fees, to fund critical public health responsibilities, while not diminishing existing general fund base.
3. Promote Utah's Olympic environmental and public health branding message, "Where

Life and Landscape Connect" on promotional material, mailings and marketing initiatives. 4. Educate and inform the public about the department's values.

Strategy #2 - Invest in people. Utah has a well-educated and well-trained workforce and appropriate compensation is critical to maintain the expertise and knowledge base of highly trained employees.

Strategy #3 - Develop Utah as a center for technology investment, employment and entrepreneurship. The department will look at opportunities to utilize E-government and expand electronic services within department programs and adapt to new technological advancements in order to more effectively accomplish the mission of the department.

### New Deputy Commissioner Named

Commissioner Peterson (left) selected Kyle R. Stephens, as the department's new deputy commissioner in April. Kyle had been the director of regulatory services since 1993. He will perform a dual role as deputy commissioner and director of regulatory services until a new division director is appointed. Commissioner Peterson said he selected Stephens because of his excellent organizational skills and his broad experience and understanding of agriculture, and the workings of the department. The commissioner pointed to Stephens' success in planning and executing the 1999 NASDA conference in St. George, and his accomplishments with food safety protection during the Olympics.



# Administrative Services



Renee Matsuura  
Director

The goal of Administrative Services is to provide continues, efficient and high-quality administrative support and services to the public and to agency users to assist the over all development of agriculture in Utah. Our motto is to provide exceptional customer service.

## Information Technology Services

The Agriculture & Food Building has been converted over to a Cat 5 level 7 wiring and will run at 1000mb per second instead of the 10mb we having been using for several years. The conversion allows users who have not had access to LAN. This installation will also provide 1000mb per second speed when state WAN equipment becomes available. State Information Technology Services contracted with Americom to complete the project before June 2002. All data station cables and termination devices (jacks and patch panels) with Gigaspeed installation product to support future 1000mb electronic were installed. Upgraded copper wiring between phone closets to fiber optics with redundant Gigaspeed wire was also installed. Several areas were remodeled to meet state requirements which also included installation of air conditioners where hubs are collected on each floor

The WEB server is maintained by Information Technology Services 24/7 providing savings to the department at this time. Utah Interactive developed an application using the internet to provide on-line services to Utah citizens. Our first application is license renewal that will be available fall of 2002.

Additional IT accomplishments include the following programs:

- Brand certificate auditing (eliminate separate excel report and increases error checking)
- Dairy inspection and lab analysis enhancement provides ongoing certification of lab by FDA. Easier management of the program, reduced workload by office support and WEB access to dairy reports for inspector, producers and buyers with appropriate security. ( If we had chosen to cooperatively develop a software program with the State of Florida, we would have paid \$200,000 and or employ a dedicated programmer)
- Audit was completed to review IT staff versus user ratio. Audit was completed because of customer complaints that service levels were not being met. Legislature approved a new position
- E-mail addresses changed to Utah.gov.
- Elk Farm licensing and inspection program was completed.
- Convert all printers to NDPS connections (without using a dummy terminal connection).

## Human Resource Management

The Human Resource Management section of the Utah Department of Agriculture and Food supports employees and management in the following areas:

- Job classification, compensation, recruitment, payroll and leave matters, rules, policies and procedures, state employee benefits, Family Medical Leave Act, Americans with Disabilities Act, Employee Assistance Program, dducational assistance, mediation, new employee orientation and employee training.

The Department recently contracted with the Department of Human Resource Management (DHRM) to allow the department's human resource staff to function more independently from DHRM. One of the added responsibilities the contract allows the department, is to perform recruitment searches in the Resumix system, (Utah Skill Match).

Policies and procedures have recently been revised and expanded new policy has been written to enable better clarification to management and employees.

Staff members serve on the state training consortium, the human resource exchange group, the state work force planning team, and the payroll users group.

## Financial Services Section

The state is getting ready to implement a new payroll system. We have had a representative on the implementation and planning committee-giving input. It will allow employees to enter their timesheets on line. The system will give better accounting reporting and less paper work. We will be entering non-taxable employee reimbursements directly through FINET in the accounts payable system. This causes less coding errors and the employees can receive their reimbursement in a faster time frame.

We have been working with the federal government for several years getting all of our grant revenue electronically transferred to our bank account. We just completed our last grant.

This year in FINET the fixed asset program has been upgraded. It produces information and keeps records in compliance with new accounting policies and procedures.

There is a new software program developed by our ITS programmer for our brand recording program. When entering it, the amount goes directly into our cash system so it doesn't have to be entered twice. It also produces reports that in the past has had to be entered in a spreadsheet to obtain certain information.

# Wildlife Services



Mike Bodenchuk  
Federal Program Director

Wildlife damage to agriculture nationwide was estimated at \$944 million during 2001, according to the National Agricultural Statistic Service. These losses included \$619 million in losses to field crops, \$178 million in predation losses to livestock and poultry and \$146 million in losses of fruits, vegetables and nuts. In Utah, livestock loss caused by predation is the single largest source of agricultural damage caused by wildlife. The cooperative UDAF-USDA Wildlife Services program addresses predation impacts on livestock, native wildlife and human safety concerns from a number of species.

The Utah cooperative program, which includes 17 State and 16 federal employees, has served as a model for wildlife damage management programs nationwide. Personnel from the program often consult with other state and federal programs, lending expertise to developing programs and employees in all aspects of wildlife management.

Funding for the Wildlife Services program comes from several sources, including direct funds from livestock producers, county funding and federal and state appropriations. Due to declining sheep numbers, producer funding has decreased in recent years. However, a holistic approach to wildlife damage management has allowed the program to remain efficient.

Much of the current focus of the program involves protection of livestock from predators, notably coyotes, red fox, black bears and mountain lions. Coyotes cause substantial losses to the sheep industry, killing tens of thousands of adult sheep and lambs annually. Coyotes also kill calves and occasionally adult cattle during calving. Cougars and black bears kill sheep, lambs and a few calves, primarily in the summer months when livestock are grazed at higher elevations. Red fox, a non-native predator, kill lambs during the spring and are a serious predator to the poultry industry.

In addition to killing livestock, predators can impact native wildlife, especially threatened, endangered or otherwise vulnerable species. The current Wildlife Services program considers the impacts of predators on all components of an ecosystem. In predation management environmental assessments, completed in 1996, impacts of the program on the ecosystem were analyzed. The program, while protecting livestock and wildlife, has no significant negative impacts on the environment.

The objectives of the program are 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 predation management program targets only offending individuals or offending populations.

Methods for predation management are used selectively as possible to minimize negative impacts to other wildlife. Methods used to control coyotes include aerial hunting, calling and shoot-

ing, trapping, denning and M-44 sodium cyanide ejectors. In addition to removing offending predators, Wildlife Services specialists assist producers in detecting predation and, in the case of cougar and bear losses, in confirming damage for the State sponsored compensation program.

Wildlife Services continues to sponsor research into the development of methods to minimize wildlife impacts, including extensive research into non-lethal methods. Current projects in Utah include monitoring producer implemented non-lethal methods, supplemental feeding of black bears to prevent depredations and fertility control in coyotes to prevent depredations. The Wildlife Services program also assists crop and aquaculture producers in assessing and preventing damage from migratory birds. Most species of birds are protected by Federal law and professional assistance and federal permits are required. Additionally, Wildlife Services can assist producers in developing integrated strategies and locating equipment and supplies to assist them in preventing losses.

The protection of human safety and health is an important part of the Wildlife Services program. Because of the great numbers of human/wildlife interactions in Salt Lake County, Wildlife Services has an Urban Wildlife Damage Management program there. One full time urban specialist, assisted by a full-time volunteer, answer questions from homeowners and businesses on how to prevent damage, lend live traps and provide instructions on humane trapping, and pick up captured wildlife when necessary. Most of the urban calls deal with health risks associated with raccoons and skunks, but the program also has assisted in preventing wildlife diseases, rescuing wild animals, preventing the spread of rabies from bats and capturing and relocating nuisance waterfowl and porcupines. Wildlife Services also responds to several human safety concerns each year prompted by coyotes or cougars in neighborhoods.

Wildlife damage continues to decline in response to the professional Wildlife Services program. Objectives set in the 1996 EA's include keeping lamb losses to less than 5 percent, adult sheep losses to less than 3 percent and calf losses to less than 1 percent. All objectives are currently being met for those livestock protected by the program. Research indicates that losses without the program would be 3 to 5 times higher, effectively driving many producers out of business. Benefit:Cost ratios indicate that for every dollar spent on predation management, \$12 in additional economic activity is generated. Additionally, the Wildlife Services program has been effective in protecting mule deer populations, endangered species and ground nesting bird populations, all without having significant adverse environmental consequences.



# Ag. Marketing & Conservation



Randy Parker  
Director

The Division of Marketing and Conservation has two major objectives: To assist in the economic development of the state's agriculture production sector and to protect and enhance the state's natural resources. The division works with farm and ranch producers and Utah agribusiness's in expanding market opportunities, adding value to locally grown commodities, developing new products for market, and promoting Utah agriculture in local, national and international markets. In addition, the division works with farmers and ranchers to protect and enhance the soil and water resources of the state through coordinated conservation and resource improvement programs.

## Marketing

A major focus of the marketing section is to assist Utah companies in expanding markets locally, nationally, and internationally while adding value to Utah produced agriculture products. The division continues to help companies in developing marketing strategies and identifying resources to assist them. The division distributes food and agriculture directories to domestic and international audiences and provides opportunities for farmers, ranchers and agribusiness's to investigate international markets. The Internet has become an information highway that assists the division in marketing Utah agriculture and food in both domestic and foreign markets. Contact information on Utah farmers, ranchers and agribusiness's is now available through the Department's home page: [www.ag.utah.gov/](http://www.ag.utah.gov/)

## Local Market Development

The division received a grant from the U.S. Department of Agriculture's Agricultural Marketing Service to promote Utah organic lamb. The grant provided \$44,000 for the division and the Utah WoolGrowers Association to investigate the market opportunity for locally grown organic lamb. The division and industry created new "heat and serve" flavored lamb products that so far have been well received by consumers. Because of work on the grant, it was determined that Utah Hotel and Institutional markets have a desire to feature Utah lamb.

The Division and Utah State Fair have teamed up to feature Utah products at the Fairpark Centennial Village. During the State Fair, the Division and Utah businesses use a historic general store concept to display and sell Utah products. The Centennial Village and General Store are patterned after a turn of the 19th century town including boardwalk. The Centennial Village is located near the rodeo arena, and provides interesting entertainment and Utah products to fair goers.

## Product of Utah Program

The Product of Utah program provides Utah companies an opportunity to be identified to local consumers. A broad range of Utah produced and manufactured products are more recognizable to Utah consumers with the help of point of purchase identification, informational brochures and print and electronic media advertising that help drive consumer recognition and interest. In recent years, the program has expanded to include more non-agricultural products, i.e., music, sports and recreation. Utah's image in sports and recreation has companies interested in using the logo as they open new market opportunities. There are more than 300 companies that have participated in the Product of Utah program since its beginning in the late 1980's. It has even been used by a number of companies as they have developed their export market strategies. Utah is recognized nationally and internationally for its high quality products and innovation. Many Utah companies use the logo at international trade shows, in retail stores, trade magazines and media advertising.

The Olympics provided an opportunity to showcase products for companies that participate in the Product of Utah program. The Product of Utah Olympic Store was created to operate during the Olympics. While security constraints restricted store traffic, the store provided a great display of Utah produced goods.

## Food and Agriculture Exports

Following a slowdown in food and agriculture exports in 1999 and 2000 due to the economic problems in Asia, Utah's export sales rebounded in 2001. Asia continues to be the major destination for Utah's high-value, consumer-oriented food exports as well as agricultural commodities. Global customers continue to discover the quality and competitive prices of Utah's food and agriculture exporters. Animal agriculture continues to pace commodity exports with meat, skins, hides and dairy products leading the way. Utah ranks 6<sup>th</sup> nationally in skins and hides exports at \$76.7 million, 18<sup>th</sup> in dairy exports at \$12.5 million and 19<sup>th</sup> in meat exports at \$50.3 million. Crop exports were led by alfalfa hay at \$17.7 million to rank 24<sup>th</sup> nationally. Commodity exports reached \$183.5 million in 2000. As with national trends, Utah's high-value food exports continue to achieve new records with over \$207 million estimated sales in 2001.

## International Market Development

The Division continues to help Utah farmers, ranchers and agribusiness's reach out to global market opportunities. Utah works with the U.S. Department of Agriculture's Foreign Agriculture Service (FAS) in identifying international market opportunities. FAS provides financial resources, commodity expertise and foreign market contacts to help companies develop new

global markets. FAS coordinates agricultural trade offices around the world that offer U.S. companies valuable in-country assistance. Congress annually appropriates \$90 million for the Market Access Program (MAP) to provide cost-share monies to eligible companies for global market development. Export market development funds are available through state departments of agriculture or through commodity groups and other cooperators participating in MAP.

The Western U.S. Agricultural Trade Association (WUSATA), made up of the 13 western states, is a coordinated effort to access federal resources and develop regional export programs and initiatives. Utah's high-value, consumer-oriented food processors are eligible to receive MAP funds for export development from WUSATA. During FY 2001-02, Utah had three companies that qualified for nearly \$200,000 in MAP funding. In addition, the division manages outreach projects in Japan and Hong Kong assisting Utah and western region companies enter these export markets.

The division hosted a two-day "Export Readiness" training session August 22-23, 2001. Ten Utah companies participated in the training opportunity. Division staff, WUSATA staff and a professional export consultant were available to introduce the Utah companies to resources, services and a one-on-one export market consultation.

The division also participates in U.S. Livestock Genetics Export, Inc., (USLGE) to assist Utah livestock producers investigate and develop export markets for sheep, beef and dairy genetics. USLGE offers Utah livestock producers a trade organization that coordinates international market development efforts. Division Director Randy Parker serves on the USLGE Board of Directors. The Utah Livestock Directory and targeted cattle directories have been distributed to worldwide audiences. Of major focus is the Northern Mexico market. Northern Mexico cattle genetics and high desert geography are similar to Utah. Division staff and an industry representative attended the Mexican National Livestock Convention June 10 - 13, 2001 in Tampico. A directory of Utah cattle producers was distributed at the event.

### **Great American Food Shows**

The Division works with Foreign Agriculture Service to identify global opportunities for introducing Utah's high quality food and agriculture products through FAS sponsored food shows. Utah companies interested in investigating new international markets are able to participate in organized U.S. pavilions that attract perspective consumers, importers, wholesalers, and retailers.

Utah food products have been some of the featured American foods promoted at major events in Hong Kong during 2000-01. City Super, an upscale food retailer, has offered several Utah products to its customers including Bear Creek Country Kitchens soups, Redmond's Real Salt and Stephens Coco. Park 'N Shop, Hong Kong's leading retail food chain with 220 stores, has identified a company growth strategy to introduce more American food products to its customers. During the past year, Park 'N Shop introduced more than 250 new American foods in 18 of their super stores. Utah's Bear Creek Country Kitchens soups and Norbest turkey products were among the new items available to Hong Kong residents.

In 2001, Gossner's Food re-entered the Hong Kong market with their whole and 2 percent reduced fat Ultra High Temperature (UHT) milk. After a four year absence, Prize Mart received import approval from the Hong Kong Department of Health & Environmental Hygiene for the Logan, Utah product. Gossner's UHT milk is the only U.S. fluid milk approved for entry into the Hong Kong market.

FOODEX 2002 held in Tokyo, Japan March 12-15, 2002 is the largest Asian food show, attracting over 90,000 attendees. The division coordinated Utah and WUSATA participation in the U.S. pavilion and offered "Food Show Plus" a package that helped participating companies achieve better results. Food Show Plus provided advance translation services, a full time translator in the exhibitor's booth during the show and store tours and some follow-up assistance. The service helped 18 WUSATA region companies sell \$800,000 at the show and an estimated \$3 million for the coming year. Utah's Bear Creek Country Kitchens and Redmond Real Salt participated in FOODEX 2002.

U.S. Food Export Showcase, sponsored by the National Association of State Departments of Agriculture, was held in Chicago, May 5 - 7, 2002. The show attracted nearly 7,000 international buyers interested in new and innovative American food products. The division displayed 11 Utah products including the new "heat and serve" lamb product developed by the Rocky Mountain Organic Lamb Project.

### **North American Agricultural Marketing Officials**

The North American Agricultural Marketing Officials (NAAMO) was organized in 1921 to allow state agricultural marketing representatives to share ideas, improve state cooperation and develop new marketing ideas. Today, the association has broadened its focus to include both domestic and international marketing and has expanded membership to include Canada and Mexico. Utah is a long time member of NAAMO and will participate in its 81st annual convention to be held July 14 - 18, 2002 in Baltimore, Maryland. The theme of the conference will be "Our Farms Our Future." Randy Parker continues to serve as NAAMO First Vice President.

### **Risk Management Agency Special Projects**

The Division has been chosen one of four states to participate in a pilot project to establish a state food policy council. The Risk Management Agency (RMA) of the U.S. Department of Agriculture awarded Utah a \$45,000 grant to assist in creating a structure to administer RMA programs while promoting Utah agricultural products to Utah consumers. A goal of the council is to insure nutritious locally grown food products are made available to all citizens of the state including elderly and impoverished. The council will look at ways to improve the economic opportunities for Utah farmers and ranchers through enhanced risk management, direct marketing, farmland protection and nutrition education.

The division chose a team format for the council and is known as the Utah State Food Policy Team. Several leaders from the Utah food and agriculture production industries are serving as members of the team. The team goal is to improve farm gate revenues thereby providing an environment for sustainable agriculture.

In addition, given that Utah has been identified as one of 13 underserved states of USDA's Risk Management Agency (RMA) the RMA provided Utah with a grant of \$219,000 to provide outreach programs to assist RMA in reaching Utah farmers and ranchers. In partnership with Utah State University, the award will allow the division and Utah State University to assist RMA's Education and Outreach Plan for the identified underserved states through direct producer training, educational partners, and investment in supportive activities.

#### **Federal State Marketing Improvement Program (FSMIP)**

The division requested and was awarded a grant for the Southern Utah Forest Products Association to create an educational and retail outlet for association products at the entrance to Capital Reef Monument in Torrey, Utah. The outlet held its Grand Opening on May 11, 2002.

#### **Junior Livestock Shows**

The Division administers the legislative mandated and funded program that assists the State's junior livestock shows. Using a formula, funds are allocated to shows to promote youth involvement and offer a quality educational experience. The Utah Junior Livestock Shows Association has developed rules with which shows and youth participants must comply to qualify for State assistance. The funding provided by the legislature must be used for awards to FFA and 4-H youth participants and not for other show expenses. During the past year, 18 junior shows were awarded funds to assist in this youth development program.

#### **Utah Horse Racing**

In 1992, the Utah Legislature passed the Utah Horse Racing Act that established a regulatory process for monitoring the horse racing industry. A five-member commission is appointed by the Governor and approved by the Senate that oversees the process and makes periodic changes based on needs or industry input. The Division administers the Act because of its importance in to market value of Utah horses. Commission sanctioned tracks and races are important in establishing recognized times for Utah quarter horses. During the past year, nearly half of the horses running on sanctioned tracks received Rating of Merit (ROM), an index that helps establish horse values and stud fees. Without Utah's regulatory system and commission to oversee the State's Quarter Horse races, the races and associated times would not be recognized by national and international groups. This would result in the loss of millions of dollars of value to our horse industry.

#### **Market News Reporting**

The Market News Section provides accurate and unbiased price information, critical to agriculture and agribusiness in decision making. Market information is disseminated through print media, broadcast media, call-in service and summary mailer. Market information is available department's worldwide web site that attracts over 2,000 hits per month. The division monitors livestock auctions in Cedar City, Salina, Spanish Fork and Ogden. In addition, alfalfa hay buyer and seller information is compiled to provide similar market information.

#### **Groundwater and Rangeland:**

The Department's agricultural groundwater, well testing and rangeland monitoring programs continue to grow and flourish. Electronic annual reports about each program are available on the Department's web site: [www.ag.utah.gov/](http://www.ag.utah.gov/).

In 2001, the groundwater-sampling program collected 519 samples from all seven Utah Association of Conservation Districts zones. Most of the samples were collected in zones 1,2 and 3 in the northern part of the state. The samples were tested for a variety of parameters including electrical conductivity, temperature, pH, hardness, sodium and bacteria.

None of the samples contained pesticide residues. While bacteria continued to be a problem in the northern part of the state, far fewer wells tested positive for coliform bacteria in 2001 than in 200. In 2001 only nine percent of the wells tested had measurable coliform. Of that number, only one percent tested positive for E-coli.

The rangeland-monitoring program now has its annual reports from 1996 to 2001 available in hardcopy, on CD-ROM and on the Internet. During 2001 most of the sampling activity took place in the northern part of the state in places including Bear Lake, Croydon, Deseret Land and Livestock, Hardware Ranch and the Uinta Mountains near Kamas.

The Focus for 2002 shifts to the central region of the state. This includes Juab, Utah, San Pete and Millard counties.

#### **Non-point Source Pollution:**

Utah's agricultural non-point source (NPS) pollution control program continues to be funded largely by federal grants through Section 319 of the Clean Water Act. UDAF continues to serve on an interagency committee working on the inventory and assessment of Concentrated Animal Feeding Operations (CAFOs). In 2001, the Utah Legislature allocated \$400,000 for the UDAF to fund CAFO projects.

By early 2002 the CAFO assessment teams had assessed nearly 1,000 operations statewide. That assessment process should wrap up later in the year. Following the assessment, those operations needing environmental improvements will have comprehensive nutrient management plans written and then make any needed improvements.

Watershed restoration projects continue throughout the state. Chalk Creek in Summit County continues to make vast improvements in the watershed. A major sprinkler irrigation system is scheduled to be completed in late 2002 or early 2003. This will greatly reduce erosion to Echo Reservoir and the Weber River. Work also continues in other areas of the state including Beaver County and Cache County.

In the area of information and education, Utah is leading a national effort to develop a new NPS media campaign and outreach effort. The effort will be focussed at local communities and is designed to give local watershed committees, soil conservation districts, storm water coordinators and other local water quality leaders the tools they need to work with the media and the general public to reduce NPS pollution.

### **Soil Conservation**

The soil conservation section helps enable Utah's private land managers to protect and enhance their soil, water and related natural resources. There are many short and long-term public benefits that come from protecting these resources. We strive to help create an environment where representatives of private land managers can direct the local-state-national land and watershed conservation and development programs in a voluntary, incentive based process.

The section provides staff support to the Utah Soil Conservation Commission (USCC), which is chaired by Commissioner Peterson. This Commission is a policy making body that coordinates, develops and supports soil and water conservation initiatives and programs in the state. The USCC directs financial and administrative support to Utah's 38 Soil Conservation Districts (SCD). These districts are local units of government charged by state law to help private land managers protect soil, water and related natural resources. This Commission and the districts work closely with their conservation partners to help solve land and water resource challenges.

During this last fiscal year this section carried out Supervisor election by mail for two positions on each SCD as outlined in state law. The USCC certified the results in their March 2002 meeting. There were approximately 12,000 ballots mailed with a 37 percent statewide average return. Those elected serve four-year terms of office.

The USCC has had the legal responsibility to administer the state's Agriculture Resource Development Loan (ARDL) program since its creation by the Utah Legislature in the early 1980s with staff support from the Department. The USCC has developed an administrative structure for the ARDL program so local SCDs are able to promote and benefit from ARDL projects within their boundaries. Administrative ARDL policies are kept current by the USCC. These policies were thoroughly revised during this past fiscal year with the help of the Commission's ARDL Policy Review Committee and Division staff support. This committee benefits from participation of most of the Commission's federal and state conservation partners. Representatives from the USDA Natural Resources Conservation Service, the USU Extension Service and Utah Association of Conservation Districts were especially helpful.

Also during the past year the USCC developed allocation criteria for state appropriated funds to be granted to Utah's private livestock operations to mitigate animal manure non-point water pollutant challenges. These grants can be an important incentive program for the implementation of the state's Animal Feeding Operation Strategy. Again a committee made up of livestock operators, SCD officials, state and federal natural resource professional was utilized by the Commission to develop these criteria.

### **Low Cost Loan Programs**

The division is responsible for several loan programs to help the agriculture community and others achieve various worthwhile goals for productivity, efficiency and environmental benefits for the people of Utah. At present the division has portfolios totaling more than one thousand loans with total assets of more than \$32 million. The quality of the portfolios is very high with low delin-

quencies and a history of minimal losses. The division cooperates with the Department of Environmental Quality (DEQ) in managing one loan program, and is in process of setting up another program with that agency. Cooperation with other departments of government provides for greater efficiency with minimized duplication of effort and provides the taxpayers with more efficiency in government. The existing programs are:

### **Agriculture Resource and Development Loan**

This program is the largest portfolio, consisting of about 900 loans and \$20.4 million outstanding. The program is managed by the division for the Utah Soil Conservation Commission in cooperation with the soil conservation districts throughout the State. The purpose of the loans is to finance improvements for land owners to provide for greater efficiencies in agriculture operations, range improvements, water and soil conservation, disaster assistance and environmental quality. The loans are written for a maximum of twelve year terms at three percent interest and carry a four percent administration fee that goes directly to the Utah Association of Conservation Districts (UACD) to help finance their operations. The program is a revolving fund which is growing at the rate of about \$1 million per year.

### **Rural Rehabilitation Loan Programs**

These programs, funded by both State and federal monies, total about \$6.5 million, and consist of about 75 loans. The purpose of the loans is variously to help financially troubled producers to stay in business, to assist beginning farmers in obtaining farm property and to provide financing for transfer of agriculture properties from one generation to another. They are essentially loans of last resort requiring that applicants be declined by conventional commercial lenders. Terms range up to a maximum of ten years, and interest rates are five percent or less.

Petroleum Storage Tank (PST) Loans. This program is managed for DEQ to provide financing for property owners who have underground storage tanks that require removal, replacement or remediation. The portfolio consists of about 60 loans totaling about \$2 million. Loans are made for up to \$45,000 for a maximum ten year term at three percent interest.

The division is in process of developing another program with DEQ's Division of Water Quality to finance projects for eliminating or reducing non-point source water pollution on private lands.



# Animal Industry



Dr. Michael R. Marshall  
Director

The Animal Industry Division of the Utah Department of Agriculture and Food contains five main programs:

- 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) Livestock Inspection (brand registration and inspection) — to offer protection to the livestock industry through law enforcement.
- 5) Fish Health — protecting the fish health in the state and dealing with problems of 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

For the first time, disease free status was awarded for *Mycoplasma gallisepticum* in 2001. Disease monitoring programs continued from prior years include those for heartworm, equine encephalitis, equine infectious anemia, rabies, brucellosis, tuberculosis, pseudorabies, salmonella sp., mycoplasma, etc. Beginning in 2001, the Division participated in a West Nile Virus Surveillance program in partnership with the Utah Department of Health, the Utah Division of Wildlife Resources, and the Utah Mosquito Abatement Association. The Division of Animal Industry role was to produce a pamphlet alerting horse owners concerning this disease.

Voluntary disease control programs are at the forefront of the effort to improve the animal health of the nation. The Division began a new program in 2001 entitled the Utah Cattle Health Assurance Program (UCHAP), funded by a grant from USDA, FSIS. The program focuses on the concepts of Animal Health, Environmental Stewardship, and Food Safety through a Core Module of Risk Assessment and development of a Management Plan.

This program will provide an umbrella for other spin off programs such as our voluntary Johne's Disease Control Program, Trichomoniasis testing program and future programs yet to be developed. In this vein, the UCHAP umbrella formed a partnership with the recently introduced Beef Quality Assurance Program developed by Utah State University and sponsored by the Utah Cattleman's Association.

To date, 30 farms have signed up for various aspects of the UCHAP program and 25 have completed testing of 30 animals for Johne's disease, 20 have completed a Risk Assessment and development of a Management Plan.

Programs such as the Utah Egg Quality Assurance Plan, and the National Poultry Improvement Plan were continued, with department monitoring of the quality assurance plan of each participating farm. 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 and to acquaint them with new programs.

The Division veterinarians monitored livestock imports into the state by reviewing 12,207 certificates of veterinary inspection and several hundred livestock movement reports. Approximately 244 violations of Utah import regulations were investigated, and seven citations were given with fines of \$314 collected. The reported incidence of heart worm in Utah dropped to 79 reported cases, compared to 96 cases in 2000 and 120 cases in 1999. This may have been the result of Division veterinarians re-emphasizing the reportable nature of the disease to veterinarians and their clients. Increased usage of preventative medications in the endemic area is also considered a factor.

Division veterinarians continue to be involved with certifying Utah agricultural products for export by issuing certificates of veterinary inspection. They performed 57 onsite inspections for brine shrimp being exported, compared to 28 the previous year, and 878 export certificates were issued, compared to 217 the previous year. The division is responsible for licensing hatcheries, qualified feedlot operators, and swine garbage feeders in the state. Sixteen such licenses were issued and onsite inspections were accomplished. The number of hatcheries in the state continues to increase in the game bird industry. 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.

The Animal Health section 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 than 500 weekly livestock sales conducted by 8 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.

Division veterinarians volunteered for duty in Great Britain to help in the Foot and Mouth Disease (FMD) eradication effort in 2001. The experience brings valuable expertise to the Division, which served us well in preparations for the 2002 Winter Olympics. An Emergency Disease Response plan was developed during the course of those preparations, which will be of great future benefit. The Division was active in developing and implementing biosecurity arrangements for the Soldier Hollow Olympic venue and in addressing the concerns raised by animal welfare proponents surrounding the Olympic Rodeo. Veterinary expertise was also provided for CSEPP, CERT, and CEM as well as other emergency response programs in the state.

### State-Federal Cooperative Laboratory

The primary mission of the State-Federal Laboratory is to conduct tests on blood and milk samples to help protect the health of animals and humans.

In 2001 the State-Federal Laboratory conducted the following tests:

Brucellosis serology tests:	53,737
Brucellosis ring tests:	1,784
Rivinol brucellosis confirmation tests:	178
Equine Infectious Anemia Tests (Coggins)	1,470

During 2001 the laboratory dispensed 35,010 doses of RB-51 Brucellosis vaccine. In addition, 100 vials of tuberculin test reagent were dispensed. Twelve Brucellosis card test kits were dispensed. Other miscellaneous supplies were dispensed to private practitioners, government veterinarians and technicians.

The laboratory staff and other animal health personnel issued 2,492 import permits for livestock, poultry and other animals.

A total of 571 swine blood samples were forwarded to U.S.U. for Pseudorabies screening to help maintain our Stage "V" rating.

The fish health program has begun using the laboratory facilities in a limited way for things such as media preparation and storage of other reagents, etc.

### Meat and Poultry Inspection

The Utah Meat and Poultry Inspection Bureau has consistently grown in our responsibilities to the Utah consumer. The number of Utah inspected meat processing facilities throughout the state has grown slightly this past year. We have added two slaughter facilities and three processing facilities to our fully inspected state plants list. We have lost four T/A plants to our list of official inspected facilities due to federal manning requirements. We routinely answer calls from individuals that are interested in pursuing an interest in the meat industry. Our staff is on-call to review and assist new plant managers in preparation of facilities to come under state meat inspection. We work to allow these individuals the opportunity to produce meat products in a clean, well built, and sanitarily maintained facility that fits the minimal requirements established by the United States Department of Agriculture. The scheduling of daily plant inspection tasks has been addressed by the computerized scheduling of the Performance Based Inspection System (PBIS). A recent upgrade to make this system even more efficient and more economical by utilizing a

new computer system, that is now in the hands of all the inspection staff, took place with the new system called the Field Automation and Information Management system or FAIM. This system gives each inspector access to either a laptop or desktop computer to accomplish their work and document the results. The computers have proven to be invaluable to the field inspectors by allowing them to account to the office in real time via the e-mail system what is going on in the remote plants throughout the state. Daily communications and message traffic have become our standard and we look forward to become more heavily involved in the electronic means of all aspects of our jobs. We have therefore effectively utilized the electronic forms of communication to make this system become a valuable part of everyday life in our inspection program. These top of the line computers have all the modern computerized programs to make documentation and tracking of information quick and easy. It has allowed our staff to be "equal to" the federal inspection system that has been utilizing this technology for several years. An extensive electronic library is also included for reference and training for the inspector in the field.

The inspection procedures for meats have changed dramatically in the last few years. We have been supportive of the new safety procedures initiated over this transition period, which began on January 25, 1998. The HACCP (Hazard Analysis and Critical Control Points) process of inspection, initiated by NASA to maintain safe foods for our astronauts, has become the government and industry standard. This system allows each plant to address their own operation and to create a plan that fits the specific production, products, techniques, and facility that they operate. Basically, the plant management team looks at each production process within the plant and analyses for any potential of a physical, chemical, or biologic hazard to the consumer. They then address methods in their specific production process to control or eliminate that hazard. Their actions are monitored, tracked, and recorded on each production day at the various critical control points (CCP) for each hazard that they identified. Meat inspection staff is tasked to review each plant's plans for each of the seven specific steps to ensure the plan meets minimum functioning status of HACCP. The inspectors will then concentrate on the process each plant operates under rather than the old command and control techniques of watching and directing all actions within a plant. The inspectors will verify the plant's documents and observe the plant's actions at the prescribed critical control points. The final validation of each lot of product produced in the plant is at the pre-shipment review point. Here the plant management verifies to himself, the inspection staff, and to each consumer that the product has been produced in accordance to all safety precautions and has met all the critical controls points during its production. The plant's pre-shipment review chart is carefully inspected by the meat inspection staff for accuracy, completeness, and thoroughness on each lot of product leaving the plant. The plant management is in total control of all products and the sanitary production of those meat products. If an inspector notes anything that is not in keeping with the plant's plan or if anything is creating a product that may be harmful to a consumer, the inspector has the authority to take immediate control action. This new inspection methodology is a dramatic change from days past. We have spent many long hours in preparation for the new

system and will spend many more supporting the management of our meat production facilities throughout the state to transition to the new system and assure that each plant has control of the production of their products. Our goal is to verify to the consumer that the meat products they purchase are of the highest safety standards and quality.

As a coordinated effort for meat safety and the implementation of the new HACCP process of inspection, our office has been a key for the sampling and testing of meat products for biologic hazards. We have been instrumental in the development of several testing programs that include surveys for the microbiologic pathogens Salmonella, E. coli, and Listeria. These pathogens have been identified in human illness recently and are critical elements in the food safety monitoring efforts of our meat production facilities. We have completed 566 of the samples over this last year and look forward to an increased frequency and variety of tests to verify the wholesomeness of Utah meat products and the functioning of the new and individual control methods used within each plant in the state. Our goal is to maintain the highest quality and safety that the Utah meat consumer has been used to up to this point and validate that confidence level with the appropriate and timely testing.

This year has also been a banner year in our continued efforts of training our inspection staff. Over 2,384 hours of training have been given to our staff to maintain an up to date workforce and ensure the highest level of understanding in each of our staff. We feel that training is the best event that keeps the front line inspection staff abreast of changes and sharpening skills learned over the years. Our certified state trainer also received recognition as state trainer of the year for his progressive and exceptional efforts to keep the staff honed to the racer's edge.

We are looking forward to a new era in Utah inspected meats. Senator Orrin Hatch is reintroducing a bill to the United States Congress that would allow state inspected product to cross all borders and become equal to federally inspected meats. This will open many new markets to our meat and poultry production facilities in Utah. The United States Department of Agriculture will review our state meat inspection program annually to validate that it equals the federal program. The State of Utah has adopted all the federal standards many years ago and strictly adheres to all the federal standards. This will be a welcome addition to the meat and poultry inspection program and also to all those plants that work so hard to produce wholesome meat products. We eagerly anticipate the passage of this bill later this spring.

This past year has certainly been one for the Utah history book as we prepared for and assisted in the very successful 2002 Winter Olympic Games and 2002 Winter Paralympic Games. Our program worked to ensure the meat and poultry products supplied to the Olympic venues were wholesome, secure, and maintained for quality. Our inspection staff worked extra hours, odd hours, and throughout both events so participants and spectators could enjoy this extraordinary event. We eagerly and responsibly took the challenge to make this event a world-class effort. It was well received and well attended. We all feel that our efforts, though behind the scenes, were not without a significant addition to the success of this event. A once-in-a-lifetime experience that can be summarized in one word: outstanding!

## Livestock Inspection 2001

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 accidental straying or intentional theft of livestock. In addition to inspecting all cattle and horses at the state's eight weekly auctions, field inspections are done on all livestock prior to changing ownership, leaving the state and going to slaughter. During 2001, 766,431 cattle, horses and elk were inspected with \$1.3 million worth of livestock being returned to their proper owners. The 14 special function officers for the department help to enforce the livestock laws by issuing citations, working closely with county law enforcement personnel in conducting road blocks, doing theft investigations, and assisting in the removal of livestock from our highway system. During 2001, theft investigations led to the arrest and conviction of eight individuals with 153 head of cattle and horses being returned.

In addition to inspecting livestock, the livestock inspectors collect both Beef Promotion money and Predator Control money from the cattlemen as inspections are completed. This money is then forwarded onto the Utah Beef Council or Wildlife Services Program for their use. During 2001, \$683,060 was collected in Beef Promotion and \$115,607 in Predator Control.

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 signs requiring all livestock hauling vehicles to stop. This is an effort to help prevent diseased animals from entering and stolen animals from the leaving the state. A new port-of-entry was added in 1998 in Loma, Colorado on I-70.

Livestock inspectors also assist in the enforcement of animal health laws, this year working closely with the State Veterinarian in making sure all livestock men complied with the Trich bull testing regulations and as watchmen for the threat of Foot & Mouth disease. They also supervise the state's Farm Custom Slaughter Program, to insure that 45 licensed individuals provide a service to the citizens of Utah that allow them to have an animal home butchered and prepared in the best possible conditions.

The brand bureau played a significant role in the area of trespassing cattle. This included on the Ute Tribal grounds and the BLM on the Grand Staircase National Monument. We were involved in the writing of a MOU (Memorandum of Understanding) that gave direction to all parties as to how to deal with this type of a situation and insure that the property owners rights were not being violated.

Training of livestock inspectors and others within the division played a major role. This included the new area of organic farming, and the raising of organic livestock. The department and its employees have now become certified to inspect and insure the organic system, allowing ranches who participate to seek a premium price for their products, be it crops or livestock.

Renewal of some 23,000 livestock brands and earmarks was accomplished in 2000. As mandated by law, the process occurs every five years in order to keep brands current. A new brand book was published in the summer of 2001. The new brand

book and future supplements are available to the public at a cost of \$25.00. In addition to each brand owner being listed in the brand book, the department issued everyone a laminated wallet-size proof of ownership card. The ownership card is intended for use during travel and when selling animals at auctions.

### Elk Farming and Hunting Parks

During the 1997 legislative session, the Domestic Elk Farming bill was passed allowing the farming of domestic elk on an individual's property. The brand bureau was asked to regulate this new industry. In 1999, an amendment to the original law allowed the licensing of domestic elk hunting parks. These are larger facilities (300 acres or larger) where domestic elk may be harvested through normal hunting methods. Up to this time, the department has licensed 35 farms and 5 hunting parks. We are also in the process of licensing those zoo's and display facilities that have domestic elk. Livestock inspectors are involved in the inspection of new facilities and elk as they come and go from each licensee's farm or park. An individual animal identification system is in place that provides detailed information about each animal. This helps to verify ownership, health and genetic purity of every animal.

During 2001, a CWD (Chronic Wasting Disease) outbreak in several neighboring states caused the department to dispose of and test 34 domestic elk in Utah that were considered to be a low risk exposure. The results of these tests, as well as those on all elk that die on Utah farms, and 50 percent of the elk shot in hunting parks has shown no sign of CWD in domestic elk. Continued emphasis will be placed on monitoring all domestic elk for this disease and to prevent all high risk animals from entering Utah.

### UDAF Fish Health Program

By the end of FY 2001, 31 commercial aquaculture facilities (17 live fish sales, six dead fish sales, four fish processing plants, two combined fish processing plants and dead fish sales, and two in the approval process) and 91 fee fishing facilities were registered with the UDAF, Fish Health Program. New applications, (six fee fishing sites, two aquaculture sites, and one processing plant) were filed this year. One facility closed for live fish sales due to whirling disease. This shows the continued interest in aquaculture in Utah.

Twenty-five aquaculture sites were inspected for the presence of prohibited fish pathogens this year. Implementation of four biosecurity and health safety plans continued in an effort to prevent the spread of whirling disease.

Services extended to clients and the public include: 70 on-site consultations and distribution of information on aquaculture and fish diseases; on-site water quality tests conducted at 47 sites; 16 diagnostic cases involving fish losses, and laboratory work at the Smart Veterinary Diagnostic lab (histology, bacteriology, water quality, pesticide/heavy metals); issuing and renewing CORs to aquaculture, fee fishing, and fish processing facilities; collecting fish samples from 25 facilities including over 3,714 fish sampled (1996 fish for bacterial kidney disease; 3414 for viruses; 1590 for whirling disease; 960 for other; 290 warm water fish); issuing 42 fish health approvals (21 to instate facilities and 21 to out of state facilities). Forty-nine entry permits were issued for a total of 2,983,169 fish and eggs and 61,675 additional lbs. of fish im-

ported into Utah.

In August of 2001, the Fish Health Program took over the inspections of the Brine Shrimp Processing Plants. There are 23 Brine Shrimp companies currently being inspected. Most were inspected quarterly for a total of 60 inspections this year. They are inspected for sanitation, cleanliness, cyst disinfection and product testing and verification. They are also inspected to determine if foreign cysts are imported to Utah and also to ensure that waste products are disposed of properly.

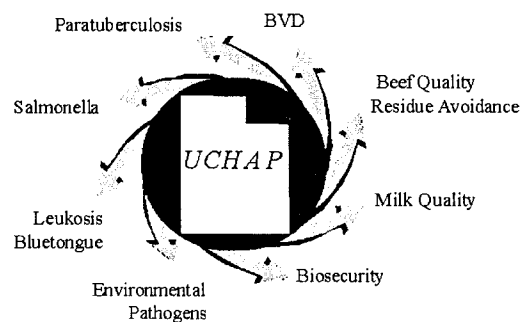
Program personnel have taken additional training to enhance knowledge and effectiveness to deal with fish health issues, customer service, and to prepare the fish health specialist for certification as American Fishery Society Fish Health Inspector. The Fish Health Program participates in continuing education lectures and presentations to further the knowledge of fish health and aquaculture.

One issue of "Aquaculture in Utah" newsletter was published in 2001. Articles dealt with the Fish Health Program web page, fish farming, brine shrimp plants, fish processing plants, and barley straw usage to prevent algal growth.

Two proposals were submitted for funding by aquaculture facility owners and reviewed by the program. One major investigation of rule infractions was undertaken during the period. This activity required hundreds of hours and resulted in fines and probation of the perpetrator.

The number of species requests forwarded to DWR was 17. The number of Fish Health Policy Board meetings attended was seven. The number of nuisance species meetings attended was two. The program is dedicated to the continuous improvement of fish health programs, reduction of unnecessary paperwork, customer satisfaction, and remaining within budget. Total savings to the taxpayer by UDAF was estimated at \$1,000.

It is the aim of the Fish Health Program to assist aquaculture operators to succeed in business and still prevent the spread of fish diseases. Often specialists work overtime and extra long days to complete these tasks.





# Chemistry Laboratory



Dr. David H. Clark  
Director

Laboratory Services 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 AA Raw Milk, Industry Laboratory Certification, Quality Milk, and Consumer Products. This laboratory is certified by FDA to perform standard plate counts, coliform counts, microscopic and electric somatic cell determinations, detect for antibiotic residues, ensure proper pasteurization, and measure fat and water content. Currently, there are 27 facilities with 150 analysts under the State Milk Laboratory Evaluation Officer (LEO) 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 to ensure label compliance of these products. Antibiotic residues and cross-contamination from other species are also monitored.

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, water, and milk products. These samples are submitted when inspectors suspect there may be a misuse of the application of the pesticide. Milk samples are tested once a year to ensure no pesticide contamination and maintain compliance with FDA.

Commercial feed (agricultural and pet) samples are tested for moisture, protein, fat, fiber, minerals, toxins, antibiotics, and vitamins in the Feed Laboratory. Seed moisture determinations are also performed for the seed laboratory. The Fertilizer Laboratory tests solid and liquid fertilizer samples for nitrogen, phosphorus, potassium, and trace elements. All feed and fertilizer results are compared to label guarantees.

Special Consumer Complaint Samples are also examined for the presence of undesirable materials such as filth, insects, rodent contamination and adulterations. The samples are checked to see if the complaints are valid, and if they are, turn the matter over to departmental Compliance Officers for follow up action. Ground and Surface Waters are monitored for the presence for pesticides, nitrates, and we also test for 25 elements and other water related parameters. This data is combined with other water data collected in the field to provide a picture on the quality of the state aquifers.

Accomplishments: Currently, 23 dairy laboratories with 120 analysts are listed as Appendix N testing facilities. All laboratories and analysts have demonstrated their proficiency by passing this year's splits. We continue to do all of the analyses on the ground water samples that were previously done at Utah State University with no apparent affects on laboratory production and quality. No pesticides have been detected in dairy producer samples collected last year and the ground water samples have shown a similar trend.

Meetings with chemists and supervisors from the different divisions continue to be held to discuss status of ongoing programs, problems that are appearing, new program needs, etc. We continue to work with USU Analytical Laboratory, a commercial laboratory in Idaho, and UDAF Grain Inspection on quality control for hay testing.

The division continues to perform very well on the check sample programs administered for milk, meat, feeds, fertilizers, and pesticide residue and formulation programs.

The following is a breakdown of sample analyses performed in the various programs in the Laboratory Services Division for the year 2000 and 2001.

	2000	2001
Federal/State Meat	193	84
State Meat	1,247	1,033
Montana Meat Samples	49	11
Dairy Microbiology	18,295	9,787
Fertilizer	699	714
Feed	837	1,335
Pesticide Formulation	0	23
Pesticide Residue	31	18
Special Samples	40	22
State Groundwater	22,259	31,790
Pesticide Residue in Milk	1,860	9,553
Salmonella	257	238
TOTAL	45,767	54,608

In addition to the above analytical work, a total of 8000 analyses were performed on various check sample programs. The check sample programs are vital and essential for maintaining quality control, quality assurance, and verifying accuracy of results on routine samples. 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 2001, there was approximately 897 State and Federal Phytosanitary Certificates issued under the direction of the State Entomologist. These certificates allow Utah agriculture to ship plants and plant products to other states and foreign countries. The State Entomologist also responded to more than 210 public requests for professional advice and assistance. Such assistance includes insect identification, news releases, control recommendations and participation in various 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 2001 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 2001 1010, traps were used in the adult survey. Since the programs beginning in 1985 property owners are contacted annually on orchard spray management techniques and removal of uncared for and abandoned orchards. Tree removal during 2001 exceeded 2000 trees in 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 2001, 21,000 colonies of bees were inspected with the incidence of disease below 2.5 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. Considerable education and public awareness activity has occurred since the African Honey Bee was discovered in Mesquite, Nevada in the summer of 1999.

### 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 with USU has provided beneficial parasitic wasps that prey on Cereal Leaf Beetle. These beneficial parasites have now spread to all northern Utah counties helping to reduce populations significantly. Additional cooperative investigations by Utah State University and the Utah Department of Agriculture and Food into the biology and life expectancy of Cereal Leaf Beetle in compressed hay bales may one day allow shipments of hay from infested areas of the state during certain times of the year.

### 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 biocontrol program that has had a 95% success rate. Moth catches have been reduced from 2,274 in 1989 to 2 in 2001. 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 and trapping programs will remain vigorous.

### Cricket/Grasshopper

The 2001 Fall Rangeland Insect Survey was completed the last week of August. Information from this survey indicates that we may have 1,390,100 acres infested with grasshoppers in 2002, and possibly 1,894,500 acres infested with Mormon Crickets. The information from the fall 2001 survey indicate the population of

both grasshoppers and Mormon Crickets may infested 3.3 million acres in 2002. Insect damages ranging upwards of 22.5 million dollars may be expected again this year. Large populations of these voracious insects in 1998, 1999, 2000, and 2001 prompted the Governors Declaration of Agricultural Disaster. Limited Federal and limited State funds provided some relief during 2001 but left many private farmers, ranchers and homeowners to use their own resources to control the infestation.

### Fertilizer Program

Administration of the Utah Commercial Fertilizer Act (Title 4, Chapter 13). The program regulates the registration, distribution, sale, use, and storage of fertilizer products. It regulates, and licenses fertilizer blenders and monitors the applicators that spray or apply fertilizer and take samples for analysis.

Major functions performed in this program in 2001

1. Number fertilizer manufacturers/registrants	216
2. Number of products received and registered	1,928
3. Number of products registered because of investigations	15
4. Number of fertilizers sampled, collected, and analyzed	268
5. Tonnage sales in Utah (July 1, 1999-June 30, 2000)	125,907
6. Number of samples that failed to meet guarantee	3
7. Guarantee analysis corrected	3
8. Number of inspection visits to establishments	645
9. Number of violations of the fertilizer Act	3
10. Number of blenders licensed	28

### 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
1999	34	17,145
2000	48	27,700
2001	28	7,324
Total to date	155	152,601 pounds (76.3 tons)

### Pesticide Product Registration Program

1. EMERGENCY USE PERMITS (Section 18).	
1997	- 1
1998	- 1
1999	- 2
2000	- 2
2001	- 3
2. SPECIAL LOCAL NEEDS (SLN).	
5 SLN labels filed in 2001	
3. EXPERIMENTAL USE PERMIT (EUP)	
2001	- 0

### Pesticide Product Registration

Number of pesticide manufacturers or registrants:	785
Number of pesticide products registered:	9,601
Number of new products registered as a result of investigation:	544
Number of violations of the Pesticide Act (Violation of old products not registered for current year):	12
Number of product registration requests by field representatives:	92

### Nursery Inspection Program

1. Number of licenses issued to handlers of Nursery stock	580
2. Number of Nursery Inspections conducted	836
3. Number of violations of the Nursery Act	44

### USDA Private Applicator Restricted Use Pesticide Record Program

1. Number private applicators records surveyed	100
2. Percent private applicators using RUP's products	45 %
3. Percentage of elements recorded as required	100 %
4. Percentage of private applicators without records	0 %

### Shipping Point and Cannery Grading Program

Number of Inspection	Pounds	Inspection
Apples	21	652,558
Cherries, Sweet	19	556,300
Cherries Tart	10	256,964
Onions	696	24,883,800
Potatoes	1	10,000
TOTALS	747	26,359,622

### 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 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 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 and does WPS training as necessary.

### Endangered Species Pesticide Program

Utah has developed an Endangered Species Pesticide Plan. This 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 an 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 Enforcement Program

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

#### Pesticide Activity

1. No. of inspections of pesticides sales establishments:	61
2. No. of physical pesticide samples collected:	18
3. No. of investigations of pesticide uses:	159
4. No. of violations:	52
5. No. of pesticide applicator training sessions:	25
6. No. of applicators certified Commercial, Non-Commercial, Private:	4,028
7. No. of pesticide dealers licensed:	81

#### 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 1999-2000 is summarized below:

1. Number of seed samples tested:	1,848
2. Number of violations determined:	35

#### Seed Testing and Seed Law Enforcement

The seed analysts and seed laboratory technician conduct tests on seed samples submitted by agricultural inspectors, seed com-

panies, and other interested parties. Most common tests include percent germination, 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. The thirteen agricultural field representatives located throughout the state made approximately 1,246 visits and inspections. This includes visits and or direct contact with the following agencies: Retail establishments; weed supervisors and other county officials; state agencies; federal agencies; utility companies; private landowners; and hay and straw certification personnel.

#### 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 23 counties; Inspections for 96 producers; Approximately 140,000+ bales inspected; Number of Inspections: 140

#### 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 2001 are summarized below:

1. Number of feed manufacturers or registrants contacted:	500
2. Number of feed products registered:	5,700
3. Number of analysis requested of chem. Lab:	1,335
4. Number of feed samples collected and tested:	496
5. Number of violations:	38

#### Grain Inspection

The Federal Grain Inspection Service provides under authority of Title 4, Chapter 2, Section 2, and under designated authority grain inspection services. 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:	13,045
2. Number of miscellaneous tests conducted:	21,523
3. Total number of activities performed:	34,523

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

Mission - UDAF works towards accomplishing the food program's mission of ensuring:

- Foods are safe, wholesome, and sanitary.
- Food products are honestly, accurately, and informatively represented.
- These products are in compliance with Utah's laws and rules.
- Non-compliance is identified and corrected.
- Unsafe or unlawful products are removed from the marketplace.

Food Program Activities – The Utah Department of Agriculture and Food conducted 327 more inspections in 2001 than in 2000. This is a 9 percent increase with the same amount of resources. The number of facilities in a given category and the number of inspections conducted in each category are indicated below.

## Food Compliance Program

Food Safety and Security – The American food safety system is justifiably admired around the world. Consumers are provided with an abundant supply of convenient, economical, high quality and safe food. Protecting the safety and quality of the food supply is one of the Utah Department of Agriculture and Food (UDAF), Division of Regulatory Services main functions. UDAF's oversight of food safety, wholesomeness and labeling has contributed greatly to the safety of the food system.

The September 11, 2001, terrorist attack on New York and Washington generated a heightened awareness of the fact that food and water are targets for tampering and criminal or terrorist activity. UDAF is working to shift industry's paradigm into thinking about the security of food as well as the food safety aspects. We are seeking to educate food establishments on measures that can be taken to minimize the risk of food being subjected to tampering.

## Enforcement

Food Product Control - The Utah Wholesome Food Act includes two main areas of responsibility: adulteration and misbranding. A food is adulterated if it contains any poisonous substance, which may render it injurious to health, or if it has been produced or stored under conditions whereby it may become contaminated with filth, or rendered diseased, unwholesome or injurious to health. Misbranding is when food products are improperly labeled or missing key information.

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 Destructions, Hold Orders and Releases. In 2001, 25 hold orders involving 41,933 pounds of food and six hold order releases were issued. Forty-six voluntary destructions were agreed upon involving 66,919 pounds of food. The food was destroyed because it was suspected of being adulterated.

Warning Notices - When voluntary compliance cannot be achieved, we take additional regulatory action in the form of Warning Notices and Administrative Action. In 2001, UDAF sent out 51 Warning Notices concerning non-compliance with the Utah Wholesome Food Act (WFA) and the Utah Food Protection Rule (FPR).

Citations - Seven citations were issued in 2001. Four were issued to supermarkets, one to a dairy, one to a meat store and one to a bakery. Citations continue to be an effective enforcement tool.

## INSPECTIONS 2001

ESTABLISHMENT TYPE	NUMBER	INSPECTIONS
Bakeries	389	677
Grain Processors	9	15
Grocery Stores	1,204	1,805
Meat Departments	341	652
Food Processors	433	654
Warehouses	265	302
Water Facilities	26	43
<b>TOTAL</b>	<b>2,667</b>	<b>4,148</b>

## Food Program Priorities

Organic Standards Rule - Organic foods are agricultural products that are produced under standards that prohibit or limit substances such as pesticides or genetically engineered organisms. This year the Department adopted a new Organic Standards Rule. The consumer's interest in healthy diets and their concern about additives present in many processed and traditional type food products drove the adoption of this Rule.

This Rule is a great benefit to both the agricultural industry and the public. This program will facilitate the marketing of fresh and processed food that is organically produced. It assures consumers that such products met consistent uniform standards. These standards are voluntary and will not impact industry unless they choose to participate in the organic program. Under this new program organic producers and processors will have the opportunity to be certified by Utah.

Olympics - The 2002 Winter Olympics are now over and the time spent planning and implementing the plan was well worth it. The public health aspects of the Olympics went extremely well. No major foods borne illnesses were reported.

Regulatory Services was a member of an alliance called the Environmental Public Health Alliance or EPHA. The Alliance was comprised of six local health departments and UDAF, the Department of Health and the Department of Environmental Quality. The Alliance formed work groups and committees to cover the broad public health and environmental aspects of the Olym-

pics. EPHA's planning ensured risks were minimized and problem areas were addressed and resolved quickly.

UDAF participated on the steering committee for EPHA, the drinking water committee, the food safety work group, the import committee, the food training committee, the enhanced operations committee, the rapid response committee, and the venue team leader committee. These teams designed training programs, inspection sheets, standardized procedures and policies, wrote rules and put together systems to ensure public and environmental health was well protected during the Olympics. Industry and the Salt Lake City Organizing Committee (SLOC) appreciated the unified approach.

Within our Division, we put together an inspection team. Team members were the environmental health specialists in the counties where the venues were located. UDAF had four main areas of responsibility for the Olympics. First, we provided food safety inspections for the SYSCO Foods warehouse, which was the sole food supplier for the Olympic venue sites. Second, we inspected Compass, who manufactured the boxed lunches. More than 320,000 lunches were manufactured for the volunteers during the Olympics. During the paralympics 20,000 boxed lunches were made. Third, Restaurant Associates, a Compass subsidiary, manufactured and catered food for the USA house, the opening and closing ceremonies at Rice Eccles Stadium and the Medals Plaza. Fourth, UDAF employees were on a rapid response team designed to act as back up or emergency support for the local county health departments if additional resources were needed. It was a challenge for UDAF to provide Olympic food inspection coverage as well as the routine food program coverage with no additional resources.

Farmer's Markets - Historically farmer's markets have sold raw agricultural products to the public. In the past few years we have seen a revival of these markets. They operate from August through October. The modern farmer's market is very different than those of the past. There are increased activities relating to food service and other types of food processing taking place outdoors. Food samples are being given to consumers. UDAF developed guidelines for industry to follow because this is a unique area that is not adequately covered in Utah's Food Protection Rule. To adequately address the issue and problems that we were seeing at the farmer's market we decided to work with local county health departments. This approach worked very well. It ensures a uniform approach to the food inspection process preventing industry confusion.

Chili Roasters - There was an increase in popularity of purchasing and consuming bulk roasted green chilies. UDAF investigated the situation and found over 20 of these seasonal chili-roasting operations in Utah. According to the Food Protection Rule, roasted green chilies would be considered a potentially hazardous food. These are foods that are capable of growing microorganisms that could lead to illnesses. We became very alarmed that chilies were being roasted in farmer's fields, backyards and garages with no form of protection against environmental contaminants or without running water. Basic food safety practices, such as the washing of hands, were not taking place. The food safety issues surrounding roasting chilies without proper facilities are equivalent to cutting meat outdoors. UDAF took enforce-

ment action throughout Utah against individuals and companies roasting chilies without being in compliance with agriculture's laws and rules pertaining to food safety. This was a very emotional issue for many businesses that had been doing this for years. They put pressure on the Department to change its enforcement practices. We stayed with our original decision to stop the chili roasting operations unless the chili roasting operations complied with Utah's requirements for a food facility because of the extreme risk associated with processing this type of product.

Non-traditional Food Establishments - UDAF received a call from a local county health department. They had a popcorn business in their area that had been popping popcorn and packaging it in a tent located in the Wal-Mart parking lot every Saturday. The business had been doing this for over a year. The county health department had given this food establishment a permit to operate. Now the health department was wondering whether it should have allowed food processing to take place in a tent. They had not required any of the basic construction items such as floors, walls and ceiling, handsinks and warewashing sinks. They wanted our help. At first, the health department looked at it like a temporary food service type operation that you would see at a fair. UDAF thought of it as someone processing food in the parking lot of Wal-Mart. One of our food safety responsibilities is ensure the environment in which food is produced is clean and sanitary. We issued a Cease and Desist to the company. They were very upset stating that the food code was not being enforced uniformly across the state. UDAF recognized the great diversity in the types of non-traditional food establishments. Each local health department looks at these facilities differently. The food code does not adequately address temporary food facilities making enforcement difficult. The lack of standardization affected UDAF because we have jurisdiction throughout the state. We decided that we needed to bring the Utah Department of Health in to assist us in achieving uniformity in this area. A committee was formed to develop definitions and guidelines for non-traditional food facilities. Education of industry and the local health department is being implemented to ensure the success of this workgroup.

### **Meat Compliance Program**

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.

The State of Utah has experienced little if any conflict with implementation of the HACCP program at meat production facilities. Compliance stands ready to assist with documentation and prosecution of any violations and has assisted with collection of several outstanding bills for service. The planned compliance review program continues to monitor all custom exempt plants, farm custom slaughter facilities and game processors for compliance. The centralization of the meat packing industry has forced an increase in the numbers of animals processed by exempt facilities.

This year the final determination of amenability of central kitchens to full time inspection was handed down. One "state of the art" central kitchen affected by the decision applied and was granted official inspection. The Utah Department of Agriculture and Food, Meat Compliance Program successfully argued for ex-

emption from official inspection for kitchens providing meals to the public and athletics of the 2002 winter Olympics hosted by Utah. Appropriate food safety monitoring and inspection was accomplished by a correlation of food safety experts from agriculture, EPA, health departments and professional food service organizations. The success of the food service portion of the 2002 Olympics supported our measured and common sense approach. Utah enjoys a high degree of compliance with the federal mandate to provide "Safe Handling Labels" on all fresh meat and poultry products. Three Warning Notices were issued to firms not in compliance. The Meat Compliance program continues to notify firms of non-compliance with Safe Handling, or other labeling violations. Utah also found significant compliance with the new regulation requiring shell eggs be stored, transported and held at ambient temperatures of 45 degrees or cooler, one firm was issued notice of non-compliance. The past year showed a dramatic decrease in food-borne illness associated with Salmonella Enteritidis in shell eggs. The 41 confirmed Salmonella enteritidis cases reported during 2001 was an 86 percent decrease from the 299 confirmed cases reported during 2000! These are the lowest numbers we have seen in several years. Aggressive enforcement of food code refrigeration rules and the response of industry and government official to last years outbreak accounts for this important decrease. Meat Compliance is responsible for accurate trace-back and documentation of implicated products.

During the calendar year 2001 the Meat Compliance Program conducted 1,294 random reviews of state businesses and 556 reviews at facilities not generally inspected by meat compliance officers. The division also 43 planned compliance reviews of previous violators of meat laws. Compliance investigations resulted in 17 letters of warning being issued. A citation for \$100 was issued for the illegal slaughter of lambs and goats. Compliance officers collected more than 500 ground beef samples, which were analyzed by the State Chemist for fat, sulfites and added water. The results showed a decline in compliance with 18 percent high in fat content and approximately 5 percent significantly high. During 2002 increased emphasis will be given to this matter. The Meat Compliance is faced with a growing problem, of improper use of retail stores as suppliers of meat to restaurants. We will focus significant effort to educate and obtain compliance with laws and restrictions to these types of sales.

### **Egg & Poultry Grading**

The Egg and Poultry Grading program provides a needed service to the egg and poultry industry and the consumers of Utah. Grading provides a standardized means of describing the marketability of a particular product. Through the application of uniform grade standards both eggs and poultry can be classified according to a range of quality characteristics. Buyers, sellers and consumers alike can communicate about these characteristics through a common language. These grading services are made possible through cooperative agreements with the USDA. We administer this service using licensed department employees, USDA Standards, regulations and supervision. The use of the official USDA grade shield certifies that both eggs and poultry have been graded under the continuous inspection of grading personal.

Program activities include:

Shell Egg Grading	Egg Products Inspection
Shell Egg Surveillance	Poultry Grading

### **Shell Egg Grading**

The egg producers of Utah produced 2,369,000 (30 Dozen per case) cases of shell eggs in 2001. Approximately 25 percent of those eggs were USDA graded by licensed graders. The shell egg grading section has also seen a dramatic increase in the number of eggs being USDA graded for the ultimate consumer. In years past, the USDA grading of shell eggs in Utah was done primarily for institutional buyers of shell eggs. Consumer graded shell eggs in 2001 accounted for approximately 51 percent of all eggs graded in Utah. A total of 588,746 (30 Dozen Case) cases where graded by licensed graders in Utah this past year 2001. This is a 272,482 (30 Dozen Case) case increase from last year, or about an 86 percent increase.



An additional employee was hired to assist in providing coverage at the Delta Egg Farm Plant, as coverage is now needed there seven days per week. In 2001 grading personnel offered presentations to elementary age children. They explained the USDA grade mark and what it means to the consumer when purchasing USDA graded eggs.

On September 1, 2001, the Food and Drug Administration implemented a new labeling requirement, which is a part of the President's Action Plan to Eliminate Salmonella Enteritidis. All shell eggs destined for the ultimate consumer must carry the following safe handling statement on the shell egg carton. Compliance with this requirement has been very good.

The Utah egg industry continues to work on the concerns associated with Salmonella Enteritidis. As the producers work to prevent illness, the consumer must do their part to handle eggs properly or the diligent efforts of the producer will have gone to waste. Even though only a few eggs may be contaminated, (1 in 20,000 eggs may carry the infection Salmonella Enteritidis) we still need to continue refrigerating and cooking eggs properly.

During 2001 McDonalds, Burger King and Wendys all announced requirements for suppliers in regards to the humane treatment of egg producing type hens. They all included basically the same requirements. More cage space, banning the practice of withholding feed to increase production and elimination of the practice of debeaking. This could have a big impact on the egg industry not only in Utah but also in the nation. In the European countries force molting has already been banned and by the year 2012 caged chickens will be phased out. Consumers today can buy eggs in the retail market that are raised cage free. These eggs typically sell for a much higher price and are produced at smaller operations. For a buyer the size of McDonalds who purchases 1.5 billion eggs annually finding that many eggs of this type could be a challenging task. Both the egg industry and government agencies are looking at these issues. We should see changes in management practices in the coming years.

### Egg Products Inspection

The Egg Products Inspection Act provides for the mandatory continuous inspection of the processing of liquid, frozen and dried egg products. Egg products are inspected to ensure that they are wholesome, properly labeled, and packaged to protect the health and welfare of consumers. Egg products are used extensively in the food industry in the production of food products and by restaurants and institutions in individual meal service.



For many years the per capita consumption of eggs declined. This was due to health concerns and lifestyle changes. But it would appear that the consumption of egg has been on a steady increase since 1991, when the per capita consumption was 233.7 eggs per person. In the year 2001, the per capita consumption of eggs was 259.9. Part of the reason for this increase is the demand for further processed eggs. The further processing of eggs adds greater product stability, longer shelf life, and ease in preparation and storage as well as product safety. It is predicted that this trend will continue and we should see continued growth in the egg breaking industry.

During the year 2001, 189,260 (30 Dozen per case) cases of shell eggs were processed into liquid or frozen egg products in Utah. This is an increase of about 26 percent over the previous year. This compares to the year 2000, where 140,497 (30 Dozen per case) cases were processed.

Shell Egg Surveillance - The Egg Products Inspection Act also requires that all egg producers with over 3,000 layers, firms grading and packing eggs from production sources other than their own, and hatcheries be registered with USDA. These firms are visited quarterly to verify that shell eggs packed for the consumer are in compliance, that restricted eggs are being disposed of properly, and that adequate records are being maintained.

### Poultry Grading

In 2001, the licensed grading staff at Moroni and Salina was responsible for grading 81,279,368 lbs. of processed turkeys and turkey products.

Poultry Graders were also involved in the processing of Donated Poultry Commodities. Donated cooked diced chicken was processed into chicken pot pies. These pies were used in the school lunch program and during 2001, 81,312 pies were processed.

Two Utah plants were added as part time USDA Poultry plants in 2001. Lower's Meats are involved in the processing of poultry bearing the "Prepared from Grade A" mark. This plant will be provided coverage by an USDA FSIS inspector. Shepherd Foods Inc. processes donated poultry commodities and coverage for this plant is provided using existing grading personnel.



Retail Egg Grading - During the year 2001, state egg graders conducted a sampling of retail eggs. These eggs were graded for quality, checked for refrigeration requirements and labeling requirements. A total of 45 stores were visited throughout the state. A total of 1,810 cases of eggs were graded and compliance with the regulations appeared to be good.

### Dairy Compliance Program

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

Drug Monitoring Program - The entire dairy industry has been sensitized to the concern over the presence of animal drug residues in milk. It is the responsibility of the Utah Department of Agriculture and Food to monitor industry surveillance activities to ensure that drug residue screening tests are performed in accordance with acceptable methods and requirements.

Drug residue screening is a heavily regulated aspect of the dairy industry. Among the many regulations there is now a list of prohibited drugs. There are 12 substances including antibiotics and minerals that are on the list of banned substances that are not allowed to be used on dairy farms. Both federal and state regulatory agencies consume a great amount of time and energy examining paper work and performing audits, evaluations, inspections, and sampling in checking for compliance with existing requirements which are in place to ensure that Utah's milk supply is free from animal drug residues.

Approximately 1 billion pounds of milk was produced in Utah during the year 2001. During the year 0.175 percent or 1.75 million pounds of milk produced in the state was discarded due to antibiotic residues. This is up 250,000 pounds from the year 2000. In all, there were 40 milk tank trucks of milk that had to be rejected because the milk could not be allowed to be processed or enter into the human food chain because the milk contained animal drug residues. This demonstrates how well the surveillance activities are actually working to ensure that milk contaminated with animal drug residues is identified and removed from the normal flow into commerce and market channels.

NCIMS - The May 2001 National Conference on Interstate Milk Shipments (NCIMS) approved a two year extension to the Dairy Hazard Analysis Critical Control Point (HACCP) Inspection Pilot Program. Utah will have two dairy plants participating in this voluntary pilot program. Gossner Foods has chosen to continue on from the first phase and The Dannon Company has been selected to participate in the second phase. Kyle R. Stephens, Director, Division of Regulatory Services, was elected to the Executive Board of the NCIMS Conference representing the 13 western states. This is the first time anyone from Utah has been elected to the board.

This program continues to seek voluntary compliance whenever possible. However, when voluntary compliance cannot be achieved, regulatory action is initiated. During the calendar year 2001, there were 2145 inspections conducted; 102 administrative letters were written; 58 permits were suspended; 2 administrative hearings were held; and 1.75 million pounds of adulterated milk and milk products were removed from commerce by Utah Dairy Compliance Officers.



### Dairy Program Statistics

TYPE	NUMBERS	INSPECTIONS
Grade A Farms	356	1369
Manufacturing Farms	44	166
Dairy Processors	45	359
Raw to Retail Dairies	4	21
Milk Hauler/Samplers	244	67
Milk Trucks	336	163

### Bedding, Upholstered Furniture, & Quilted Clothing Program

The purpose of the Bedding, Upholstered Furniture and Quilted Clothing Program is to protect consumers against fraud and product misrepresentation, to assure Utah's 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 Department of Agriculture and Food for their particular type of business before offering items for sale within the state. Application forms and other program materials are available at the following URL:

<http://ag.utah.gov/regsvcs/regservices.html>

Product labels are required to indicate whether the product is made from new or secondhand materials and to disclose filling materials by name and percentage. This enables consumers to make price/value/performance-based buying decisions. It also encourages fair competition among manufacturers by establishing uniformity in labeling and accurate component disclosure.

Utah has amended their Bedding, Upholstered Furniture, and Quilted Clothing Rule to adopt by reference ABFLO's standard for plumage-filled articles of bedding and furniture. Similar requirements for the labeling of plumage-filled clothing have been written. Products shall only be labeled "Down" if they contain a minimum of 75 percent down and plumules. Articles containing a mixture of down and feathers must show the percentages of each contained therein. The rule will eliminate tolerances in the down content in conformance with FTC's Truth in Advertising requirements and will promote national uniformity.

License fees fund an inspection program, which allows products to be examined and tested to ensure contents are accurately labeled. During 2001, 1185 licenses generated \$63,000 in general revenue making the program self-sustaining.

### Food Labeling Program

The State of Utah has adopted labeling regulations as set forth in the Code of Federal Regulations (CFR) and reviews labels to assist manufacturers to comply with these regulations. Label reviews help new producers avoid costly reprinting of incorrect labels and help assure that consumers get complete and accurate information in a uniform format on all food 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 identified increased food security and safety as their #1 goal for 2002. Proper labeling of food allergens

is an important part of their food safety program.

Manufacturers are responsible for ensuring that food is not adulterated or misbranded as a result of undeclared allergens. FDA believes the following foods account for more than 90 percent of all food allergies: legumes (such as peanuts and soybeans), milk, eggs, fish, crustacea, mollusks, tree nuts, and wheat. The CFR provides that spices, flavors, and certain colors used in foods may be declared collectively without naming each one individually. However, in some instances, these ingredients contain sub-components that are allergens. Evidence indicates that some food allergens can cause serious reactions even when present in very small amounts. Therefore, the presence of an allergen, even as a sub-component of another ingredient, must be listed in the ingredient statement.

Manufacturers, who produce a variety of foods, some with and others without allergenic ingredients, must take care that there is no cross-contamination between product lines. FDA urges manufacturers to examine their production sequencing and cleaning procedures for equipment commonly used for more than one food product. Manufacturers should also be aware of ingredients in foods that may be reworked into other food products. Some food manufacturers have voluntarily included allergen statements on their labels, such as: "Made in an establishment that also processes nuts." Such statements do not reduce the necessity for good manufacturing practices, nor relieve the manufacturer of liability for food adulterated with allergenic ingredients from another food.

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 to read and understand the label and make choices based on their personal needs.

### Weights and Measures Program

The Weights and Measures Program involves all weights and measures of every kind and any instrument or device used in weighing or measuring application. The purpose of the program is to ensure that equity prevails in the market place and that commodities bought or sold are accurately weighed or measured and properly identified. Unannounced inspections are routinely conducted. Weights and Measures also respond to consumer complaints. These activities are enforced through the Utah Weights and Measures Act and five accompanying administrative rules. In the year 2001, emphasis was given to consumer protection in the area of price verification, package inspection, liquefied petroleum meters, scale inspections, gasoline pumps and petroleum and water meters.

The Weights & Measures Program operates in the following areas:

General Inspections - Scales are inspected to insure that they are accurate for the services in which they are used, installed properly, and positioned so that customers can see the display.

Weights and Measures inspectors pump fuel into a certified test measure to check for the accuracy of the amount of product delivered by the dispenser.

Scanner Inspections may be conducted in any type of store. Scanner pricing errors adversely affect retailers and consumers. Re-

tailers lose profits on undercharges and consumers lose money on overcharges. Price Verification inspections ensure that consumers are charged the advertised price for the items they purchase.

Weights and Measures officials check packaged products to be sure they contain the quantity stated on the label. Inspectors take random samples of packages in stores and count the items in the packages. Officials weigh or measure the contents to see if the labeled quantity is accurate.

Our inspectors checked 5,689 small capacity scales (0 – 999lbs.) and 13,467 gasoline pumps. Every type of item is subject to either a scanning inspection, package checking, or label review. In 2001, there were 15,394 packages and 30,977 scanners checked.

**Large Capacity Scales** - Large-scale capacities include 1,000 lbs. and up. These devices may include scales used for weighing livestock, coal, gravel, vehicles, etc., within inspections conducted at auction yards, ranches, ports of entry, mine sites, construction sites, gravel pits and railroad yards, etc. A total of 1,278 large capacity scale inspections were conducted in 2001.

**Liquified Petroleum Gas Meters** - Our weights and measures LPG inspector provides inspections to all Utah Vendors dispensing LPG either through dispensers or delivery trucks. In 2001, there were 272 propane meters inspected throughout the state. These inspections included checking appropriate installation and calibration of propane dispensers and meters.

**Large Capacity Petroleum and Water Meters** - Inspections are conducted on airport fuel trucks, fuel delivery trucks, cement batch plant water meters and other large meters. There were 333 inspections conducted in 2001.

**Metrology Laboratory** - The Metrology Laboratory is operated and maintained by one person. The state maintains standards of mass, length, and volume. In the year 2001, 601 artifacts from industry and 215 artifacts from the Utah Weights and Measures Program were tested for a certificate of calibration certificate. These include calibration services in mass, length, and volume, using standards that are traceable to the National Institute of Standards and Technology.

Consumers rely on the services of this facility to certify equipment used for weight, length or volumetric measurement in commercial business.

**Motor Fuel Laboratory** - The Motor Fuel Laboratory maintains a high standard of testing for motor fuel quality. For the year 2001, 27 complaint cases required investigation and validation of claims. Of the 27 cases, 26 were determined to be valid requiring further investigation. Of the 26 cases that were investigated, we were able to help consumers recoup monetary losses. The money that was recouped was approximately \$2,250. The compensation was for repairs performed on vehicles with fuel related damage that had been properly and accurately diagnosed by professional mechanics. After the diagnosis by the professional mechanics, Utah Motor Fuel Testing Laboratory also verified the validity of the claims.

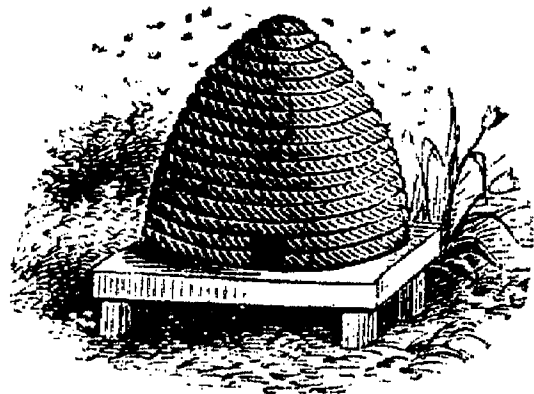
Two primary reference octane standards were obtained and the actual value was assured using the knock engine in the Utah Motor Fuel Testing Laboratory prior to using them as secondary or field standards. This was to provide fresh field standards for use in the portable octane analyzers. It was determined that our knock engine instrument and test methods yielded the same results as those of the refineries and the round robin groups that the refineries belong to.

As population and industry growth continues, so does the need to provide weights and measures inspection services.

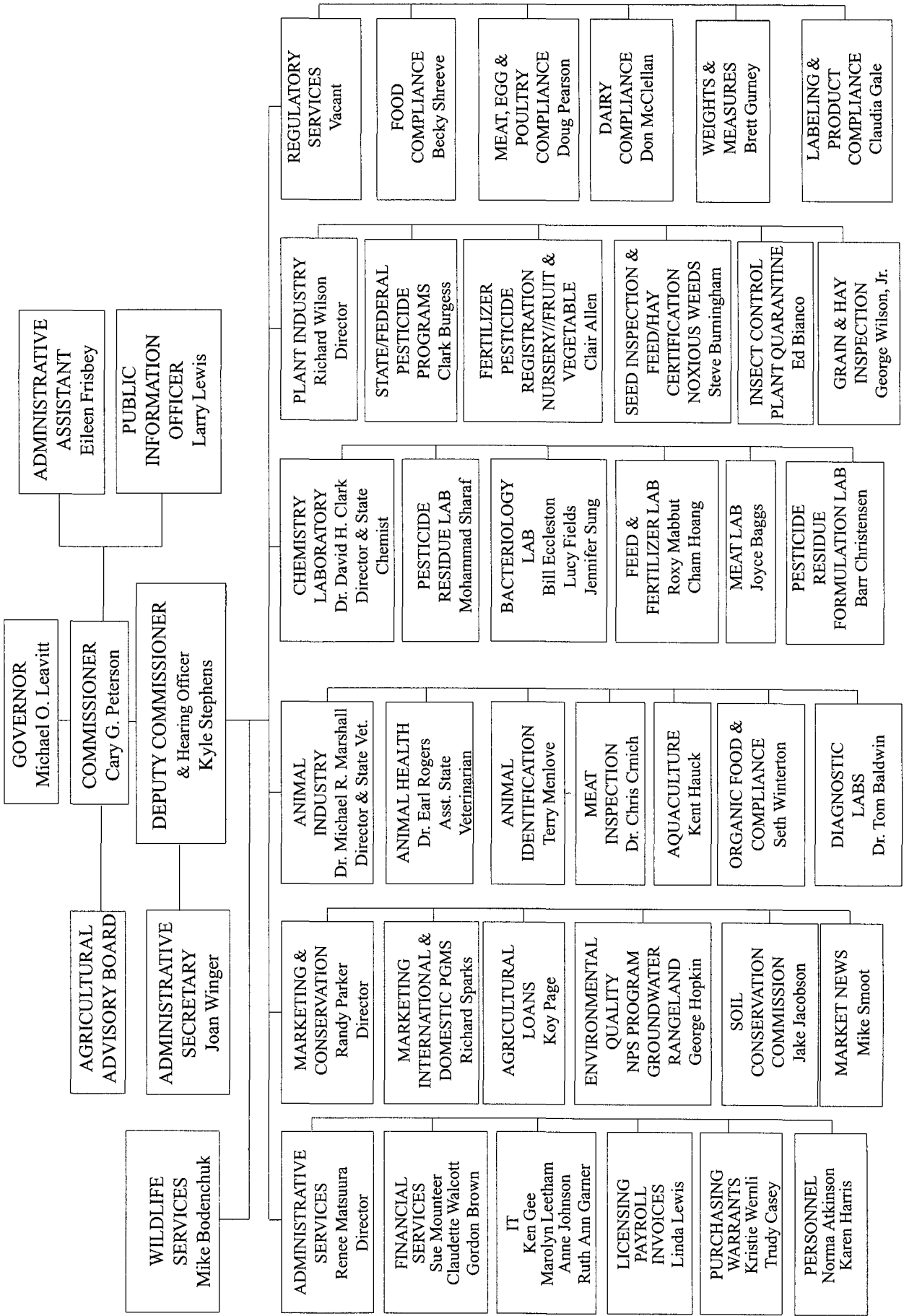
### **Adjudicative Proceedings**

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 administrative actions and provides opportunity to a hearing. During 2001, the department conducted a total of two administrative hearings. These actions resulted in \$14,500 in civil penalties being assessed against Utah businesses, with a total of \$1,500 being paid and the balance set aside as a part of a probation agreement. The number of hearings conducted declined during this time period and is due in large part to the fact that the department promulgated administrative rules, in March 1999, giving the department the authority to issue citations for violations to the agricultural code. A citation, of up to \$500, can be issued for violations without proceeding to a hearing. During 2001, the department issued 23 citations for a total of \$4,000 in fines.

The department's administrative procedures are an effective tool in gaining compliance without going through the legal system, but still afford individuals and companies their due process rights.

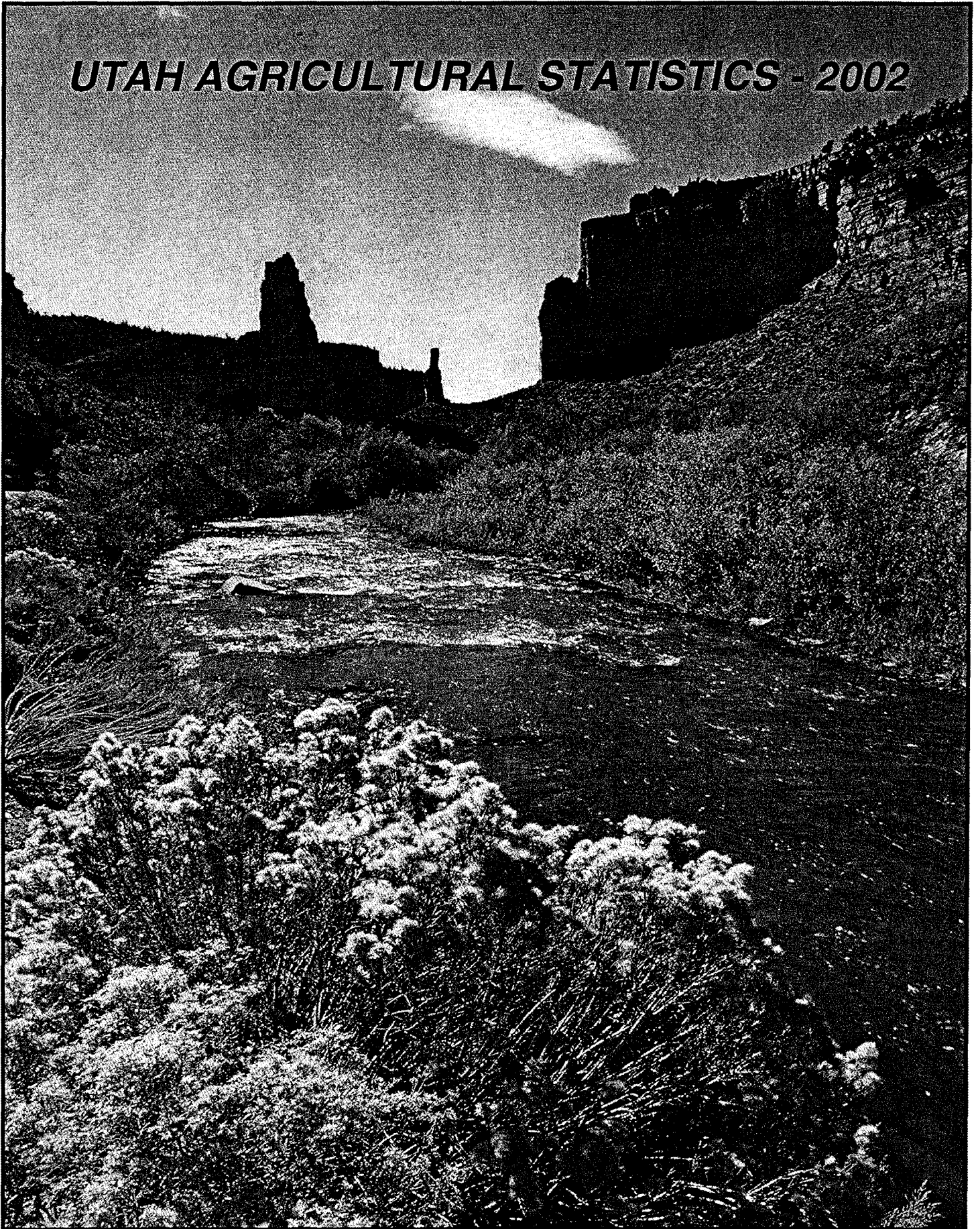


UTAH DEPARTMENT OF AGRICULTURE AND FOOD  
ORGANIZATIONAL CHART



# Notes

# *UTAH AGRICULTURAL STATISTICS - 2002*



## County Total Population, United States Census, Utah, 1990, 2000, and 2001 Estimate

County	Total Land Sq Miles	Total Population						
		Number			Percent of State Total <sup>1/</sup>		Per Square Mile	
		1990	2000	July 1 2001 Est <sup>2/</sup>	1990	2000	1990	2000
Beaver	2,590	4,765	6,005	6,198	0.3	0.3	1.8	2.3
Box Elder	5,724	36,485	42,745	43,245	2.1	1.9	6.4	7.5
Cache	1,165	70,183	91,391	93,372	4.1	4.1	60.3	78.4
Carbon	1,479	20,228	20,422	19,858	1.2	0.9	13.7	13.8
Daggett	698	690	921	944	0.0	0.0	1.0	1.3
Davis	305	187,941	238,994	244,845	10.9	10.7	617.2	783.6
Duchesne	3,238	12,645	14,371	14,646	0.7	0.6	3.9	4.4
Emery	4,452	10,332	10,860	10,473	0.6	0.5	2.3	2.4
Garfield	5,175	3,980	4,735	4,630	0.2	0.2	0.8	0.9
Grand	3,682	6,620	8,485	8,423	0.4	0.4	1.8	2.3
Iron	3,299	20,789	33,779	34,920	1.2	1.5	6.3	10.2
Juab	3,392	5,817	8,238	8,570	0.3	0.4	1.7	2.4
Kane	3,992	5,169	6,046	6,037	0.3	0.3	1.3	1.5
Millard	6,590	11,333	12,405	12,326	0.7	0.6	1.7	1.9
Morgan	609	5,528	7,129	7,297	0.3	0.3	9.1	11.7
Piute	758	1,277	1,435	1,404	0.1	0.1	1.7	1.9
Rich	1,029	1,725	1,961	1,983	0.1	0.1	1.7	1.9
Salt Lake	737	725,956	898,387	918,279	42.1	40.2	984.5	1,219.0
San Juan	7,821	12,621	14,413	14,063	0.7	0.6	1.6	1.8
Sanpete	1,588	16,259	22,763	23,219	0.9	1.0	10.2	14.3
Sevier	1,910	15,431	18,842	19,180	0.9	0.8	8.1	9.9
Summit	1,871	15,518	29,736	31,279	0.9	1.3	8.3	15.9
Tooele	6,946	26,601	40,735	44,431	1.5	1.8	3.8	5.9
Uintah	4,477	22,211	25,224	26,049	1.3	1.1	5.0	5.6
Utah	1,998	263,590	368,536	385,692	15.3	16.5	131.9	184.5
Wasatch	1,181	10,089	15,215	15,947	0.6	0.7	8.5	12.9
Washington	2,427	48,560	90,354	95,584	2.8	4.0	20.0	37.2
Wayne	2,461	2,177	2,509	2,509	0.1	0.1	0.9	1.0
Weber	576	158,330	196,533	200,567	9.2	8.8	275.1	341.2
<b>State Total</b>	<b>82,168</b>	<b>1,722,850</b>	<b>2,233,169</b>	<b>2,295,971</b>	<b>100.0</b>	<b>100.0</b>	<b>21.0</b>	<b>27.2</b>

<sup>1/</sup> Counties may not sum to 100 percent because of rounding. <sup>2/</sup> Utah Population Estimates Committee.



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

Top Six States						Utah's Rank	United States Total
First	Second	Third	Fourth	Fifth	Sixth		
<b>GENERAL</b>							
<b>Number of Farms &amp; Ranches, 2001</b>							
TX	MO	IA	TN	CA	KY	36	
227,000	108,000	93,500	91,000	88,000	88,000	15,000	2,157,780
<b>Land in Farms &amp; Ranches, 2001 (1,000 Acres)</b>							
TX	MT	KS	NE	NM	SD	26	
130,000	56,500	47,400	46,400	44,000	44,000	11,600	941,210
<b>Cash Receipts from Farm Marketings, 2000 (1,000 Dollars) <sup>1/</sup></b>							
CA	TX	IA	NE	KS	MN	37	
25,509,829	13,343,556	10,774,252	8,951,881	7,905,407	7,522,018	1,010,202	193,585,849
<b>FIELD CROPS</b>							
<b>Harvested Acreage Principal Crops, 2001 (1,000)</b>							
IA	IL	KS	ND	MN	NE	37	
24,348	23,228	21,849	19,557	18,937	18,750	988	303,818
<b>Corn for Grain Production, 2001 (1,000 Bushels)</b>							
IA	IL	NE	IN	MN	OH	40	
1,664,400	1,649,200	1,139,250	884,520	806,000	437,460	2,130	9,506,840
<b>Corn for Silage Production, 2001 (1,000 Tons)</b>							
WI	CA	PA	NY	MN	NE	28	
11,310	8,190	7,840	7,760	7,000	4,950	924	102,352
<b>Barley Production, 2001 (1,000 Bushels)</b>							
ND	ID	MT	WA	CO	MN	10	
79,750	50,250	29,520	21,000	8,560	7,975	4,420	249,590
<b>Oats Production, 2001 (1,000 Bushels)</b>							
ND	MN	WI	IA	SD	PA	27	
14,880	12,600	12,480	9,100	7,800	7,475	390	116,856
<b>All Wheat Production, 2001 (1,000 Bushels)</b>							
KS	ND	WA	OK	TX	MT	34	
328,000	292,400	132,580	122,100	108,800	96,570	6,034	1,957,643
<b>Other Spring Wheat Production, 2001 (1,000 Bushels)</b>							
ND	MN	MT	SD	ID	WA	9	
234,600	79,200	65,550	64,350	33,320	25,830	784	512,608
<b>Winter Wheat Production, 2001 (1,000 Bushels)</b>							
KS	OK	TX	WA	CO	OH	31	
328,000	122,100	108,800	106,750	66,000	60,300	5,250	1,361,479
<b>All Hay Production, 2001 (1,000 Tons)</b>							
TX	SD	CA	KS	MO	NE	26	
10,837	9,150	8,915	7,980	7,853	7,578	2,536	156,703
<b>Alfalfa Hay Production, 2001 (1,000 Tons)</b>							
CA	SD	NE	MN	IA	ID	14	
7,272	6,600	5,148	5,075	4,625	4,368	2,200	80,266
<b>All Dry Edible Beans Production, 2001 (1,000 Cwt)</b>							
ND	NE	CO	CA	MN	ID	18	
6,200	3,185	1,785	1,602	1,575	1,424	17	19,541
<b>All Potato Production, 2001 (1,000 Cwt)</b>							
ID	WA	WY	ND	CO	OR	33	
127,980	94,400	31,955	26,400	23,274	20,730	345	444,766

<sup>1/</sup> In accordance with USDA, ERS Ranking of States and Commodities by Cash Receipts. <sup>2/</sup> 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: Top Six States, Utah's Rank, and United States Total by Agricultural Category**

Top Six States						Utah's Rank	United States Total
First	Second	Third	Fourth	Fifth	Sixth		
<b>Fruits &amp; Vegetables</b>							
<b>Apple Utilized Production, All Commercial, 2001 (Million Pounds)</b>							
WA	NY	MI	CA	PA	VA	23	9,414.8
5,100.0	940.0	850.0	670.0	480.0	306.0	24.0	
<b>Apricot Utilized Production, 2001 (Tons)</b>							
CA	WA	UT				3	75,430.0
70,000	5,200	230				230	
<b>Peach Utilized Production, 2001 (Million Pounds)</b>							
CA <sup>1/</sup>	GA	SC	PA	NJ	WA	20	2,343.0
775.0	125.0	85.0	74.0	70.0	55.0	8.9	
<b>Pear Utilized Production, 2001 (Tons)</b>							
WA	CA	OR	NY	PA	MI	9	968,300.0
447,000	270,000	229,500	10,000	5,200	3,900	300	
<b>Sweet Cherry Utilized Production, 2001 (Tons)</b>							
WA	CA	OR	MI	MT	ID	8	219,440.0
106,000	51,100	34,000	23,000	1,670	1,390	650	
<b>Tart Cherry Utilized Production, 2001 (Million Pounds)</b>							
MI	WA	NY	WI	UT	PA	5	308.1
242.0	20.5	14.1	13.0	11.5	3.9	11.5	
<b>Onion Production, Summer Storage, 2001 (1,000 Cwt) <sup>2/</sup></b>							
CA <sup>2/</sup>	OR	WA	ID	NY	CO	8	46,742.0
11,844	9,970	8,800	4,992	4,224	4,140	956	
<b>Livestock, Mink, &amp; Poultry</b>							
<b>All Cattle &amp; Calves, January 1, 2002 (1,000 Head)</b>							
TX	KS	NE	CA	OK	MO	33	96,704.0
13,600	6,600	6,400	5,200	5,200	4,350	920	
<b>Beef Cows, January 1, 2002 (1,000 Head)</b>							
TX	MO	OK	NE	SD	KS	28	33,099.7
5,440	2,060	1,933	1,932	1,792	1,485	357	
<b>Breeding Hogs, December 1, 2001 (1,000 Head)</b>							
IA	NC	MN	IL	MO	NE	17	6,209.0
1,130	1,000	570	450	380	370	70	
<b>Honey Production, 2001 (1,000 Lbs)</b>							
CA	ND	FL	SD	MT	MN	28	185,926.0
27,625	26,880	22,000	15,275	13,872	10,935	874	
<b>Mink Pelt Production, 2001 (Pelts)</b>							
WI	UT	MN	OR	ID	WA	2	2,565,300.0
672,000	610,000	286,500	251,000	151,200	113,100	610,000	
<b>All Sheep, January 1, 2001 (1,000 Head)</b>							
TX	CA	WY	SD	CO	UT	6	6,685.0
1,130	800	480	400	370	365	365	
<b>Chickens, Layers Inventory, December 1, 2001 (1,000)</b>							
IA	OH	CA	PA	IN	GA	28	338,233.0
34,594	30,290	23,759	23,677	22,500	21,872	3,272	
<b>Milk Cow Inventory, January 1, 2002 (1,000 Head)</b>							
CA	WI	NY	PA	MN	ID	24	9,109.6
1,620	1,280	675	588	500	377	93	
<b>Trout Sold, 2001 (Value 000)</b>							
ID	NC	CA	PA	WA	CO	10	76,310.0
34,823	6,475	6,020	4,894	3,516	2,794	1,324	

<sup>1/</sup> freestone <sup>2/</sup> 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	
<b>Corn for Grain</b>						
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	
<b>Corn for Silage</b>						
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	
<b>Barley</b>						
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	
<b>Oats</b>						
Acres Harvested	1,000 Acres	82	1910	6	2001	1882
Yield	Bushels	77.0	1991	25.0	1882, 83	
Production	1,000 Bushels	3,338	1914	390	2001	
<b>All Wheat</b>						
Acres Harvested	1,000 Acres	444	1953	65	1880, 81	1879
Yield	Bushels	52.6	1999	15.4	1919	
Production	1,000 Bushels	9,750	1986	1,139	1882	
<b>Other Spring Wheat</b>						
Acres Harvested	1,000 Acres	160	1918	16	1972, 2001	1909
Yield	Bushels	65.0	1995	18.7	1919	
Production	1,000 Bushels	4,000	1918	704	1972	
<b>Winter Wheat</b>						
Acres Harvested	1,000 Acres	342	1953	120	1909	1909
Yield	Bushels	52.0	1999	12.7	1919	
Production	1,000 Bushels	8,100	1986	1,862	1924	
<b>All Hay</b>						
Acres Harvested	1,000 Acres	715	1997	402	1909	1909
Yield	Tons	3.92	1999	1.51	1934	
Production	1,000 Tons	2,778	1998	679	1934	
<b>Alfalfa Hay</b>						
Acres Harvested	1,000 Acres	562	1930	359	1934	1919
Yield	Tons	4.40	1993, 98, 99	1.67	1934	
Production	1,000 Tons	2,398	1998	600	1934	
<b>All Other Hay</b>						
Acres Harvested	1,000 Acres	180	1947	92	1934	1924
Yield	Tons	2.30	1998, 99	0.86	1934	
Production	1,000 Tons	380	1998	79	1934	
<b>Dry Edible Beans</b>						
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
<b>Fall Potatoes</b>						
Acres Harvested	1,000 Acres	19.6	1943	1.3	2001	1882
Yield	Cwt	290	1997, 99, 2000	45	1886	
Production	1,000 Cwt	2,153	1946	345	2001	
<b>Summer Storage Onions</b>						
Acres Harvested	Acres	2,700	1999	550	1954, 66	1939
Yield	Cwt	525	1992	200	1940	
Production	1,000 Cwt	1,256	1999	150	1952	
<b>Apples</b>						
Utilized Production	Million Lbs	63.0	1987	2.7	1889	1889
<b>Apricots</b>						
Utilized Production	Tons	10,000	1957	0	1972, 95, 99	1929
<b>Peaches (Freestone)</b>						
Utilized Production	Million Lbs	44.2	1922	1.5	1972	1899
<b>Pears</b>						
Utilized Production	Tons	8,750	1954	200	1972	1909
<b>Sweet Cherries</b>						
Utilized Production	Tons	7,700	1968	0	1972	1938
<b>Tart Cherries</b>						
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	
<b>Cattle &amp; Calves</b>						
Inventory Jan. 1	Thou Hd	950	1983	95	1867	1867
Calf Crop	Thou Hd	400	2000, 01	129	1935	1920
Beef Cows Jan. 1 <sup>1/</sup>	Thou Hd	374	1983	107	1939	1920
Milk Cows Jan. 1 <sup>1/</sup>	Thou Hd	126	1945	14	1867	1867
Milk Production	Mil Lbs	1,687	2000	412	1924	1924
Cattle on Feed Jan. 1	Thou Hd	81	1963, 66	25	2002	1959
<b>Hogs and Pigs</b>						
Inventory Dec. 1 <sup>2/</sup>	Thou Hd	610	2001	4	1867, 69	1867
<b>Sheep and Lambs</b>						
Breeding Sheep Inventory Jan. 1	Thou Hd	2,775	1931	167	1867	1867
Lamb Crop	Thou Hd	1,736	1930	305	2001	1924
Market Sheep & Lambs Inv Jan.1	Thou Hd	70	1995	35	1994	1994
<b>Chickens</b>						
Hens & Pullets of Laying Age Dec. 1	Thou Hd	3,272	2001	1,166	1965	1925
Egg Production Total for Year	Mil Eggs	853	2001	142	1924	1924
<b>Honey</b>						
Production	Thou Lbs	4,368	1963	315	1997	1913
<b>Mink</b>						
Pelts Produced	Thou Pelts	780	1989	283	1973	1969

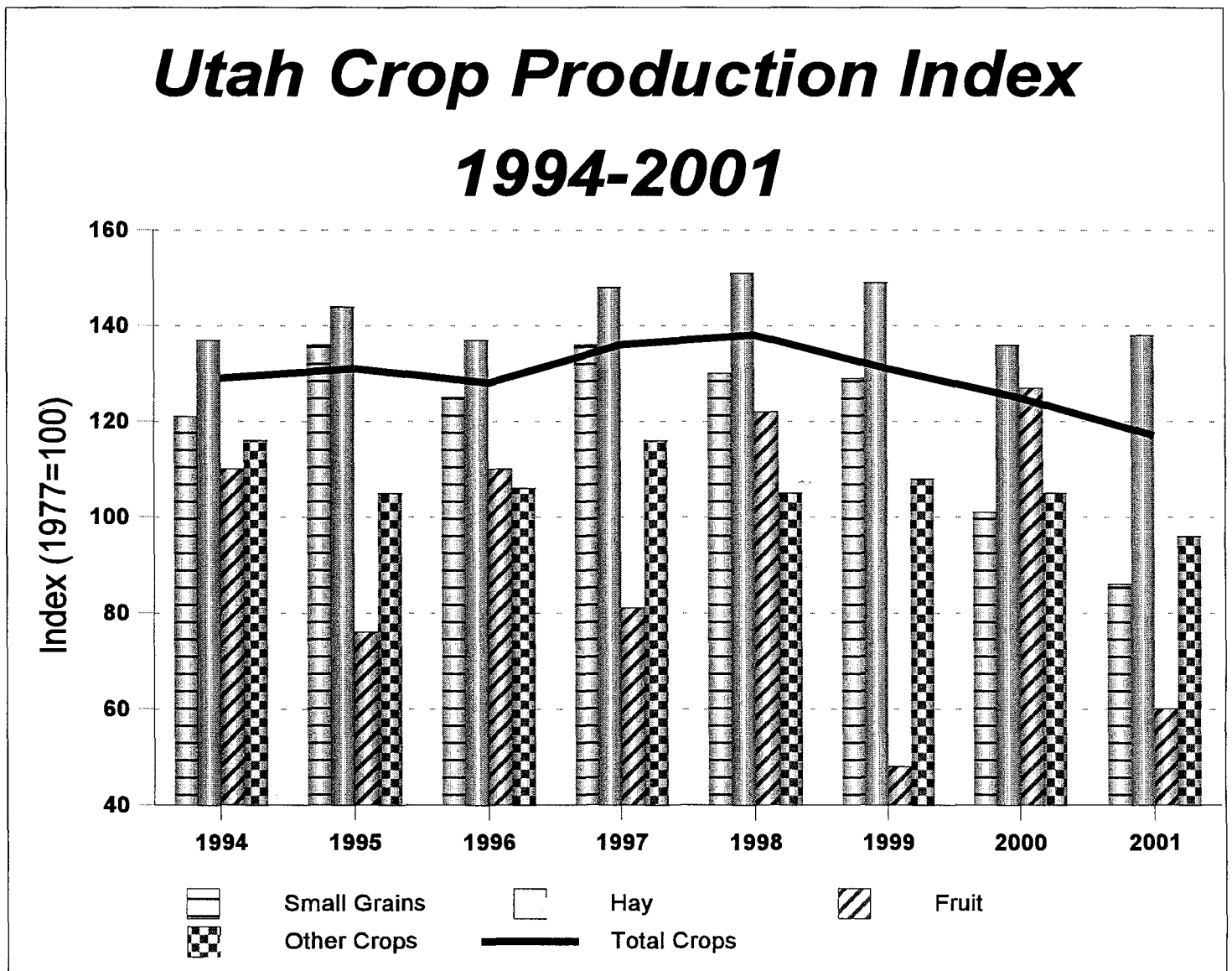
<sup>1/</sup> Cows and heifers two years old and over prior to 1970, cows that have calved starting in 1970. <sup>2/</sup> January 1 estimates discontinued in 1969. December 1 estimates started 1969.



## Crop Production Index (1977=100):Crops, by Commodity Grouping Utah, 1994-2001

Year	Small Grain	Hay	Fruit <sup>1</sup>	Other Crops	Total Crops
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1994	121	137	110	116	129
1995	136	144	76	105	131
1996	125	137	110	106	128
1997	136	148	81	116	136
1998	130	151	122	105	138
1999	129	149	48	108	131
2000	101	136	127	105	125
2001	86	138	60	96	117

<sup>1</sup> Fruit production index is derived from total production.



# Farms and Land in Farms

**UTAH:** The number of farms in Utah in 2001 was estimated at 15,000, down 500 from last year. Land in farms, estimated at 11.6 million acres, was unchanged from the previous year. The average size of farm, at 773 acres, increased 25 acres from 2000.

**UNITED STATES:** The number of farms and ranches in the United States in 2001 is estimated at 2.16 million,

down 0.7 percent from 2000. The decline in farms and ranches occurred primarily in agricultural operations with sales in the \$10,000-\$99,999 economic class. This is the second largest decline in farms and ranches since the 1.4 percent drop in 1991. Total land in farms, at 941.2 million acres, declined 0.2 percent or 1.9 million acres from last year. The average size of farm increased 2 acres from 434 acres in 2000 to 436 acres in 2001.

**Farm Numbers and Acreage: Utah and United States, 1994-2001 <sup>1</sup>**

Year	Utah			United States		
	Farms <sup>2</sup>	Land in Farms		Farms <sup>2</sup>	Land in Farms	
		Average Size	Total		Average Size	Total
	<i>Number</i>	<i>Acres</i>	<i>1,000 Acres</i>	<i>Number</i>	<i>Acres</i>	<i>1,000 Acres</i>
1994	14,500	772	11,200	2,197,690	440	965,935
1995	15,000	760	11,400	2,196,400	438	962,515
1996	15,000	760	11,400	2,190,500	438	958,675
1997	15,000	773	11,600	2,190,510	436	956,010
1998	15,000	773	11,600	2,191,360	435	953,500
1999	15,500	748	11,600	2,192,070	432	947,440
2000	15,500	748	11,600	2,172,080	434	943,090
2001	15,000	773	11,600	2,157,780	436	941,210

<sup>1</sup> A farm is defined as a place with annual sales of agricultural products of \$1,000 or more.

<sup>2</sup> 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.

**Number of Farms and Land in Farms: Economic Sales Class, Utah, 1999-2001**

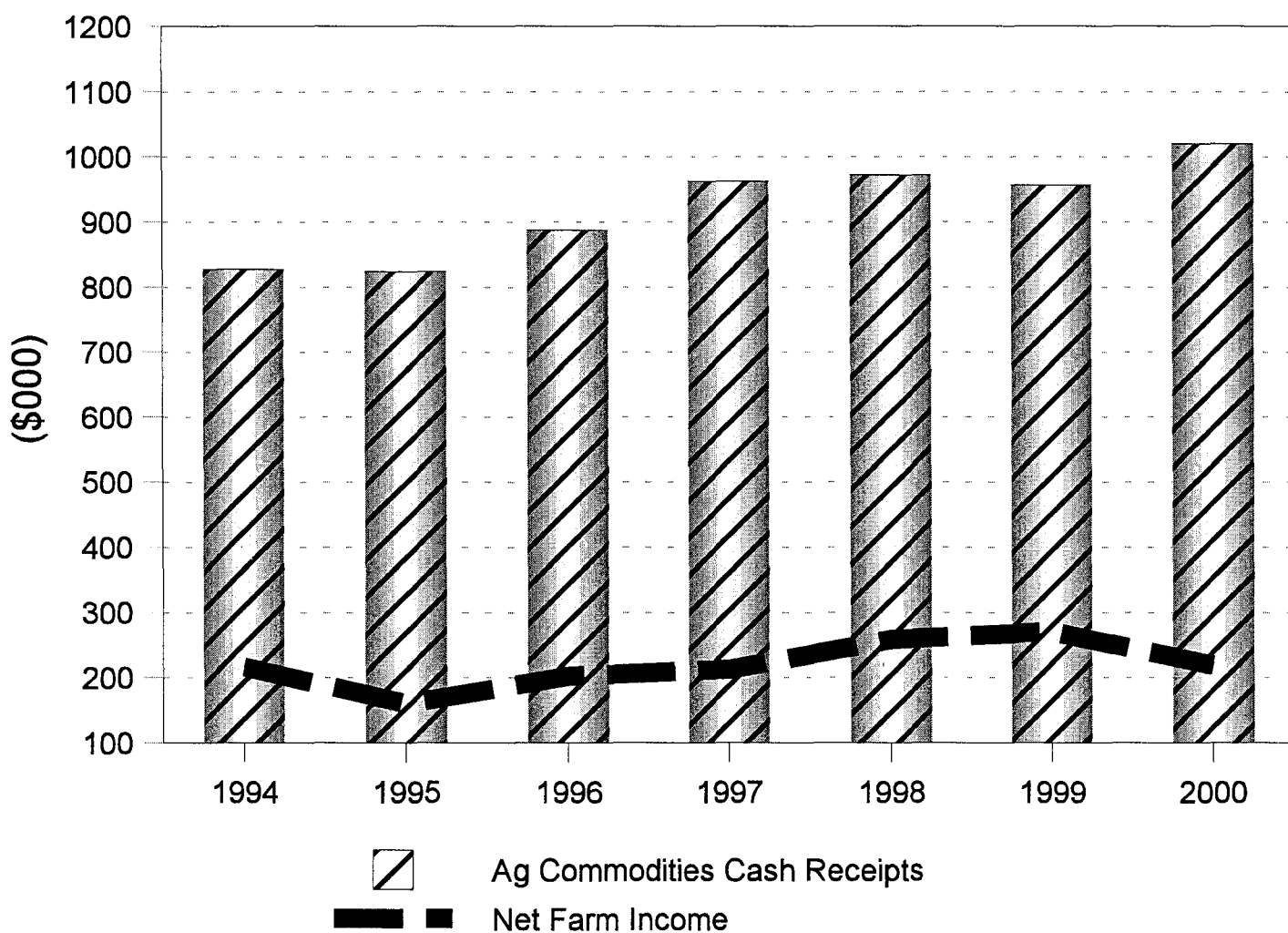
Year	Number of Farms				Land in Farms			
	Economic Sales Class				Economic Sales Class			
	\$1000-\$9,999	\$10,000-\$99,999	\$100,000 & Over	Total	\$1,000-\$9,999	\$10,000-\$99,999	\$100,000 & Over	Total
<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	<i>1,000 acres</i>	
1999	9,000	5,000	1,500	15,500	1,100	2,800	7,700	11,600
2000	9,000	5,000	1,500	15,500	1,100	2,800	7,700	11,600
2001	8,500	5,000	1,500	15,000	1,100	2,500	8,000	11,600

# Farm Income

Marketing of Utah crops and livestock in 2001 produced cash receipts totaling \$1,116.3 million, according to preliminary data by USDA'S Economic Research Service. This was 9.5 percent above 2000. The 2001 cash receipts from livestock, at \$853.3 million, were 11

percent above 2000. Cash receipts from crops, at \$263.1 million, were up 6.3 percent from 2000. Utah's net farm income for 2000 was \$219.1 million compared with \$270.0 million in 1999 and \$258.3 million in 1998.

## Ag Commodities Cash Receipts & Net Farm Income Utah, 1994-2000



## Cash Receipts: by Commodity, Utah, 1998-2001 <sup>1 2</sup>

Commodity	1998		1999		2000		2001 <sup>3</sup>	
	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total
	<i>1,000</i>	<i>Percent</i>	<i>1,000</i>	<i>Percent</i>	<i>1,000</i>	<i>Percent</i>	<i>1,000</i>	<i>Percent</i>
<b>All Commodities</b>								
All Commodities	971,994	100.0	955,840	100.0	1,019,622	100.0	1,116,327	100.0
<b>Livestock &amp; Products</b>								
Livestock & products	713,897	73.4	712,691	74.6	772,035	75.7	853,261	76.4
Meat Animals	373,166	38.4	386,722	40.5	470,261	46.1	495,991	44.4
Cattle & Calves	304,277	31.3	314,162	32.9	350,945	34.4	374,459	33.5
Hogs	49,494	5.1	54,136	5.7	98,042	9.6	106,338	9.5
Sheep & Lambs	19,395	2.0	18,424	1.9	21,274	2.1	15,194	1.4
Dairy Products	231,154	23.8	222,122	23.2	186,032	18.2	236,670	21.2
Milk, Retail								
Milk, Wholesale	231,154	23.8	222,122	23.2	186,032	18.2	236,670	21.2
Poultry/Eggs	70,645	7.3	73,856	7.7	81,383	8.0	88,041	7.9
Farm chickens	123		147		87		5	
Chicken Eggs	20,713	2.1	19,234	2.0	25,751	2.5	31,277	2.8
Other Poultry	10,249	1.1	7,549	0.8	6,054	0.6	5,924	0.5
Miscellaneous Livestock	38,932	4.0	29,991	3.1	34,359	3.4	32,559	2.9
Honey	1,131	0.1	796	0.1	590	0.1	568	0.1
Wool	963	0.1	963	0.1	673	0.1	812	0.1
Trout	1,871	0.2	1,697	0.2	1,396	0.1	1,324	0.1
Other Livestock	22,967	2.4	26,535	2.8	31,700	3.1	29,855	2.7
Mink pelts	22,177	2.3	16,740	1.8	21,905	2.1	20,060	1.8
All other livestock	790	0.1	9,795	1.0	9,795	1.0	9,795	0.9
<b>Crops</b>								
Crops	258,097	26.6	243,149	25.4	247,587	24.3	263,066	23.6
Food Grains	24,987	2.6	21,797	2.3	18,976	1.9	18,515	1.7
Wheat	24,987	2.6	21,797	2.3	18,976	1.9	18,515	1.7
Feed Crops	125,727	12.9	117,568	12.3	121,064	11.9	141,034	12.6
Barley	13,208	1.4	11,771	1.2	9,390	0.9	9,288	0.8
Corn	6,390	0.7	5,567	0.6	4,992	0.5	4,185	0.4
Hay	105,521	10.9	99,704	10.4	106,074	10.4	127,080	11.4
Oats	609	0.1	526	0.1	608	0.1	481	
Oil Crops	1,753	0.2	1,760	0.2	1,582	0.2	1,088	0.1
Vegetables	24,522	2.5	20,170	2.1	21,411	2.1	22,497	2.0
Beans, dry	692	0.1	798	0.1	493		295	
Potatoes, fall	3,437	0.4	2,525	0.3	2,072	0.2	1,473	0.1
Onions, storage	10,193	1.0	6,648	0.7	8,646	0.8	10,528	0.9
Miscellaneous Vegetables	10,200	1.0	10,200	1.1	10,200	1.0	10,200	0.9
Fruits/Nuts	14,222	1.5	9,353	1.0	16,838	1.7	10,052	0.9
Apples	4,657	0.5	2,195	0.2	4,101	0.4	4,404	0.4
Fresh	4,582	0.5	2,145	0.2	3,816	0.4	4,258	0.4
Processing	75		50		285		146	
Apricots	131				159		147	
Cherries	6,174	0.6	3,846	0.4	8,370	0.8	3,021	0.3
Sweet	1,854	0.2	1,149	0.1	2,430	0.2	514	
Tart	4,320	0.4	2,697	0.3	5,940	0.6	2,507	0.2
Peaches	1,890	0.2	2,034	0.2	3,000	0.3	1,936	0.2
Pears, Bartlett	267		135		245		175	
Other berries	693	0.1	693	0.1	513	0.1	103	
Miscellaneous Fruits/Nuts	410		450		450		266	
All Other Crops	66,886	6.9	72,501	7.6	67,715	6.6	69,880	6.3
Other Seeds	2,310	0.2	2,910	0.3	2,610	0.3	2,910	0.3
Other Field Crops	714	0.1	714	0.1	714	0.1	714	0.1
Christmas trees	440		440		440		440	
Greenhouse/Nursery	58,170	6.0	63,648	6.7	59,913	5.9	62,496	5.6
Floriculture	32,228	3.3	38,708	4.0	34,973	3.4	35,556	3.2
Other Greenhouses	25,502	2.6	24,500	2.6	24,500	2.4	26,500	2.4

<sup>1</sup> Source: "Economic indicators of the Farm Sector: State Financial Summary." Economic Research Service, USDA. Revised July 12, 2002.

<sup>2</sup> 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.

<sup>3</sup> Preliminary.

Utah agricultural cash receipts for 2001 were \$1,116.3 million, up \$96,705 from 2000 and \$160,487 above 1999.

Cash receipts from livestock and livestock products accounted for \$853.3 million, up \$81.2 million from the previous year. Cash receipts from crops came to \$263.1 million in 2000, an increase of \$15.5 million from 2000.

The commodity accounting for the largest portion of the state's agricultural cash receipts in 2001 was cattle at \$374.5 million dollars and 33.5 percent of the state's

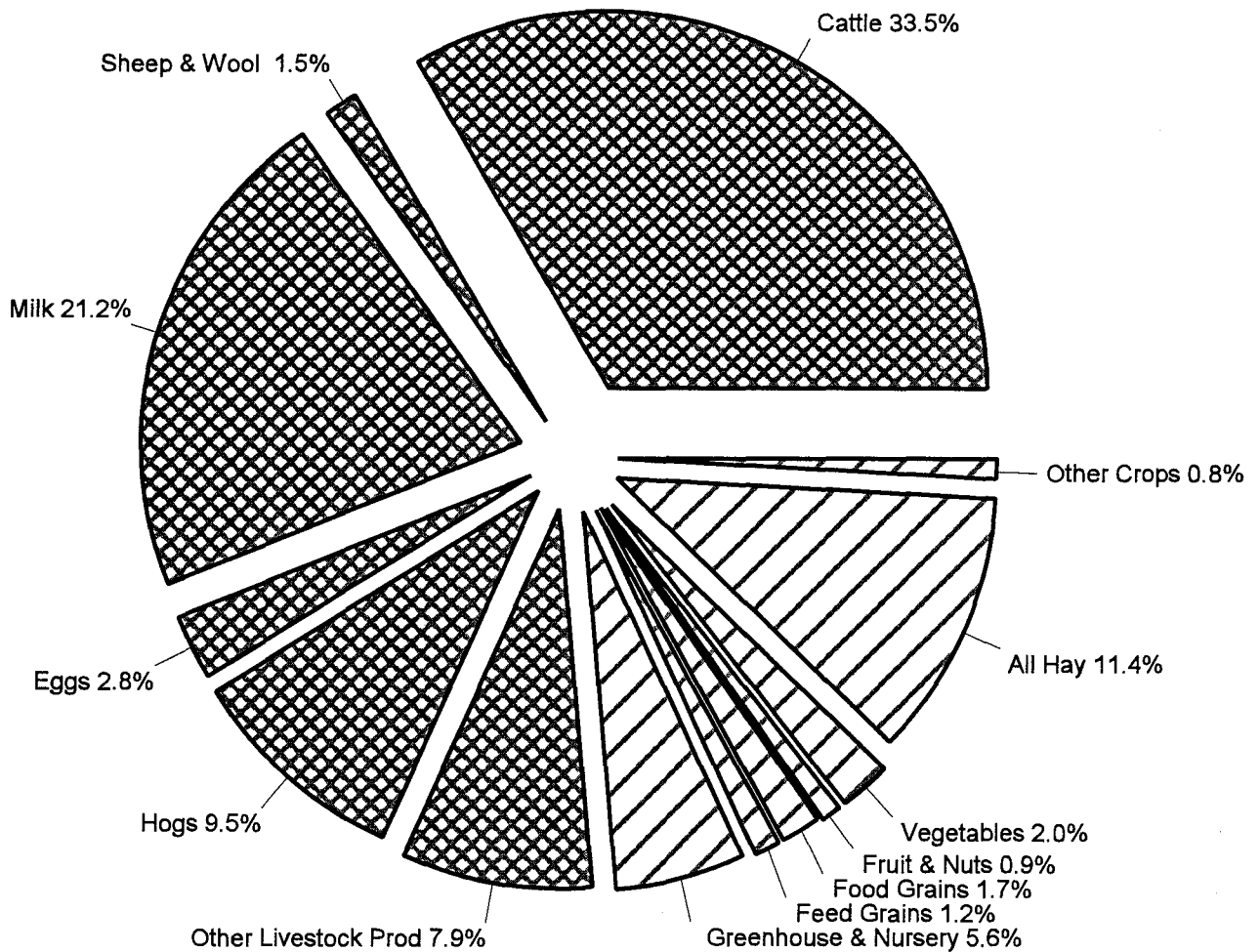
total. This was \$23.5 million more in cash receipts than in 2000. The commodity accounting for the second largest portion of the state's cash receipts was milk at \$236.7 million dollars and 21.2 percent of the state's total. Hay sales was the commodity responsible for the state's third highest cash receipt total at \$127.1 million, 11.4 percent of the total. Hogs was 4th with \$106.3, an increase of \$8.3 million from 2000.

Net farm income of Utah farmers in 2000 was \$219.1 million compared with \$270.0 million in 1999 and \$258.3 million in 1998.

## Utah Cash Receipts by Commodities

2001

Livestock & Livestock Products = 76.4%  
Crops = 23.6%



**Net Farm Income: Value added to the U.S. economy by the agricultural sector via the production of goods and services, Utah, 1994-2000 <sup>1/2/</sup>**

Item	1994	1995	1996	1997	1998	1999	2000
<b>Final Agricultural Sector Output</b> .....	976,326	959,405	1,048,215	1,133,497	1,159,867	1,179,876	1,190,019
Final crop output .....	240,982	246,508	243,536	272,047	262,612	245,585	232,906
Food Grains .....	25,248	32,477	37,343	30,213	25,060	21,980	19,139
Feed Crops .....	112,784	110,667	108,425	136,794	125,743	117,615	113,833
Oil crops .....	1,487	1,583	1,224	1,528	1,753	1,760	1,569
Fruits and tree nuts .....	12,372	9,028	15,166	13,200	14,222	9,353	17,130
Vegetables .....	29,961	23,089	22,267	24,085	24,210	20,368	20,662
All other crops .....	58,416	62,569	60,379	63,971	66,894	73,080	67,671
Home consumption .....	901	932	901	901	901	931	901
Value of inventory adjustment <sup>3/</sup> .....	(187)	6,163	(2,169)	1,355	3,829	498	(7,999)
Final animal output .....	617,343	589,958	647,512	706,046	721,061	742,205	780,918
Meat animals .....	303,688	290,893	286,081	375,802	373,166	386,722	468,424
Dairy products .....	181,930	181,837	219,476	195,825	231,154	222,122	186,032
Poultry and eggs .....	66,230	69,126	72,630	73,786	70,645	73,856	81,383
Miscellaneous livestock .....	37,491	33,609	45,498	47,425	47,932	29,991	34,359
Home consumption .....	7,260	6,673	6,157	7,033	6,611	6,917	7,404
Value of inventory adjustment <sup>3/</sup> .....	20,744	7,820	17,670	6,175	(8,447)	22,597	3,316
Services and forestry .....	118,001	122,939	157,167	155,404	176,194	192,086	176,194
Machine hire and custom work .....	15,221	13,934	12,665	13,723	18,323	11,186	10,556
Forest products sold .....	94	95	94	95	97	97	97
Other farm income .....	21,964	28,873	34,021	27,648	45,393	60,940	43,698
Gross imputed rental value of farm dwelling ..	80,722	80,037	110,387	113,938	112,381	119,863	121,843
<b>Intermediate Consumption Outlays</b> .....	493,145	505,901	552,307	604,764	585,147	586,528	637,566
Farm origin .....	184,699	198,280	223,872	255,423	236,277	248,560	264,167
Feed purchased .....	109,995	130,648	149,020	170,975	155,985	151,572	169,397
Livestock and poultry purchased .....	59,396	52,197	56,976	63,858	60,815	75,563	74,180
Seed purchased .....	15,308	15,435	17,876	20,590	19,477	21,425	20,590
Manufactured inputs .....	79,712	82,552	91,326	88,808	85,773	85,492	97,538
Fertilizers and lime .....	20,538	21,387	21,077	23,436	23,038	22,681	20,423
Pesticides .....	8,740	8,964	9,535	10,330	10,822	10,207	10,576
Petroleum fuel and oils .....	31,156	31,333	36,637	38,459	34,599	35,066	49,637
Electricity .....	19,278	20,868	24,077	16,583	17,314	17,538	16,902
Other intermediate expenses .....	228,734	225,069	237,109	260,533	263,097	252,476	275,861
Repair and maintenance of capital items .....	68,296	69,579	76,523	72,857	76,462	80,086	85,415
Machine hire and custom work .....	13,010	15,896	10,929	12,074	14,196	13,918	14,552
Marketing, storage, and transportation .....	25,041	24,408	23,351	35,475	32,462	29,767	34,288
Contract labor .....	3,475	5,408	6,811	7,330	6,633	6,712	8,654
Miscellaneous expenses .....	118,912	109,778	119,495	132,797	133,344	121,993	132,952
<b>Net Government Transactions</b> .....	1,807	(6,664)	(11,399)	(13,643)	(9,201)	(1,757)	1,741
+Direct Government payments .....	32,055	25,045	21,478	20,094	25,149	30,521	36,181
- Motor vehicle registration and licensing fee ..	4,975	4,278	4,642	4,863	5,582	4,673	6,201
- Property taxes .....	25,273	27,431	28,235	28,874	28,768	27,605	28,239
<b>Gross Value Added</b> .....	484,988	446,840	484,509	515,091	565,519	591,591	554,194
Capital consumption .....	124,558	131,268	134,727	141,246	144,290	150,740	154,100
<b>Net Value Added</b> .....	360,430	315,572	349,782	373,845	421,229	440,851	400,094
Factor payments .....	144,284	155,469	147,756	161,890	162,960	170,856	180,998
Employee compensation (total hired labor) ..	85,618	88,383	85,958	94,057	95,114	97,626	106,513
Net rent received by non operator landlord ..	6,605	10,774	10,442	15,204	14,358	19,036	19,542
Real estate and non real estate interest .....	52,061	56,312	51,356	52,629	53,488	54,194	54,943
<b>Net Farm Income <sup>4/</sup></b> .....	216,146	160,103	202,026	211,955	258,269	269,995	219,096

<sup>1/</sup> Source: Economic Research Service, USDA. <sup>2/</sup> 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. <sup>3/</sup> 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. <sup>4/</sup> 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, 1992-2000 <sup>1/ 2/</sup>**

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Farms (numbers)</b>									
Farms .....	13,200	14,500	14,500	15,000	15,000	15,000	15,000	15,500	15,500
<b>Assets (\$1,000)</b>									
Total Farm Assets .....	6,038,148	7,941,706	8,164,158	8,638,813	9,210,171	9,635,345	10,119,590	10,653,447	11,436,646
Real Estate .....	4,841,193	6,706,488	6,956,268	7,250,194	7,776,169	8,045,344	8,523,877	8,972,502	9,720,211
Livestock & Poultry <sup>3/</sup> .....	637,914	626,929	626,445	510,964	553,353	625,347	586,854	684,278	745,250
Machinery & motor vehicles <sup>4/</sup> .....	430,315	461,022	473,303	496,942	499,250	553,625	561,582	584,233	588,114
Crops <sup>5/</sup> .....	90,334	117,657	114,672	101,191	120,993	150,944	147,722	125,968	127,286
Purchased Inputs .....	27,209	29,321	36,362	22,694	24,478	27,500	28,263	22,591	27,473
Financial .....	11,183	289	(40,892)	258,828	235,928	232,585	271,292	263,875	228,130
<b>Claims (\$1,000)</b>									
Farm Debt <sup>6/</sup> .....	653,698	650,400	668,573	688,266	709,522	766,897	786,619	787,132	884,718
Real estate .....	352,883	340,390	339,394	348,133	350,892	372,674	375,675	376,066	456,651
Farm Credit System .....	110,940	102,769	92,910	98,112	98,185	107,940	106,827	102,518	185,665
Farm Service Agency <sup>7/</sup> .....	50,318	47,492	45,366	42,569	39,730	37,849	37,182	35,073	33,318
Commercial banks .....	48,362	42,121	43,648	46,160	48,792	52,908	56,951	62,466	66,735
Life insurance companies .....	8,650	8,431	11,041	10,948	9,928	15,802	18,107	19,402	17,446
Individuals and others .....	134,613	139,576	146,428	150,343	154,258	158,174	156,607	156,607	153,487
CCC storage & drying loans .....	0	0	0	0	0	0	0	0	0
Non-Real Estate .....	300,815	310,010	329,179	340,133	358,630	394,223	410,944	411,066	428,067
Farm Credit System .....	56,171	58,471	55,570	56,527	69,904	81,859	87,485	84,879	87,091
Farm Service Agency <sup>7/</sup> .....	35,764	35,966	36,867	35,039	36,513	38,728	41,155	44,554	43,104
Commercial banks .....	148,233	150,433	167,111	174,443	172,247	187,382	192,456	188,641	200,230
Individuals and others .....	60,647	65,140	69,632	74,124	79,965	86,254	89,848	92,992	97,642
<b>Equity (\$1,000)</b>									
Equity .....	5,385,450	7,291,306	7,495,585	7,950,547	8,500,649	8,868,448	9,332,971	9,866,315	10,551,746
<b>Ratios (percent)</b>									
Debt/Equity .....	12.1	8.9	8.9	8.7	8.3	8.6	8.4	8.0	8.4
Debt/Assets .....	10.8	8.2	8.2	8.0	7.7	8.0	7.8	7.4	7.7

<sup>1/</sup> Source: Economic Research Service/USDA.

<sup>2/</sup> Data are for farms with sales of \$1,000 or more annually.

<sup>3/</sup> Excludes horses, mules, and broilers.

<sup>4/</sup> Includes only farm share value for trucks and autos.

<sup>5/</sup> All non-CCC crops held on farms plus the value above loan rate for crops held under CCC.

<sup>6/</sup> Excludes debt for non-farm purposes.

<sup>7/</sup> Farmers Home Administration prior to 1994.

# Field Crops

## PRINCIPAL CROPS

Utah farmers planted 1.1 million acres to principal crops in 2001, virtually the same as 2000. Harvested acres were 988,000 acres, 3 percent less than 2000. Preliminary total value of principal crops was \$292.4 million compared with \$266.3 million in 2000.

## SMALL GRAINS

**2001 all wheat** production, at 6.0 million bushels, was down 12 percent from 2000. Average price received by producers was \$3.20 per bushel, 5 cents lower than 2000 but 55 cents higher than 1999. The value of the crop, at \$19.4 million, was 14 percent below 2000 and 19 percent below 1999. Average yield of 42.8 bushels per acre was 1.5 bushels above 2000's yield. Acres harvested was 141,000, down 25,000 acres from 2000. **Winter wheat** production of 5.3 million bushels was down 10 percent from the 2000 level. The average price of \$3.20 per bushel was 5 cents below 2000. Value of production fell 11 percent to \$16.8 million. Winter wheat yield, at 42 bushels per acre, was 2 bushels above 2000. Harvested acreage of 125,000 acres was 20,000 acres less than 2000. **Other spring wheat** production of 784,000 bushels was 25 percent below the previous year. The average price of \$3.35 per bushel was down 20 cents from 2000. Value of production, at \$2.6 million, was down 30 percent from the 2000 level. Yield of 49 bushels per acre was 1 bushel below last year. Harvested acreage of 16,000 acres was down 24 percent from 2000.

**Barley** production, at 4.4 million bushels, was 1.0 million bushels below 2000. The average price of \$2.05 per bushel was up 5 cents. The value of the crop, at \$9.1 million, was down 17 percent. Yield of 68.0 bushels per acre was 2 bushels below last year. Harvested acres, at 65,000, was 17 percent below 2000.

**Oat** production, at 390,000 bushels, was 20 percent below the previous year. Average price of \$2.00 per bushel was 35 cents above 2000. The value of production was down 3.6 percent to \$780,000. Oat yield was 65 bushels per acre, down 5 bushels from 2000. Harvested acreage for grain was 6,000 acres, 1,000 acres less than 2000.

## CORN

**2001 corn for grain** production at 2.1 million bushels was down 18 percent from the 2000 level. Average price was \$2.65 per bushel, up 4 cents from the previous year. Total value of the crop, at \$5.6 million,

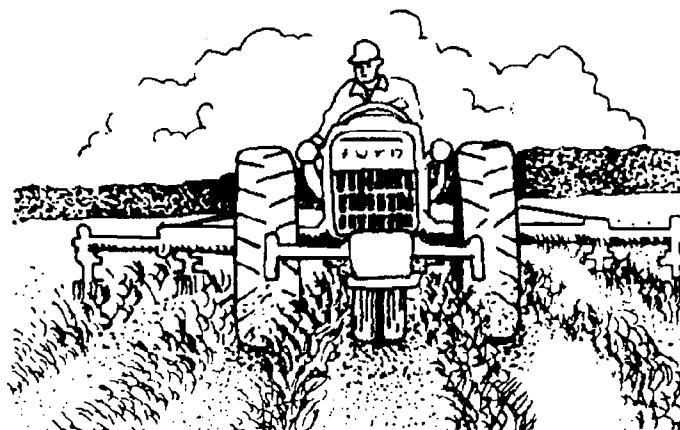
was 17 percent below 2000. Corn for grain yield, at 142 bushels, was up 2 bushels from the 2000 level. Harvested acreage for grain was 15,000, down 3,000 acres from 2000. Total **corn silage** production was 924,000 tons compared with 945,000 tons in 2000. Yield of 21 tons per acre was the same as 2000. Harvested acreage of 44,000 was 2.2 percent below the previous year. The value of the crop was \$30.5 million compared with \$25.5 million the previous year. Silage price of \$33 per ton was \$6.00 more than 2000.

## HAY

**2001 alfalfa hay** production of 2.2 million tons was the same as the 2000 level. Yield of 4.00 tons per acre was the same as 2000. Harvested acres, at 550,000 acres, was the same as 2000. **All other hay** yielded 2.10 tons per acre for a production of 336,000 tons, up 12 percent from 2000. Harvested acres of 160,000 acres compared with 150,000 acres harvested in 2000. The 2001 **all hay** crop was valued at \$235.0 million, up 23 percent from 2000. The price per ton, at \$96.50, was up \$18.00 from the previous year.

## DRY EDIBLE BEANS

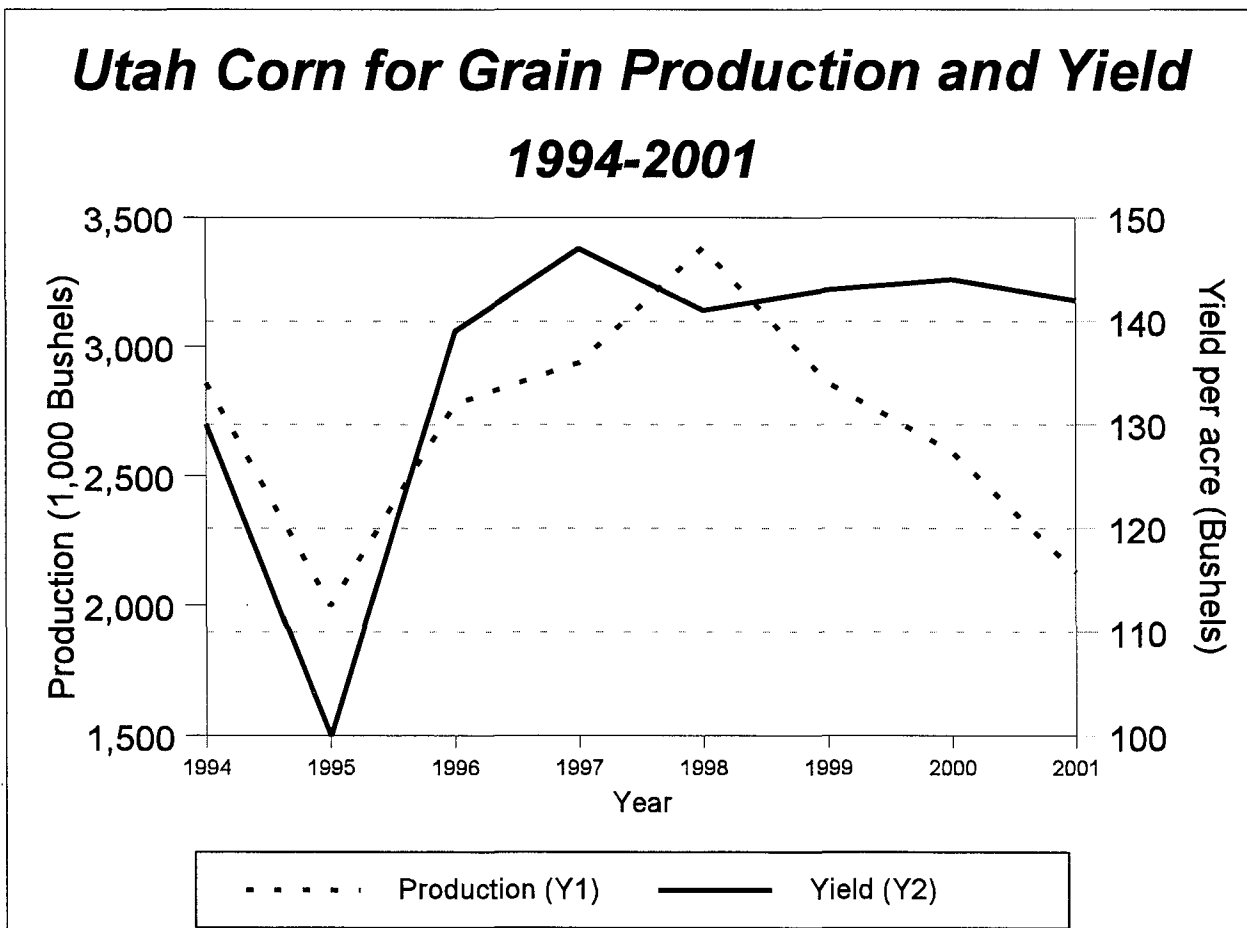
**2001 dry edible bean** production for 2001, at 1.7 million pounds, was 70 percent above the 2000 level. Growers harvested 5,700 acres compared with 3,000 acres during 2000. Yields averaged 300 pounds per acre. Value of production at \$372,000 compares with \$206,000 in 2000 and \$938,000 in 1999. Price per hundredweight (cwt) was \$21.90, up \$1.30 from 2000.



## Corn Planted and Harvested for Silage and Grain: Acreage, Yield, Production, and Value, Utah, 1994-2001

Year	Planted All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
<b>Silage</b>						
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Tons</i>	<i>1,000 Tons</i>	<i>Dollars per Ton <sup>1</sup></i>	<i>1,000 Dollars</i>
1994	67	43	22.0	946	26.00	24,596
1995	66	45	20.0	900	25.00	22,500
1996	62	40	21.0	840	28.00	23,520
1997	62	41	23.0	943	28.00	26,404
1998	62	37	21.0	777	26.00	20,202
1999	61	40	21.0	840	25.00	21,000
2000	64	45	21.0	945	27.00	25,515
2001	60	44	21.0	924	33.00	30,492
<b>Grain</b>						
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>Dollars per Bushel</i>	<i>1,000 Dollars</i>
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	2.45	8,291
1999	61	20	143.0	2,860	2.36	6,750
2000	64	18	144.0	2,592	2.61	6,765
2001	60	15	142.0	2,130	2.65	5,645

<sup>1</sup> Price or value per ton in silo or pit.



## Small Grains: Acreage, Yield, Production, and Value, Utah, 1994-2001

Crop & Year	Acres		Yield per acre	Production	Price per Bushel	Value of Production
	Planted <sup>1</sup>	Harvested				
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Bushels</i>	<i>1,000 Bushels</i>	<i>Dollars per Bushel</i>	<i>1,000 Dollars</i>
<b>Winter Wheat</b>						
1994	170	150	40.0	6,000	3.66	21,960
1995	150	145	48.0	6,960	4.75	33,060
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	2.95	22,125
1999	150	145	52.0	7,540	2.60	19,604
2000	150	145	40.0	5,800	3.25	18,850
2001	140	125	42.0	5,250	3.20	16,800
<b>Other Spring Wheat</b>						
1994	24	22	46.0	1,012	3.60	3,643
1995	27	25	65.0	1,625	4.70	7,638
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	2.70	3,602
1999	26	25	56.0	1,400	3.10	4,340
2000	23	21	50.0	1,050	3.55	3,728
2001	20	16	49.0	784	3.35	2,626
<b>All Wheat</b>						
1994	194	172	40.8	7,012	3.65	25,603
1995	177	170	50.5	8,585	4.74	40,698
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	2.94	25,727
1999	176	170	52.6	8,940	2.65	23,944
2000	173	166	41.3	6,850	3.25	22,578
2001	160	141	42.8	6,034	3.20	19,426
<b>Barley</b>						
1994	115	107	75.0	8,025	2.32	18,618
1995	100	93	88.0	8,184	3.08	25,207
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	1.86	13,122
1999	90	83	82.0	6,806	1.89	12,863
2000	95	78	70.0	5,460	2.00	10,920
2001	85	65	68.0	4,420	2.05	9,061
<b>Oats</b>						
1994	40	8	72.0	576	1.65	950
1995	50	9	68.0	612	2.05	1,255
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	1.45	914
1999	45	9	75.0	675	1.50	1,013
2000	50	7	70.0	490	1.65	809
2001	60	6	65.0	390	2.00	780

<sup>1</sup> Winter wheat was planted the previous fall and some barley may have been planted the previous fall.

## Field Crops: Acreage, Yield, Production, and Value, Utah, 1994-2002

Crop & Year	Acres		Yield per Acre	Production	Price per cwt	Value of Production
	Planted	Harvested				
<b>Dry Beans</b> <sup>1</sup>						
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Pounds</i>	<i>1,000 Cwt</i>	<i>Dollars per Cwt</i>	<i>1,000 Dollars</i>
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	17.50	525
1999	6.7	6.6	800	53	17.70	938
2000	5.4	3.0	330	10	20.60	206
2001	6.1	5.7	300	17	21.90	372
<b>Potatoes</b>						
	<i>1,000 Acres</i>	<i>1,000 Acres</i>	<i>Cwt</i>	<i>1,000 Cwt</i>	<i>Dollars per Cwt</i>	<i>1,000 Dollars</i>
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	4.85	3,531
1999	2.0	2.0	290	580	5.15	2,987
2000	1.5	1.5	290	435	5.10	2,219
2001	1.3	1.3	265	345	5.10	1,760

<sup>1</sup> Excludes beans grown for garden seed.

## Potatoes: Production, Farm Use, Sales, and Value, Utah, 1994-2001

Year	Production	Total Used for Seed <sup>1</sup>	Farm Disposition			Price per Cwt	Value of	
			Where Grown		Sold		Production	Sales
			Seed, Feed, Home	Shrink and Loss				
	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>1,000 Cwt</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>
1994	1,590	130	5	185	1,400	5.80	9,222	8,120
1995	1,224	103	2	125	1,097	5.10	6,242	5,595
1996	1,176	83	1	108	1,067	4.90	5,762	5,228
1997	957	68	1	68	888	4.35	4,163	3,863
1998	728	48		73	655	4.85	3,531	3,177
1999	580	39	6	41	533	5.15	2,987	2,745
2000	435	29	3	108	324	5.10	2,219	1,652
2001 <sup>2</sup>	345	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	5.10	1,760	( <sup>3</sup> )

<sup>1</sup> Includes seed purchased and seed used on farms where grown.

<sup>2</sup> Preliminary.

<sup>3</sup> Available in the "Potatoes 2002 Summary", released in September.

## Hay: Acreage, Yield, Production, and Value, Utah, 1994-2001

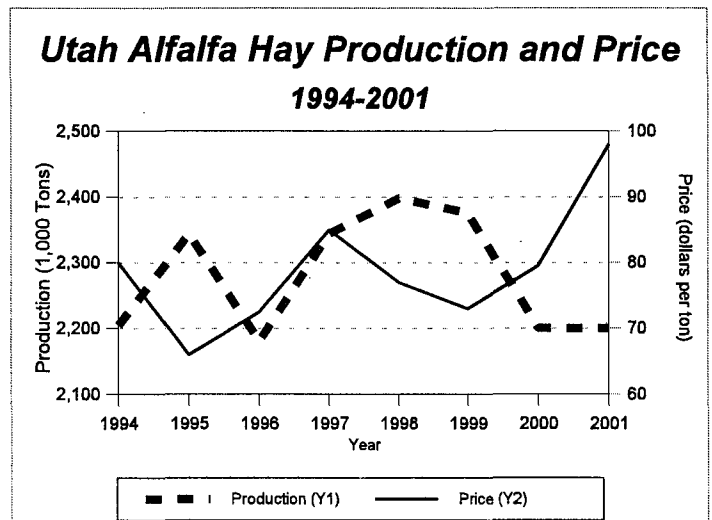
Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price <sup>1</sup>	Value of Production
	<i>1,000 Acres</i>	<i>Tons</i>	<i>1,000 Tons</i>	<i>Dollars per Ton</i>	<i>1,000 Dollars</i>
<b>Alfalfa &amp; Alfalfa Mixtures</b>					
1994	525	4.20	2,205	80.00	176,400
1995	545	4.30	2,344	66.00	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	77.00	184,646
1999	540	4.40	2,376	73.00	173,448
2000	550	4.00	2,200	79.50	174,900
2001	550	4.00	2,200	98.00	215,600
<b>All Other Hay</b>					
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	51.50	19,570
1999	160	2.30	368	37.50	13,800
2000	150	2.00	300	52.00	15,600
2001	160	2.10	336	57.00	19,152
<b>All Hay</b>					
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	76.00	204,216
1999	700	3.92	2,744	71.50	187,248
2000	700	3.57	2,500	78.50	190,500
2001	710	3.57	2,536	96.50	234,752

<sup>1</sup> Baled hay.

### Hay: Stocks on Farms, May 1 and December 1, Utah, 1994-2002

Year	May 1	December 1
	<i>1,000 Tons</i>	<i>1,000 Tons</i>
1994	323	1,452
1995	245	1,481
1996	349	1,327
1997	302	1,658
1998	435	1,695
1999	485	1,540
2000	320	1,150
2001	200	1,470
2002	210	( <sup>1</sup> )

<sup>1</sup> Available January 2003



## Grain Stocks Stored Off Farm: Wheat, Barley, Oats, and Corn Utah, by Quarters, 1994-2002 <sup>1</sup>

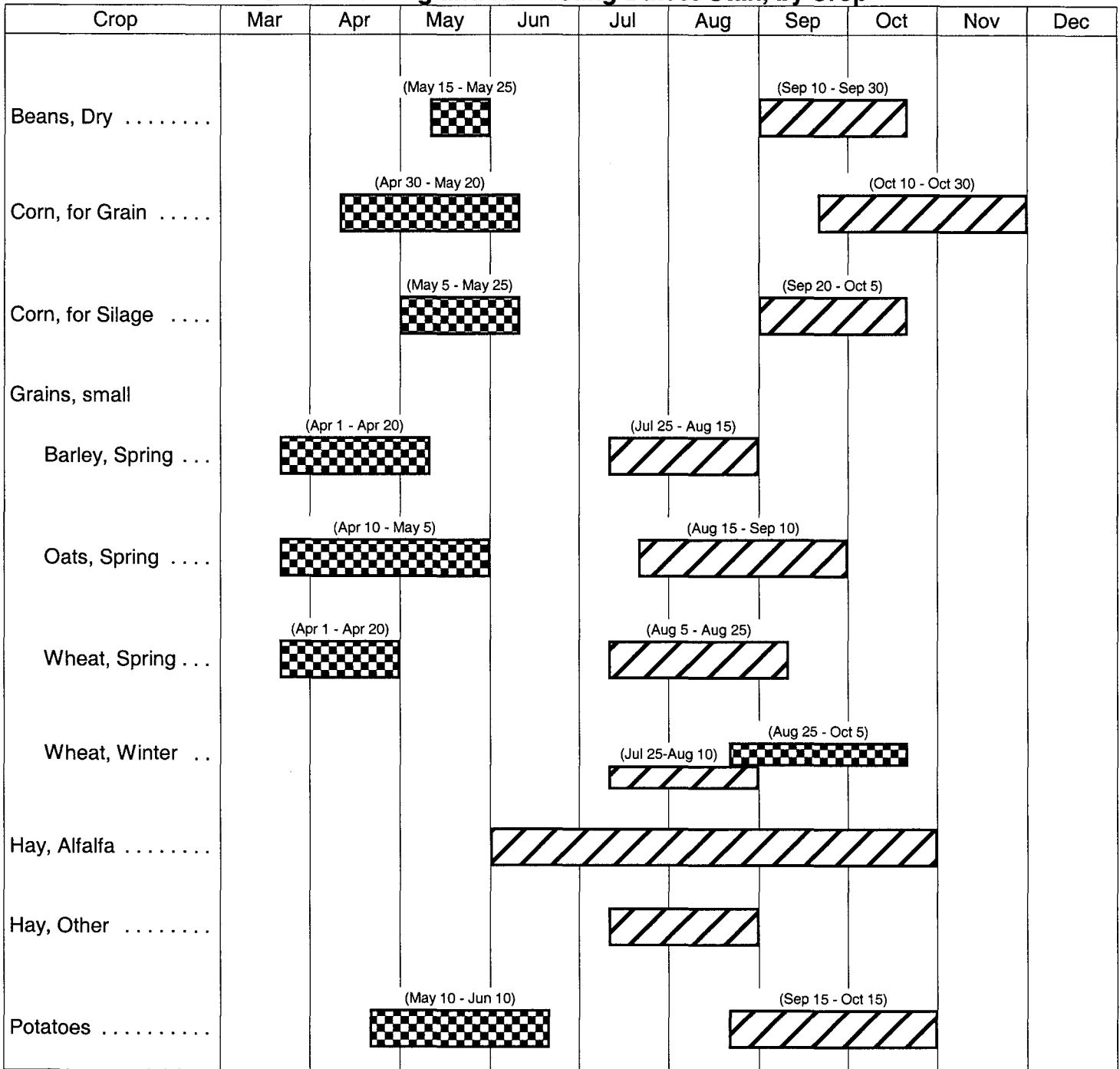
Year	March 1 <i>1,000 Bushels</i>	June 1 <i>1,000 Bushels</i>	September 1 <i>1,000 Bushels</i>	December 1 <i>1,000 Bushels</i>
<b>All Wheat</b>				
1994	6,542	4,369	5,856	3,264
1995	5,106	3,625	5,165	5,807
1996	5,143	3,684	2,998	3,248
1997	3,775	3,398	4,401	6,410
1998	5,557	4,894	5,472	5,538
1999	5,266	4,261	4,685	4,587
2000	5,737	4,499	5,214	5,266
2001	5,186	5,710	4,522	4,089
2002	4,794	4,389	( <sup>2</sup> )	
<b>Barley</b>				
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	713	1,698	1,678
2000	1,244	721	1,461	1,327
2001	811	346	1,102	836
2002	547	229	( <sup>2</sup> )	
<b>Oats</b>				
1994	191	72	( <sup>3</sup> )	( <sup>3</sup> )
1995	( <sup>3</sup> )	52	142	115
1996	71	136	76	( <sup>3</sup> )
1997	119	37	( <sup>3</sup> )	95
1998	96	32	68	( <sup>3</sup> )
1999	( <sup>3</sup> )	46	197	97
2000	97	69	323	150
2001	83	32	( <sup>3</sup> )	74
2002	82	54	( <sup>2</sup> )	
<b>Corn</b>				
1994	646	519	255	573
1995	564	432	475	543
1996	609	377	476	865
1997	697	261	( <sup>3</sup> )	632
1998	727	560	630	687
1999	763	( <sup>3</sup> )	( <sup>3</sup> )	763
2000	537	592	284	684
2001	608	245	328	740
2002	852	425	( <sup>2</sup> )	

<sup>1</sup> Includes stocks at mills, elevators, warehouses, terminals, and processors.

<sup>2</sup> Estimates available in the September Grain Stocks release.

<sup>3</sup> Not published to avoid disclosure of individual operations.

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



Usual Planting Dates



Usual Harvesting Dates

( ) Most Active Dates

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



# Fruits

Utah's 2001 estimates of fruit production were lower than the previous year for apples, apricots, sweet cherries, tart cherries, peaches, and pears. Prices were higher for apples, apricots, and pears, but lower for peaches, sweet cherries, and tart cherries.

**Apple production** during 2001, at 30 million pounds, was 39 percent lower than the 2000 crop; and utilized production, at 24 million pounds, was down 44 percent from the previous year. Producers received an average price of 17 cents per pound, 5 cents more than 2000. The 2001 total value of utilized production, at \$4.1 million, was 18 percent lower than the previous year.

**Apricot total production** during 2001 was 260 tons, and utilized production was 230 tons. The average price received by producers was \$639 per ton.

**Peach production**, at 9 million pounds, was 18 percent lower than 2000. Utilized production was 8.9 million pounds compared with 10 million pounds in 2000.

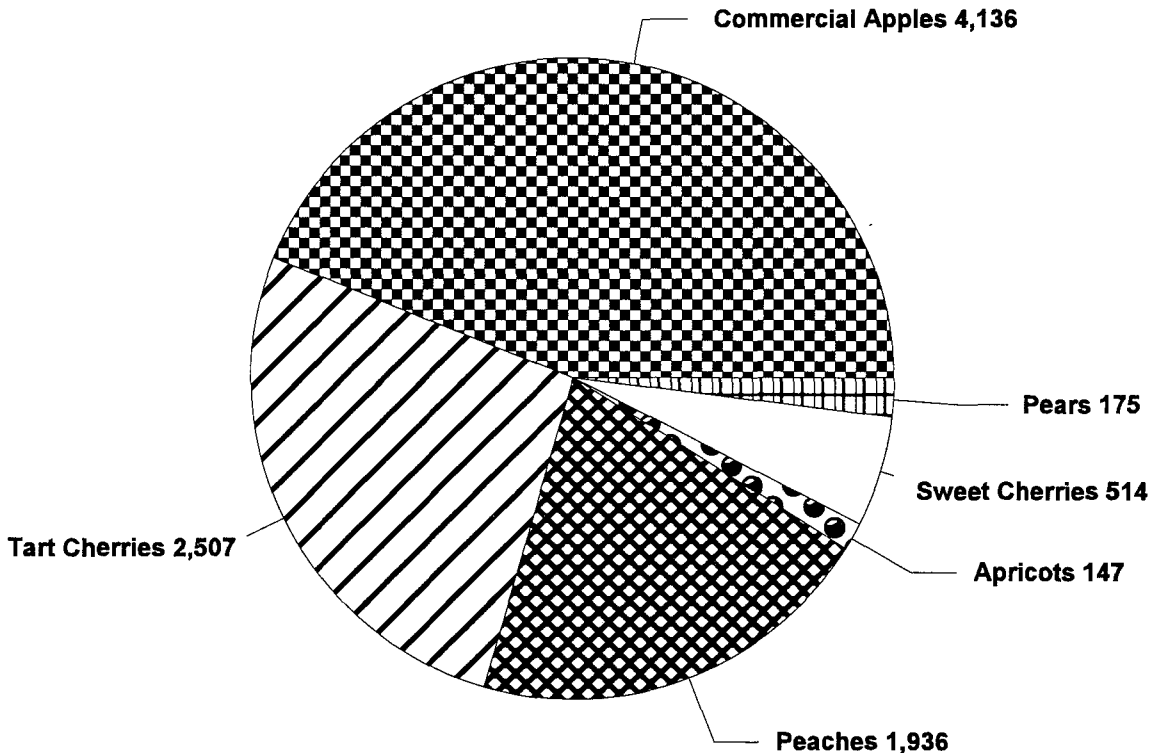
Average price per pound was 22 cents bringing total value of the crop to \$1.9 million, 36 percent lower than 2000.

**Pear production**, at 300 tons, was 50 percent lower than the year before. The average price received by growers was \$583 per ton, \$50 per ton more than 2000. Total value of the crop was \$175,000, down 29 percent from the year earlier.

**Sweet cherry** producers harvested 700 tons, 1,700 tons less than 2000. Utilized production was 650 tons. Average price received by growers was \$791 per ton, down \$269 from the previous year. The total value of the crop was \$514,000, down 79 percent from 2000.

**Tart cherry production** during 2001 was 12.0 million pounds, 64 percent lower than 2000. Utilized production was 11.5 million pounds. Tart cherry prices for the 2001 crop were 22 cents per pound.

**Utah Fruit, Value of Utilized Production (\$000)  
by Crop, 2001**



## Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1994-2001

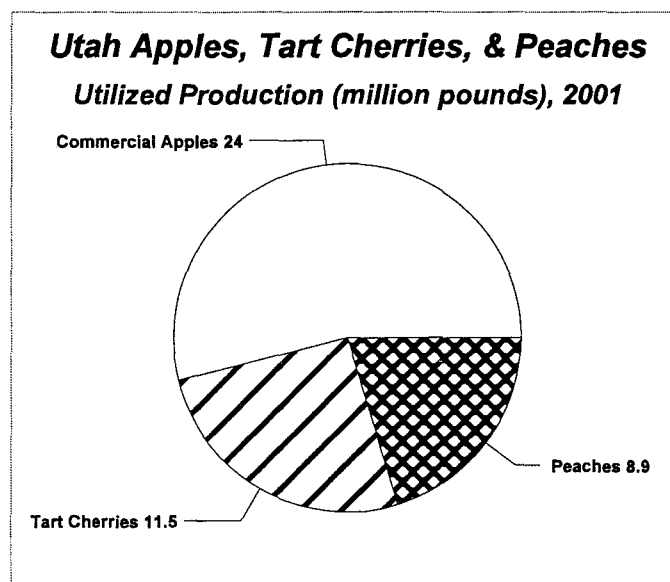
Fruit & Year	Bearing Acreage	Yield per Acre <sup>1</sup>	Production				Utilization		Price per Pound	Value of Utilized Production
			Total	Unutilized		Utilized	Fresh	Processed		
				Un-Harvested	Harvested not Sold					
	<i>Acres</i>	<i>Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	
<b>Commercial Apples</b>										
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	16,100	45.0	14.0		31.0	26.0	5.0	0.145	4,480
1999	2,800	3,210	9.0			9.0	8.0	1.0	0.219	1,970
2000	2,800	17,500	49.0	6.0		43.0	28.0	15.0	0.118	5,060
2001	2,800	10,700	30.0	6.0		24.0	16.0	8.0	0.172	4,136

<b>Tart Cherries</b>										
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	0.160	4,320
1999	2,800	5,180	14.5			14.5		14.5	0.186	2,697
2000	2,800	11,800	33.0	5.0	1.0	27.0		27.0	0.220	5,940
2001	2,800	4,290	12.0	0.5		11.5		11.5	0.218	2,507

<b>Peaches</b>										
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	5,690	7.4	0.3	0.1	7.0	7.0		0.270	1,890
1999	1,300	4,770	6.2			6.2	( <sup>2</sup> )	( <sup>2</sup> )	0.328	2,034
2000	1,300	8,460	11.0	0.6	0.4	10.0	( <sup>2</sup> )	( <sup>2</sup> )	0.300	3,000
2001	1,300	6,920	9.0		0.1	8.9			0.218	1,936

<sup>1</sup> Yield is based on total production.

<sup>2</sup> Not published to avoid disclosure of individual operations.

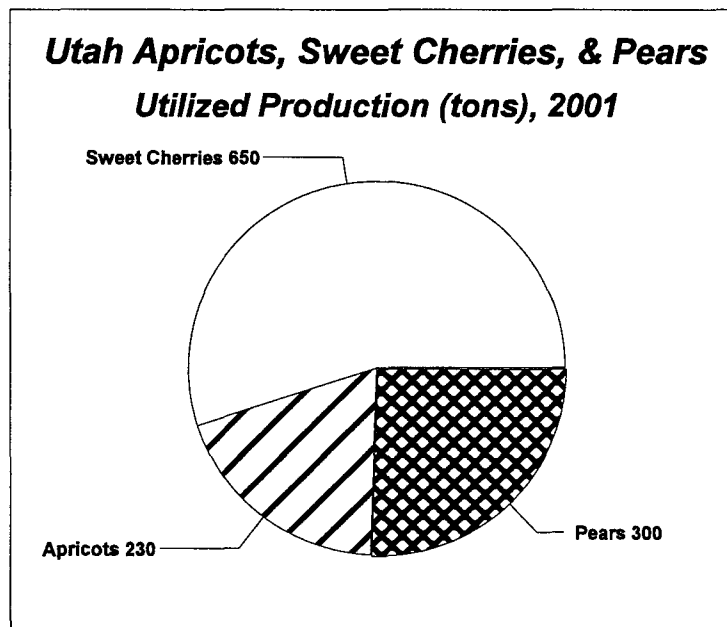


## Fruit: Acreage, Yield, Production, Use, and Value, Utah, 1994-2001

Fruit & Year	Bearing Acreage	Yield per Acre <sup>1</sup>	Production				Utilization		Price per Ton	Value of Utilized Production
			Total	Unutilized		Utilized	Fresh	Processed		
				Un-Harvested	Harvested not Sold					
	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Dollars</i>	<i>1,000 Dollars</i>
<b>Apricots</b>										
1994			400	20		380			511	194
1995										
1996 <sup>2</sup>			300	10		290			859	249
1997			130			130			492	64
1998			190	10		180			728	131
1999										
2000 <sup>2</sup>			400	90	50	260			612	159
2001			260	10	20	230			639	147
<b>Sweet Cherries</b>										
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	4.50	2,700			2,700	800	1,900	687	1,854
1999	600	1.92	1,150			1,150	800	350	999	1,149
2000	600	4.00	2,400	100		2,300	1,600	700	1,060	2,430
2001	600	1.17	700	50		650	300	350	791	514
<b>Pears</b>										
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	30		870	870		307	267
1999	180	1.67	300	3	2	295			458	135
2000	180	3.33	600	40	100	460			533	245
2001	180	1.67	300			300			583	175

<sup>1</sup> Yield is based on total production.

<sup>2</sup> No significant commercial production due to frost damage.



# Onions

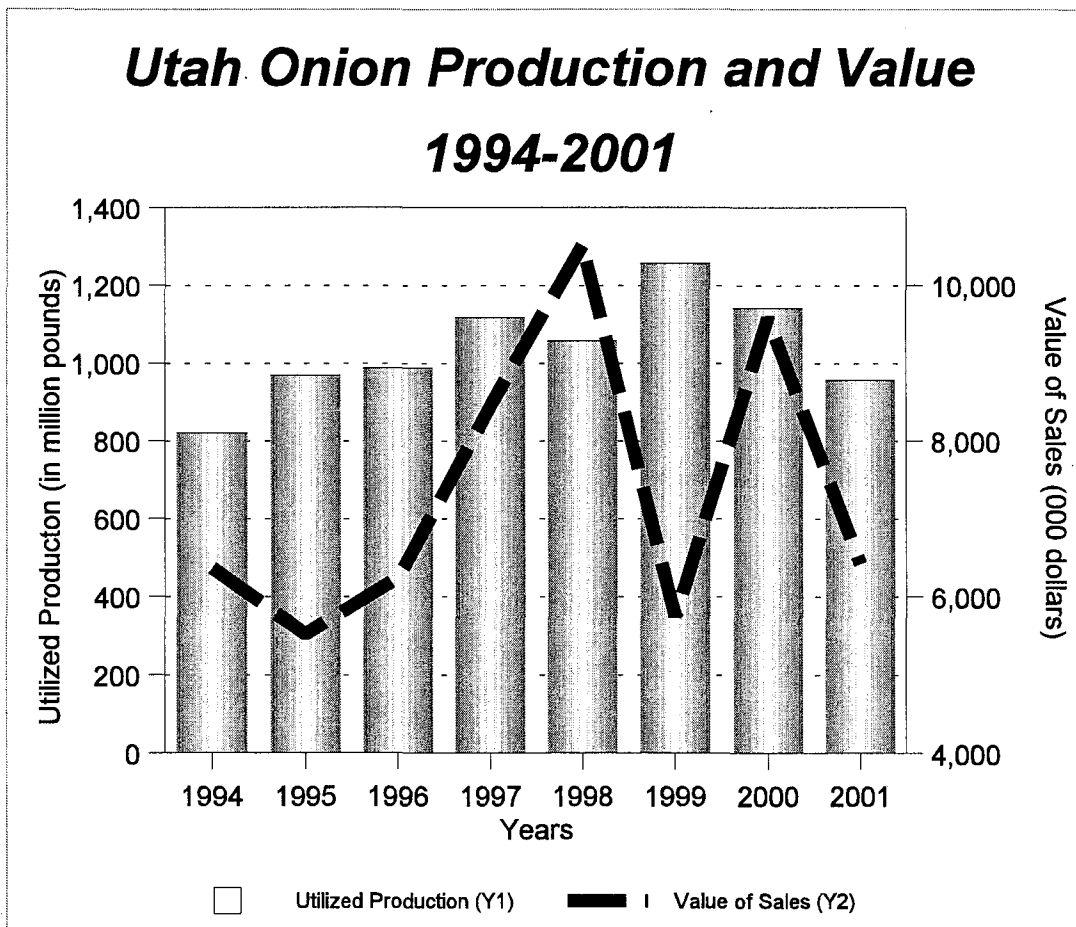
Utah onion growers produced 956 thousand cwt of onions in 2001. This was 16 percent below the previous year's estimate. Growers planted 2,200 acres, down 300 acres from 2000. They harvested 2,100 acres during the year, 300 acres below 2000. The yield per acre was 455 cwt,

20 cwt below the previous year. Farmers received an average of \$7.70 per cwt for their onions, down \$1.60 per cwt from 2000. Total value of the crop was \$6.4 million, down 33 percent from 2000.

## Onions: Summer Storage (Fresh Market), Acreage, Yield, Production, and Value Utah, 1994-2001

Year	Acreage		Yield per Acre	Production	Quantity Not Sold <sup>1</sup>	Sales	Value of Sales	
	Planted	Harvested					Per Cwt	Total
	Acres	Acres	Cwt	1,000	1,000	1,000	Dollars	1,000 Dollars
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	2,500	2,400	440	1,056	99	957	11.00	10,527
1999	2,800	2,700	465	1,256	265	991	5.80	5,748
2000	2,500	2,400	475	1,140	110	1,030	9.30	9,579
2001	2,200	2,100	455	956	122	834	7.70	6,422

<sup>1</sup> Includes shrinkage, waste, and cullage.



# Floriculture

In 2001 there were 82 growers of floriculture in Utah with wholesale values of sales of \$10,000 or more. They had 4.7 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 \$30.6 million. Of the \$30.6 million, the value of sales for potted flowering plants was \$8.4 million; foliage for indoor or patio use was \$4.2 million; and total

bedding/garden plants was \$18.0 million.

Additional detail on floriculture production and wholesale price can be found in the national floriculture publication on the NASS web site at <http://www.usda.gov/nass/pubs/estindx1.htm#floriculture> on the Internet.

## Floriculture Crops: Wholesale Value of Sales, Utah, Selected Types, 1994-2001 <sup>1/</sup>

Year	Total Cut Flowers	Total Potted Flowering Plants	Total Foliage for Indoor or Patio Use <sup>2/</sup>	Total Bedding/Garden Plants <sup>3/</sup>	Annual Bedding/Garden Plants	Herbaceous Perennial Plants	Total Wholesale Value of Reported Crops
	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>
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	9,641	845	19,054	--	--	29,693
1999	--	8,614	5,544	22,105	--	--	36,263
2000	--	11,040	2,282	17,220	13,798	3,422	30,542
2001	--	8,380	4,165	18,011	14,32	3,679	30,556

<sup>1/</sup> Based only on reported numbers from growers with \$100,000 or more in sales of floriculture crops. <sup>2/</sup> Data for 1999 and 2000 are not comparable. Data for 1999 represents net value (total sales minus cost of young plants). Data for 2000 represents wholesale equivalent value of all sales. <sup>3/</sup> Includes Annual Bedding Plants and Herbaceous Perennials.

## Hanging Baskets: Quantity Sold Wholesale, Utah, Selected Types, 1994-2001 <sup>1/</sup>

Year	Geraniums <sup>5/</sup>	Foliage <sup>6/</sup>	Petunias <sup>4/</sup>	New Guinea Impatiens <sup>3/</sup>	Impatiens <sup>6/</sup>	Other Flowering and Foliar Type
	<i>1,000 Baskets</i>	<i>1,000 Baskets</i>	<i>1,000 Baskets</i>	<i>1,000 Baskets</i>	<i>1,000 Baskets</i>	<i>1,000 Baskets</i>
1994	--	--	--	--	--	50
1995	--	--	--	--	--	40
1996	--	--	--	--	--	49
1997	--	--	--	10	--	63
1998	--	--	13	10	--	65
1999	29	--	10	7	--	108
2000	16	--	11	3	--	83
2001	21	282	11	5	4	93

See footnotes at bottom of page 54

**Potted Flowers: Quantity Sold Wholesale, Utah, Selected Types, 1994-2001** <sup>1/</sup>

Year	Begonias	Geraniums		Poinsettias	New Guinea Impatiens	Impatiens	Other Flowering and Foliar Type Bedding Plants
		from Vegetative Cuttings	from Seed				
	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>
1994	--	--	--	843	18	--	877
1995	--	--	--	709	52	--	676
1996	--	--	--	467	47	--	1,368
1997	--	--	--	851	43	--	1,444
1998	--	--	--	930	49	--	2,198
1999	--	587	593	634	86	60	1,967
2000	40	673	581	877	92	24	702
2001	55	680	554	961	69	22	494

See footnotes at bottom of page

**Potted Flowers: Quantity Sold Wholesale, Utah, Selected Types, 1994-2001** <sup>1/ (continued)</sup>

Year	Other Potted Flowering Plants	Vegetable Type Bedding Plants	Hardy Garden Chrysanthemums	Potted Hosta	Petunias	Marigolds	Other Herbaceous Perennials
	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>	<i>1,000 Pots</i>
1994	--	--	296	--	--	--	--
1995	--	--	170	--	--	--	--
1996	--	--	242	--	--	--	--
1997	--	--	204	--	--	--	--
1998	--	--	198	--	--	--	--
1999	--	258	217	--	101	--	--
2000	--	430	201	21	77	72	1,980
2001	632	300	137	23	--	62	1,931

See footnotes at bottom of page

**Bedding Plants (Flats): Quantity Sold Wholesale, Utah, Selected Types, 1994-2001** <sup>1/</sup>

Year	Impatiens	Marigolds <sup>2/</sup>	Begonias <sup>2/</sup>	Geraniums from Seed <sup>2/</sup>	Pansy/Viola <sup>2/</sup>	Petunias	All Other Flowering and Foliar Type <sup>2/</sup>	Vegetable Type
	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>	<i>1,000 Flats</i>
1994	54	--	--	--	--	120	559	98
1995	76	--	--	--	--	151	676	130
1996	80	--	--	--	--	163	656	124
1997	68	--	--	--	--	210	592	101
1998	80	--	--	--	--	192	861	158
1999	93	--	--	--	--	211	1,031	147
2000	72	93	41	1	104	212	377	99
2001	70	113	44	5	118	212	482	95

See footnotes at bottom of page

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

<sup>2/</sup> Other flowering and foliage type bedding plants. Excludes Geraniums, Impatiens, New Guinea Impatiens, Petunias, and Vegetable type bedding plants.

# Cattle and Calves

On January 1, 2002, Utah cattlemen had a total of 920,000 cattle and calves on farms and ranches, 10,000 head more than the number on hand January 1, 2001. Beef cows, at 357,000 head, had 2,000 more head than January 1, 2001. Milk cows, at 93,000 head, had 2,000 less head than January 1, 2001. Beef cow replacement heifers weighing 500 pounds or more were estimated at 75,000 head, the same as the January 1, 2001 number. Milk cow replacements totaled 44,000 head, 2,000 head less than January 1, 2001. Other heifers, at 71,000 head, increased 2,000 head from the previous year's level. Steers 500 pounds and over totaled 126,000 head, 4,000 more than January 1, 2001. Bulls, at 24,000 head, increased 1,000 head from the 2001 level. Calves weighing less than 500 pounds were estimated at 130,000 head, 5,000 head less than the January 1, 2001 level.

Utah's 2001 calf crop totaled 400,000 head, the same as 2000.

Cattle and calves on full feed for slaughter totaled 25,000 head January 1, 2002, a decrease of 10,000 head from January 1, 2001.

Value per head of all cattle and calves averaged \$770.00 on January 1, 2002 compared with \$720.00 per head on January 1, 2001. Total inventory was valued

at \$708.4 million, up 8.1 percent from 2001.

Utah operations with cattle and calves in 2001 totaled 8,000, the same as in 2000. The breakdown by size group was as follows: 4,600 operations with 1 to 49 head; 1,200 with 50 to 99 head; 1,800 with 100 to 499 head; 270 with 500 to 999 head; and 130 with 1,000 head or more.

Operations with more than 500 head accounted for 42 percent of the Utah cattle inventory while those with 100 to 499 head accounted for 41 percent of the total inventory.

Beef production during 2001 totaled 397.2 million pounds, down 1.3 percent from the previous year. Marketings during 2001 totaled 475.6 million pounds, down 0.3 percent from 2000.

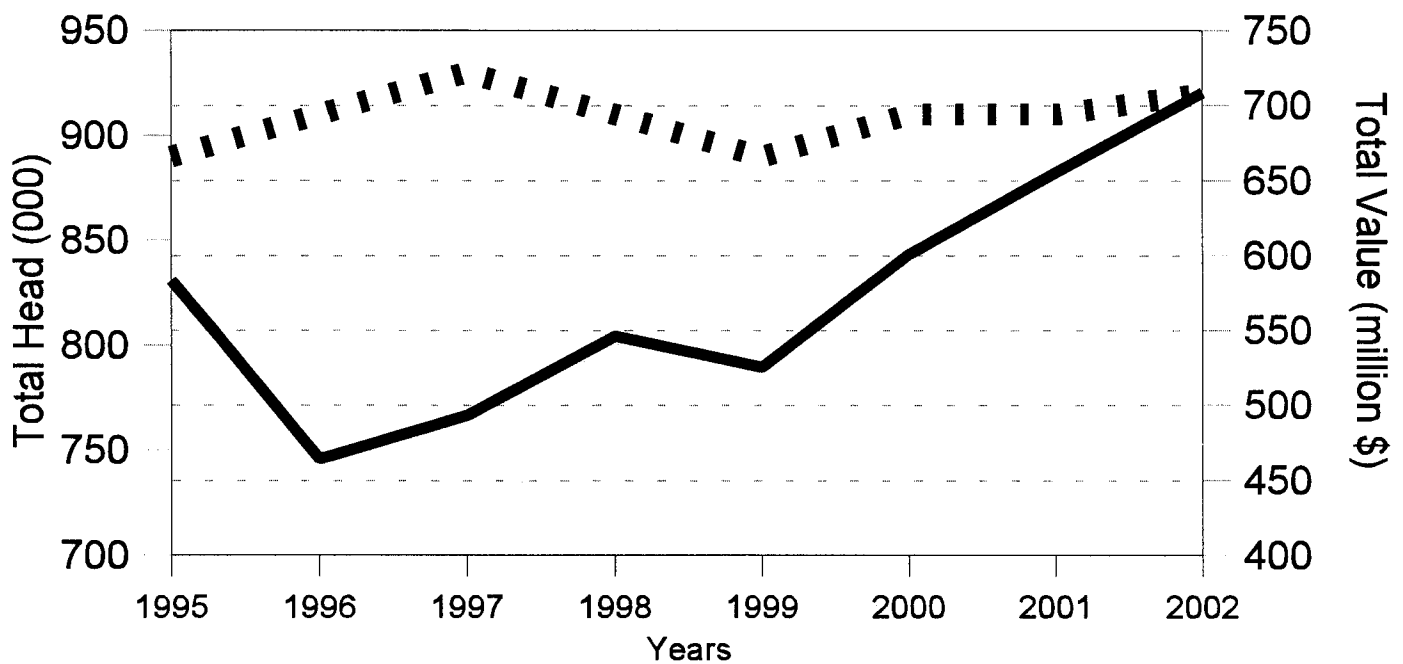
Cash receipts for 2001 totaled \$374.5 million, up 6.7 percent from the previous year. Price of all cattle averaged \$76.60 per hundredweight (cwt), up \$5.30 from 2000. The 2001 average slaughter cow price, at \$40.80 per cwt compares with \$38.60 in 2000. The 2001 steer and heifer price at \$79.30 per cwt was \$5.50 more than 2000. The average price for calves less than 500 pounds during 2001 was \$104.00 per cwt, up \$5.10 from 2000.



### Cattle: Farms, Inventory, and Value, Utah, January 1, 1995-2002

Year	Farms		All Cattle and Calves on Farms January 1			
	with Cattle	with Milk Cows	On Feed for Market	Total Number	Value	
	Number	Number	1,000 Head	1,000 Head	Per Head Dollars	Total 1,000 Dollars
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	7,900	860	40	890	590	525,100
2000	8,000	830	35	910	660	600,600
2001	8,000	760	35	910	720	655,200
2002	--	--	25	920	770	708,400

## Utah Cattle Inventory and Value January 1, 1995-2002



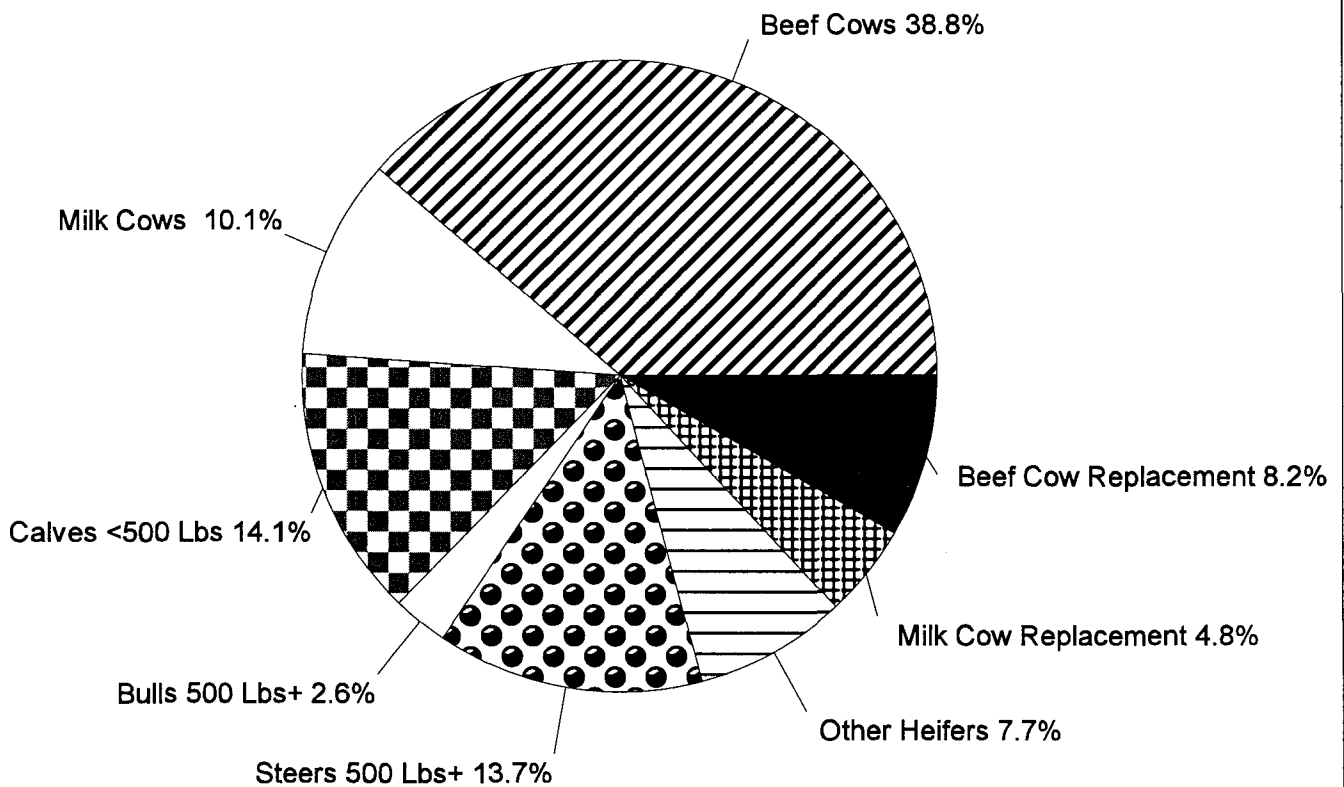
Head (Y1)
  Total Value (Y2)



**Cattle: Inventory by Classes and Weight, Utah, January 1, 1995-2002**

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 Replacements	Milk Cow Replacements	Other			
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>
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	430	355	90	198	68	50	80	120	22	125
1999	890	430	335	95	185	72	43	70	120	22	133
2000	910	450	355	95	190	70	46	74	112	23	135
2001	910	450	355	95	190	75	46	69	122	23	125
2002	920	450	357	93	190	75	44	71	126	24	130

**Utah Cattle Inventory by Class  
January 1, 2002**

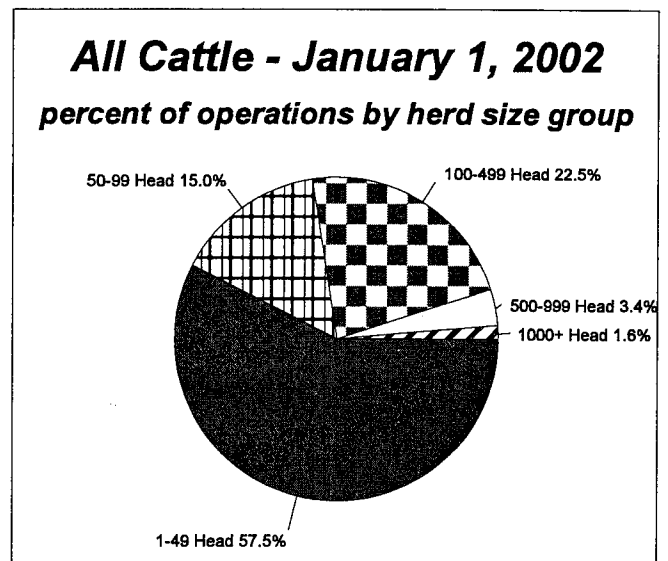
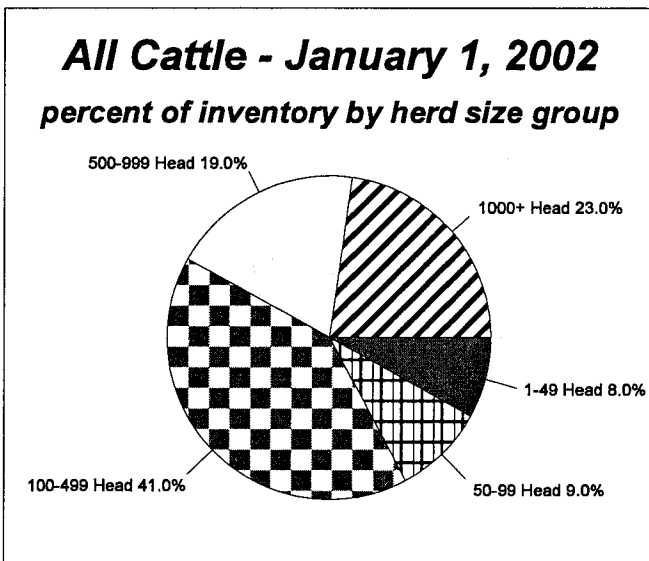


## All Cattle & Calves: Number of Operations & Percent of Total Inventory by Size Groups, 1996-2001

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
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
1999	4,500	6.5	1,200	9.5	1,800	42.0	270	19.0	130	23.0
2000	4,400	7.0	1,300	10.0	1,900	43.0	270	18.0	130	22.0
2001	4,600	8.0	1,200	9.0	1,800	41.0	270	19.0	130	23.0

## Beef Cows: Number of Operations & Percent of Total Inventory by Size Groups, 1996-2001

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
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
1999	3,700	13.0	900	17.0	910	46.0	90	24.0
2000	3,700	13.0	950	16.0	960	48.0	90	23.0
2001	3,700	14.0	950	16.0	960	48.0	90	22.0



### Calf Crop: Utah, 1994 - 2002

Year	Cows That Have Calved January 1	Calf Crop	
		Total	Percent of Cows Calved January 1 <sup>1</sup>
	1,000 Head	1,000 Head	Percent
1994	425	380	89
1995	430	390	91
1996	440	395	90
1997	445	390	88
1998	430	380	88
1999	430	390	91
2000	450	400	89
2001	450	400	89
2002	450	--	--



<sup>1</sup> 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.

<sup>2</sup> Not published to avoid disclosure of individual operations.

### Cattle and Calves: Balance Sheet, Utah, 1994 - 2001

Year	Inventory Beginning of Year	Calf Crop	Inshipments	Marketings <sup>1</sup>		Farm Slaughter Cattle & Calves <sup>2</sup>	Deaths		Inventory End of Year
				Cattle	Calves		Cattle	Calves	
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
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
1999	890	390	135	370	90	4	14	27	910
2000	910	400	120	380	94	4	14	28	910
2001	910	400	126	380	90	4	15	27	920

<sup>1</sup> Includes custom slaughter for use on farms where produced and State outshipments, but excludes interfarm sales within the State.

<sup>2</sup> Excludes custom slaughter at commercial establishments.

### Cattle and Calves: Production, Marketings and Income, Utah, 1994 - 2001

Year	Production <sup>1</sup>	Marketings <sup>2</sup>	Average Price per 100 Lbs				Value of Production	Cash Receipts <sup>3</sup>	Value of Home Consumption	Gross Income
			Cattle			Calves				
			Cows	Steers & Heifers	All					
1,000 Pounds	1,000 Pounds	Dollars	Dollars	Dollars	Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars	
1994	362,280	397,200	45.00	71.00	69.00	88.00	256,237	280,845	6,458	287,303
1995	375,125	419,900	37.50	63.10	61.40	71.10	233,546	261,438	5,747	267,185
1996	380,400	441,840	32.00	57.00	55.00	58.00	210,401	244,193	5,148	249,341
1997	392,665	482,880	37.00	68.00	65.00	80.00	260,681	319,899	6,084	325,983
1998	372,580	471,850	34.00	65.00	63.00	81.00	242,276	304,277	5,897	310,174
1999	390,090	463,950	36.80	68.30	66.10	86.40	265,492	314,162	6,187	320,349
2000	402,500	477,290	38.60	73.80	71.30	98.90	296,585	350,945	6,674	357,619
2001	397,185	475,650	40.80	79.30	76.60	104.00	314,868	374,459	7,170	381,629

<sup>1</sup> Includes custom slaughter for use on farms where produced and State outshipments, but excludes interfarm sales within the State.

<sup>2</sup> Excludes custom slaughter at commercial establishments.

<sup>3</sup> Receipts from marketings and sale of farm slaughter.

# Dairy

Milk production in Utah reached 1.64 billion pounds in 2001, down 3.1 percent from 2000. Production per cow, 17,581 pounds, increased slightly from the previous year. The 2001 milkfat per cow was 640 pounds, 2 pounds higher than the 2000 average. The total number of milk cows was 93,000 head, 3,000 head higher than 2000.

There were an estimated 760 farms with one or more milk cows during 2001, a decrease of 70 farms from 2000. The breakdown of dairy farms by herd size was as follows: 270 farms with 1 to 29 head; 30 farms with 30 to 49 head; 140 farms with 50 to 99 head; 170 farms with 100 to 199 head; 110 farms with 200 to 499 head; and 40 farms with 500 or more cows. The 270 farms in the 1 to 29 head category accounted for only one 1.0 percent. The 50 to 99 size group had 11.0 percent, and the 100 to 199 size group had 24.0 percent. The 200 to 499 size group had 32.0 percent, and the 500+ size group had 31.0 percent of the inventory.

Cash receipts from milk marketings during the 2001 totaled \$236.7 million, an increase of 27 percent from 2000. The average price per hundredweight of all milk was \$14.70 compared with \$11.20 received the previous year.

Utah's 2001 total cheese production excluding cottage cheese was 62.6 million pounds, down 16 percent from the previous year. American cheese, at 19.2 million pounds, decreased 50 percent from 2000. Cheddar cheese, at 19.2 million pounds, accounted 100 percent of the total American cheese produced. Production of Swiss cheese totaled 29.1 million pounds, 2.0 percent lower than 2000. Swiss cheese accounted for 54 percent of the total cheese produced. All other types of cheese, at 14.3 million pounds, accounted for the remainder of the cheese produced. Hard ice cream production, at 15.0 million gallons, was 17 percent above 2000. There were 20 dairy plants in Utah that produced one or more dairy products in 2001 as compared with 21 since 1997.

## Dairy: Farms, Milk Production and Milkfat, Utah, 1994-2001

Year	Farms With Milk Cows	Number of Milk Cows on Farms <sup>1</sup>	Production of Milk & Milkfat <sup>2</sup>				
			Milk Per Cow		Total		
			Milk	Milkfat	Percentage Milkfat	Milk	Milkfat
	<i>Number</i>	<i>1,000 Head</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Percent</i>	<i>Million Pounds</i>	<i>Million Pounds</i>
1994	1,200	86	16,640	601	3.61	1,431	51.7
1995	1,000	88	16,739	604	3.61	1,473	53.2
1996	900	91	17,000	617	3.63	1,547	56.2
1997	900	91	16,923	609	3.60	1,540	55.4
1998	900	90	16,811	609	3.62	1,513	54.8
1999	860	92	17,587	637	3.62	1,618	58.6
2000	830	96	17,573	638	3.63	1,687	61.2
2001	760	93	17,581	640	3.64	1,635	59.5

<sup>1</sup> Average number on farms during year, excluding heifers not yet freshened. <sup>2</sup> Excludes milk sucked by calves.

## Milk Disposition: Milk Used and Marketed by Producers, Utah, 1994-2001

Year	Milk Used Where Produced			Milk Marketed by Producers	
	Fed to calves <sup>1</sup>	Used for Milk, Cream, and Butter	Total	Total	Fluid Grade <sup>3</sup>
	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Million Pounds</i>	<i>Percent</i>
1994	20	3	23	1,408	90
1995	24	2	26	1,447	90
1996	24	3	27	1,520	91
1997	18	2	20	1,520	91
1998	10	2	12	1,501	91
1999	18	2	20	1,598	92
2000	24	2	26	1,661	94
2001	23	2	25	1,610	96

<sup>1</sup> Excludes milk sucked by calves.

<sup>2</sup> Milk sold to plants and dealers as whole milk and equivalent amounts of milk for cream. Includes milk produced by dealers' own herds and small amounts sold directly to consumers. Also includes milk produced by institutional herds.

<sup>3</sup> Percentage of milk sold that is eligible for fluid use (grade A for fluid use). Includes fluid-grade milk used in manufacturing dairy products.

## Dairy: Milk Cows and Milk Production, Utah, by Quarter, 1994-2001

Year	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Annual Total <sup>1</sup>
<b>Milk Cows (1,000 Head) <sup>2 3</sup></b>					
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
1999	91	92	93	93	92
2000	94	96	97	95	96
2001	93	93	93	93	93

<b>Milk per Cow (Pounds) <sup>4 5</sup></b>					
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
1999	4,220	4,489	4,441	4,387	17,587
2000	4,362	4,521	4,515	4,263	17,573
2001	4,237	4,452	4,505	4,387	17,581

<b>Milk Produced (Million Pounds) <sup>4 6</sup></b>					
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
1999	384	413	413	408	1,618
2000	410	434	438	405	1,687
2001	394	414	419	408	1,635

<sup>1</sup> Milk cows is average number during year, milk per cow and milk produced is total for year.

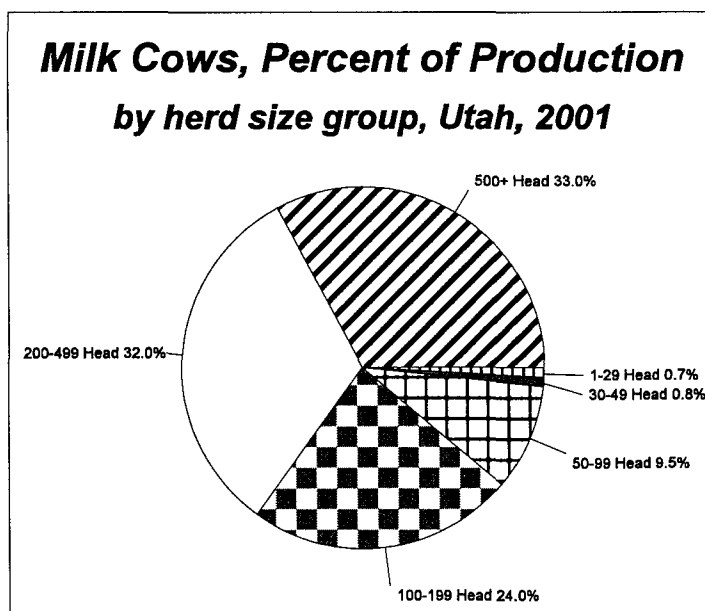
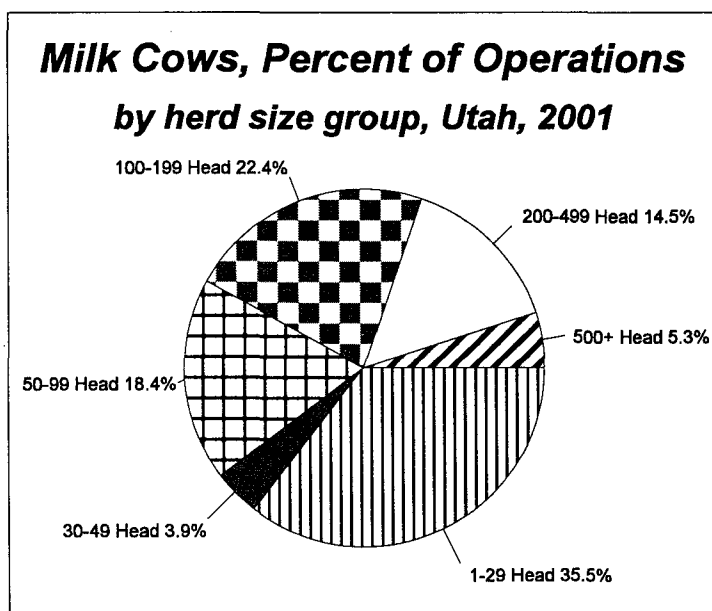
<sup>2</sup> Includes dry cows, excludes heifers not yet freshened.

<sup>3</sup> Average for quarter.

<sup>4</sup> Excludes milk sucked by calves.

<sup>5</sup> Quarterly milk production divided by quarterly average of milk cows.

<sup>6</sup> Total produced for quarter.



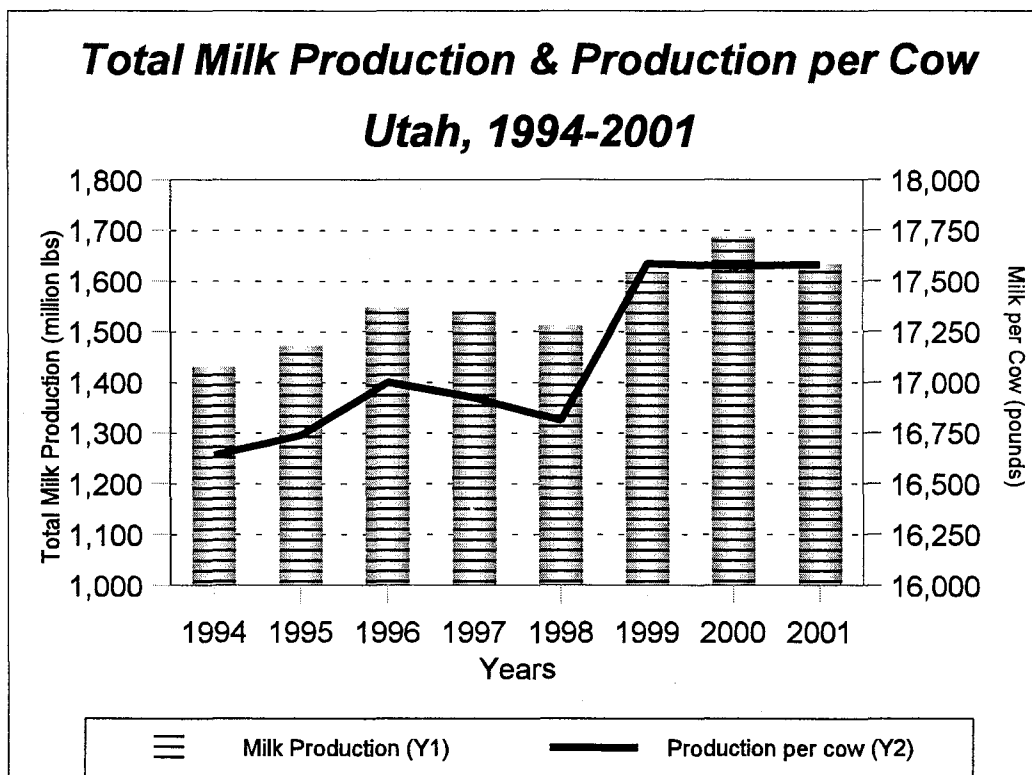
## Milk Cows: Number of Operations & Percent of Total Inventory & Production by Size Groups, 1996-2001

Year	Operations Having								
	1-29 Head			30-49 Head			50-99 Head		
	Operations	Inventory	Production	Operations	Inventory	Production	Operations	Inventory	Production
	<i>Number</i>	<i>Percent</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent</i>
1996	300	1.3	1.0	70	2.7	2.0	190	16.0	14.0
1997	320	1.3	1.0	70	2.7	2.0	165	13.0	10.0
1998	340	1.5	1.0	60	2.5	2.0	165	13.0	10.0
1999	280	0.9	1.0	60	2.1	2.0	190	14.0	12.0
2000	300	0.9	0.6	55	2.1	1.9	150	11.0	9.5
2001	270	1.0	0.7	30	1.0	0.8	140	11.0	9.5

## Milk Cows: Number of Operations & Percent of Total Inventory & Production by Size Groups, 1996-2001(continued)

Year	Operations Having								
	100-199 Head			200-499 Head			500+ Head		
	Operations	Inventory	Production	Operations	Inventory	Production	Operations	Inventory	Production
	<i>Number</i>	<i>Percent</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent</i>
1996	210	31.0	31.0						
1997	210	29.0	30.0	110	35.0	38.0	25	19.0	19.0
1998	190	25.0	28.0	120	37.0	39.0	25	21.0	20.0
1999	180	24.0	23.0	120	35.0	35.0	30	24.0	27.0
2000	180	25.0	24.0	110	32.0	34.0	35	29.0	30.0
2001	170	24.0	24.0	110	32.0	32.0	40	31.0	33.0

<sup>1</sup> In 1996, operations were not divided into 200-499 head and 500+. The number of operations with 200+ head was 130. The percent inventory was 49.0. And the production percent was 52.0.



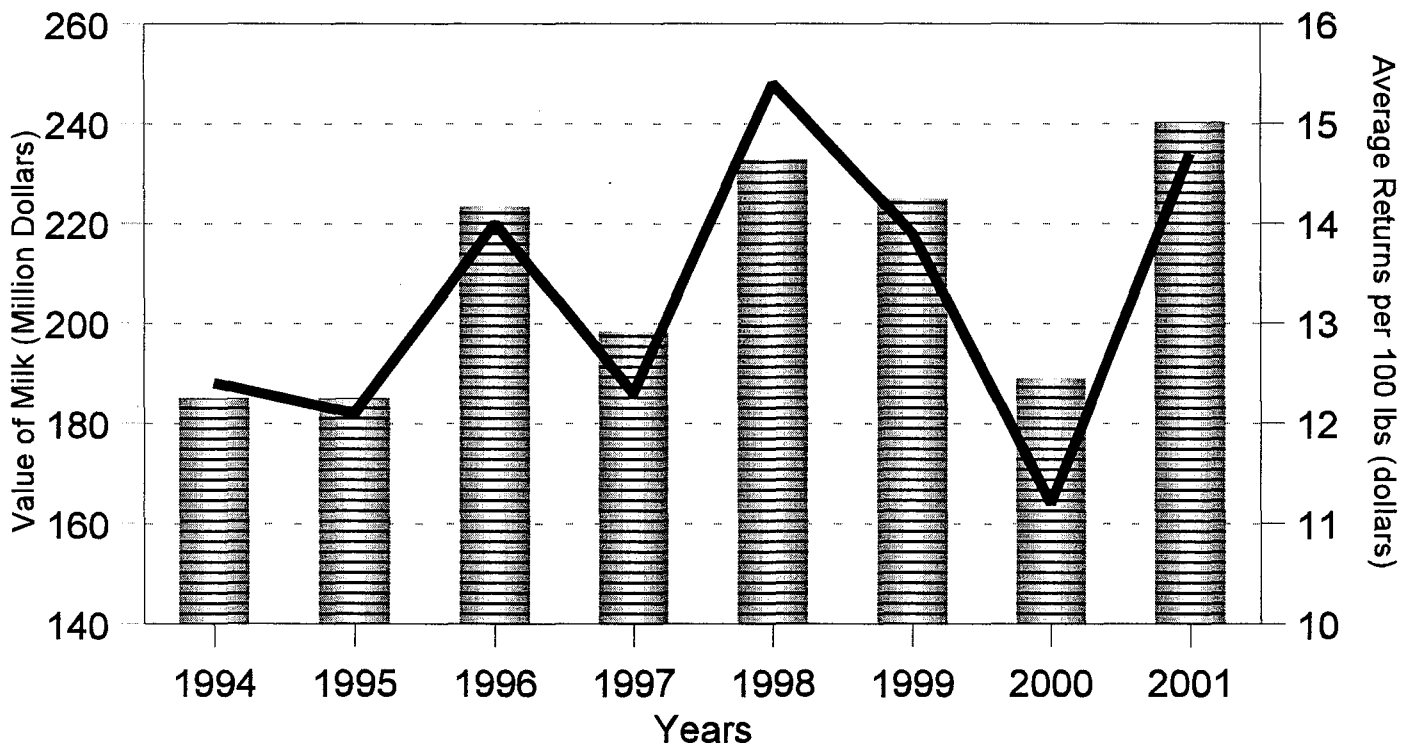
## Milk & Cream: Marketings, Used on Farm, Income, and Value, Utah, 1994-2001

Year	Combined Marketings of Milk & Cream				Used for Milk, Cream & Butter by Producers		Gross Producer Income <sup>1</sup>	Value of Milk Produced <sup>2</sup>
	Milk Utilized	Average Returns		Cash Receipts from Marketings	Milk Utilized	Value		
		Per 100 Pounds Milk	Per Pound Milkfat					
	<i>Million Pounds</i>	<i>Dollars</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	<i>Million Pounds</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>
1994	1,408	12.40	3.58	181,930	3	388	182,318	184,902
1995	1,447	12.10	3.48	181,837	2	251	182,088	185,104
1996	1,520	14.00	3.98	219,476	3	433	219,909	223,375
1997	1,520	12.30	3.58	195,825	2	258	196,083	198,402
1998	1,501	15.40	4.25	231,154	2	308	231,462	233,002
1999	1,598	13.90	3.84	222,122	2	278	222,400	224,902
2000	1,661	11.20	3.09	186,032	2	224	186,256	188,944
2001	1,610	14.70	4.04	236,670	2	294	236,964	240,345

<sup>1</sup> Cash receipts from marketings of milk and cream, plus value of milk used for home consumption.

<sup>2</sup> Includes value of milk fed to calves.

### Value of Milk Produced & Average Returns per 100 Pounds of Milk, Utah, 1994-2001



Value of Milk Produced (Y1)
  Average returns (Y2)

### Cheese: Production, Utah, 1994-2001

Year	American			Swiss <sup>1</sup>	Total Other Cheese <sup>2</sup>	Total Cheese <sup>3</sup>
	Cheddar	Other	Total			
	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
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
1999	26,492	12,747	39,239	27,635	8,754	75,628
2000	27,129	10,918	38,047	29,730	7,018	74,795
2001	19,165		19,165	29,115	14,316	62,596

<sup>1</sup> Data for years with less than 3 plants published by permission of the firms involved.

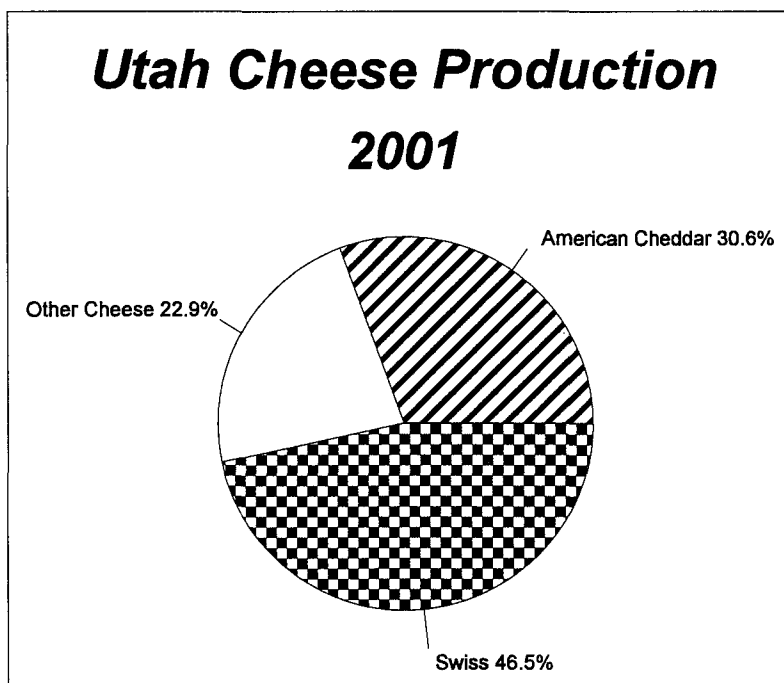
<sup>2</sup> Includes cheese other than American and Swiss.

<sup>3</sup> Excludes cottage cheese.

### Frozen Products and Dry Whey: Production, Utah, 1994-2001

Year	Hard Ice Cream	Sherbet	Dry Whey		
			Human Food	Animal Feed	Total
	<i>1,000 Gallons</i>	<i>1,000 Gallons</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>
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
1999	11,369	1,408	23,196	3,119	26,315
2000	12,825	1,306	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
2001	15,045	1,569	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Not published to avoid disclosure of individual operations.





# Sheep and Wool

Utah sheep and lamb inventory on January 1, 2002 totaled 365,000 head, 25,000 head less than January 1, 2001. Inventory of breeding sheep and lambs at the beginning of 2002 was 320,000 head, a decrease of 30,000 head. Ewes one year old and older totaled 275,000 head, down 25,000 head from a year earlier. Rams over one year of age totaled 9,000 head, 2,000 head less than January 1, 2001. Breeding replacement lambs, at 36,000 head, was down 3,000 head from the 2001 inventory. Market sheep and lambs for slaughter totaled 45,000 head, up 5,000 head from 2001. The 2001 lamb crop was estimated at 305,000 head, down 25,000 head from the previous year.

Sheep and lamb operations totaled 1,500 in 2001, the same as 2000. January 1, 2002 sheep and lamb inventory had an average value per head of \$84.00, down \$14.00 from the 2001 level. Utah's sheep inventory value totaled \$30.7 million, 20 percent lower than January 1, 2001.

Cash receipts during 2001 totaled \$15.2 million, 29 percent lower than the 2000 level. Marketings of sheep and lambs totaled 29.2 million pounds, up 1.1 percent from the previous year. The average 2001 sheep price was \$27.10 per hundredweight (cwt), \$1.10 less than the 2000 average. Lambs averaged \$61.00 per cwt during 2001 which was \$21.90 less than the previous year.

There were 295,000 sheep shorn in 2001, 25,000 less than 2000. Wool production totaled 2.8 million pounds during 2001, down 8.5 percent from the 2000 production level. Average fleece weight was 9.5 pounds as compared with 9.6 pounds in 2000.

The value of the 2001 wool crop was \$812,000, up 21 percent from 2000 but 16 percent below 1999. The average price per pound for wool during 2001 was 29 cents per pound. This price was 7 cents per pound higher than 2000 but 3 cents lower than 1999.

**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, 1995-2002

Year	Operations with Sheep	All Sheep and Lambs on Farms January 1				
		Number <sup>1</sup>	Value		Total Breeding <sup>2</sup>	Total Market <sup>3</sup>
			Per Head	Total		
	<i>Number</i>	<i>1,000 Head</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	<i>1,000</i>	<i>1,000</i>
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	1,500	400	100.00	40,000	360	40
2000	1,500	400	99.00	39,600	360	40
2001	1,500	390	98.00	38,220	350	40
2002	( <sup>4</sup> )	365	84.00	30,660	320	45

<sup>1</sup> 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.

<sup>2</sup> Breeding sheep and lambs beginning January 1, 1995.

<sup>3</sup> Market sheep and lambs beginning January 1, 1995.

<sup>4</sup> Estimate published with January 1, 2002 sheep inventory.

## Breeding Sheep and Lambs and Lamb Crop: Inventory by Class Utah, January 1, 1995-2002

Year	Breeding Sheep and Lambs				Lamb Crop <sup>1</sup>	
	Total	Sheep 1 yr old and older		Replacement Lambs	Number	As Percent of Ewes One Year and Older <sup>2</sup>
		Ewes	Rams			
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Percent</i>
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	330	108
2000	360	310	11	39	330	106
2001	350	300	11	39	305	102
2002	320	275	9	36	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Lamb crop defined as lambs marked, docked, or branded.

<sup>2</sup> 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.

<sup>3</sup> Estimates published with January 1, 2003 sheep inventory.

## Market Sheep and Lambs: Inventory by Weight Group, Utah, January 1, 1996-2002

Year	Market Lambs					Market Sheep	Total Market Sheep and Lambs
	Under 65 Lbs	65-84 Lbs	85-105 Lbs	Over 105 Lbs	Total		
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>
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
2000	3	2	10	20	35	5	40
2001	3	2	14	16	35	5	40
2002	1	3	15	23	42	3	45

## Sheep and Lambs: Balance Sheet, Utah, 1994-2001

Year	Inventory Beginning of Year <sup>1</sup>	Lamb Crop	Inshipments	Marketings <sup>2</sup>		Farm Slaughter <sup>3</sup>	Deaths		Inventory End of Year <sup>1</sup>
				Sheep	Lambs		Sheep	Lambs	
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>
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
1999	400	330	9	24	266	5	18	26	400
2000	400	330	9	32	269	5	18	25	390
2001	390	305	7	51	241	5	17	23	400

<sup>1</sup> Starting in 1994, beginning and end of year inventories includes new crop lambs.

<sup>2</sup> Includes custom slaughter for use on farms where produced, and State outshipments, but excludes interfarm sales within the State.

<sup>3</sup> Excludes custom slaughter for farmers at commercial establishments.

## Sheep & Lambs: Production, Marketings & Income 1994-2001

Year	Production <sup>1</sup> <i>1,000 Pounds</i>	Marketings <sup>2</sup> <i>1,000 Pounds</i>	Price per 100 Pounds		Value of Production <i>1,000 Dollars</i>	Cash Receipts <sup>3</sup> <i>1,000 Dollars</i>	Value of Home Consumption <i>1,000 Dollars</i>	Gross Income <i>1,000 Dollars</i>
			Sheep <i>Dollars</i>	Lambs <i>Dollars</i>				
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	18,538	19,395	521	19,916
1999	27,545	27,360	24.70	73.80	18,337	18,424	561	18,985
2000	27,300	28,830	28.20	82.90	20,892	21,274	631	21,905
2001	25,350	29,160	27.10	61.00	14,345	15,194	472	15,666

<sup>1</sup> Adjustments made for changes in inventory and for inshipments.

<sup>2</sup> Excludes custom slaughter for use on farms where produced and interfarm sales within the State.

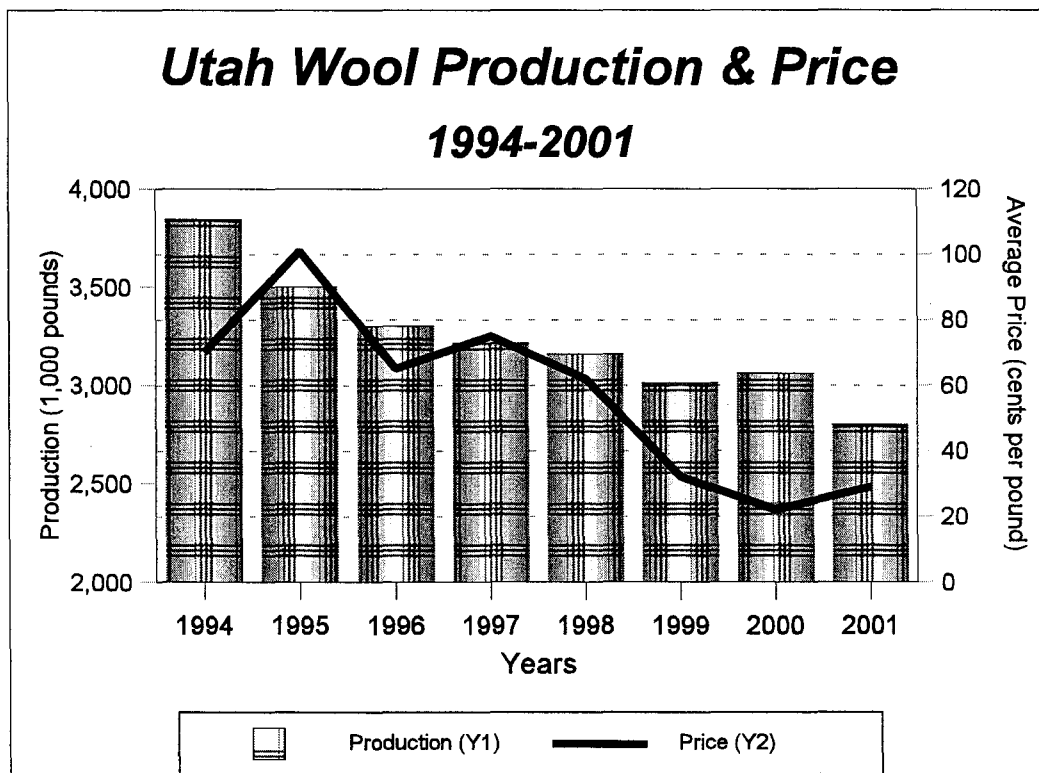
<sup>3</sup> Receipt from marketings and sale of farm slaughter.

## Wool: Production and Value, Utah, 1994-2001

Year	Sheep & Lambs Shorn <sup>1</sup> <i>1,000 Head</i>	Weight per Fleece <i>Pounds</i>	Shorn Wool Production <i>1,000 Pounds</i>	Average Price per Pound <i>Dollars</i>	Value <sup>2</sup> <i>1,000 Dollars</i>
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
1999	320	9.4	3,010	0.32	963
2000	320	9.6	3,060	0.22	673
2001	295	9.5	2,800	0.29	812

<sup>1</sup> Includes shearing at commercial feeding yards.

<sup>2</sup> Production multiplied by annual average price.



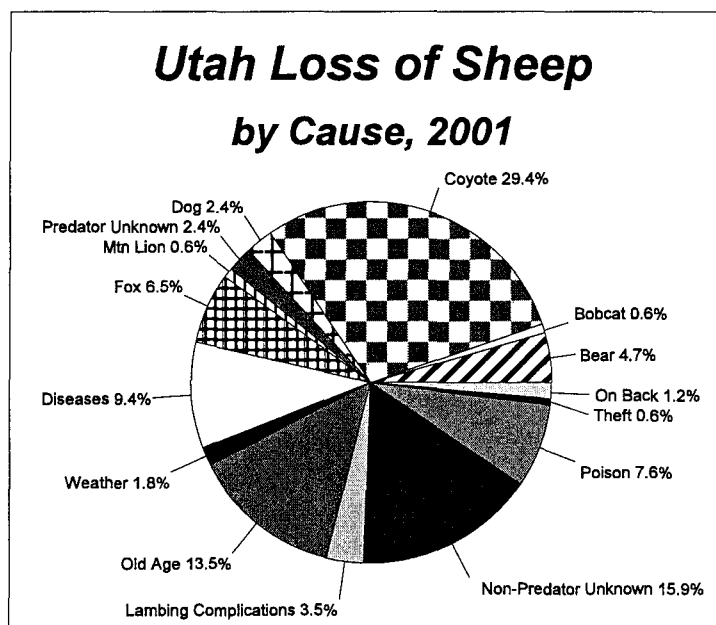
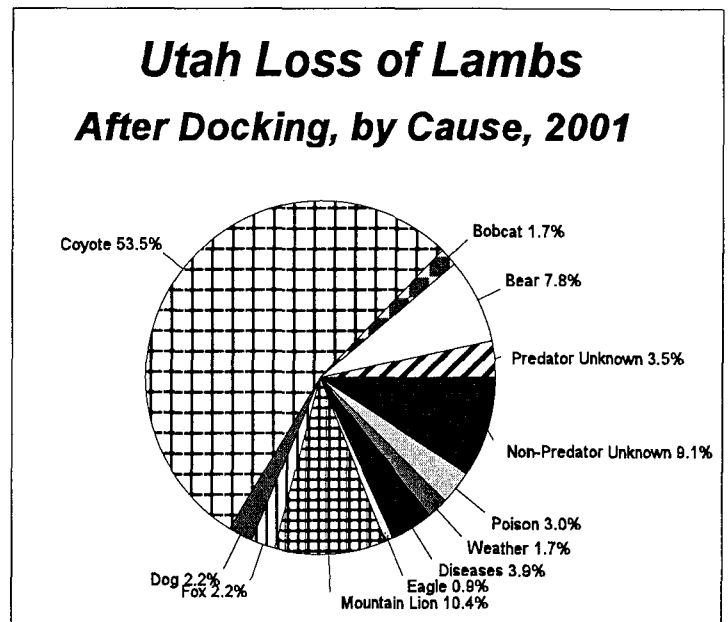
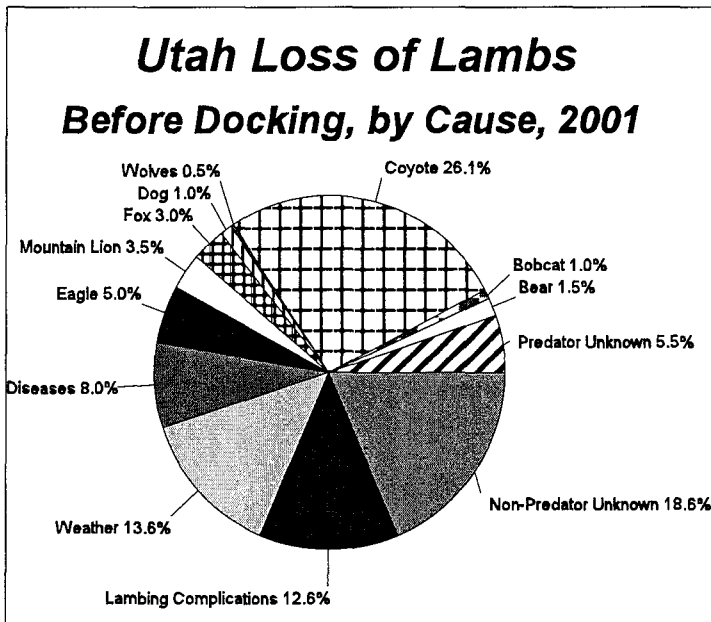
# Sheep and Lamb Losses by Cause

Utah farmers and ranchers lost 60,000 sheep and lambs to all causes in 2001. This was valued at \$3.34 million.

Lambs lost before docking totaled 20,000, lambs lost after docking totaled 23,000, and sheep one year old and older lost totaled 17,000. The largest single cause of death in lambs before docking from predators was from coyotes killing 5,200. This accounted for 26 percent of all lambs lost before docking. Coyotes also accounted for the largest number of lambs lost after docking at 12,300 which was 53.5 percent of the after docking loss.

Sheep one year old and older losses to coyotes, at 5,000, was the single largest cause, accounting for 29.4 percent. Total losses to coyotes equaled 22,500 which was 37.5 percent of all losses to sheep and lambs in the state.

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.



## Losses of Sheep and Lambs Combined, by Cause: Utah, 1996-2001 <sup>1</sup>

Cause of Loss	1996	1997	1998	1999	2000	2001
<i>Number of Head</i>						
Bear	3,900	2,600	2,700	2,600	2,300	2,900
Bobcat	600	300	700	800	700	700
Coyote	31,500	24,600	21,700	21,100	21,700	22,500
Dog	1,800	2,300	2,100	2,300	2,800	1,100
Fox	600	1,000	900	800	1,300	1,200
Mountain Lion	12,500	7,000	6,200	4,600	6,400	4,200
Ravens/Wolves <sup>2</sup>	0	0	0	100	100	100
Eagle	1,600	400	1,100	800	1,000	1,200
Other/Unknown	1,200	3,900	4,100	3,200	1,200	2,300
<b>Total Predators</b>	<b>53,700</b>	<b>42,100</b>	<b>39,500</b>	<b>36,300</b>	<b>37,500</b>	<b>36,200</b>
Diseases	7,000	5,800	5,300	7,400	3,400	4,100
Weather Conditions	5,200	5,800	6,900	4,200	4,400	3,400
Lambing Complications	7,200	5,200	5,100	4,200	3,900	3,100
Old Age	3,800	2,400	2,700	2,800	2,000	2,300
On Back	800	900	700	700	400	200
Poison	3,500	2,600	2,300	1,200	3,800	2,100
Theft	1,400	400	200	300	200	100
Other/Unknown	12,900	11,300	10,700	8,400	7,400	8,500
<b>Total Non-Predators</b>	<b>41,800</b>	<b>34,400</b>	<b>33,900</b>	<b>29,200</b>	<b>25,500</b>	<b>23,800</b>
<b>Total Losses</b>	<b>95,500</b>	<b>76,500</b>	<b>73,400</b>	<b>65,500</b>	<b>63,000</b>	<b>60,000</b>
<i>Percent of Total by Cause</i>						
Bear	4.1	3.4	3.7	4.0	3.7	4.8
Bobcat	0.6	0.4	1.0	1.2	1.1	1.2
Coyote	33.0	32.2	29.6	32.2	34.4	37.5
Dog	1.9	3.0	2.9	3.5	4.4	1.8
Fox	0.6	1.3	1.2	1.2	2.1	7.0
Mountain Lion	13.1	9.2	8.4	7.0	10.2	2.0
Ravens/Wolves <sup>2</sup>	0.0	0.0	0.0	0.2	0.2	0.2
Eagle	1.7	0.5	1.5	1.2	1.6	2.0
Other/Unknown	1.3	5.1	5.6	4.9	1.9	3.8
<b>Total Predators</b>	<b>56.2</b>	<b>55.0</b>	<b>53.8</b>	<b>55.4</b>	<b>59.5</b>	<b>60.3</b>
Diseases	7.3	7.6	7.2	11.3	5.4	6.8
Weather Conditions	5.4	7.6	9.4	6.4	7.0	5.7
Lambing Complications	7.5	6.8	6.9	6.4	6.2	5.2
Old Age	4.0	3.1	3.7	4.3	3.2	3.8
On Back	0.8	1.2	1.0	1.1	0.6	0.3
Poison	3.7	3.4	3.1	1.8	6.0	3.5
Theft	1.5	0.5	0.3	0.5	0.3	0.2
Other/Unknown	13.5	14.8	14.6	12.8	11.7	14.2
<b>Total Non-Predators</b>	<b>43.8</b>	<b>45.0</b>	<b>46.2</b>	<b>44.6</b>	<b>40.5</b>	<b>39.7</b>
<b>Total Losses</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>Dollar Value of Losses by Cause (000)</i>						
Bear	375	211	189	176	145	160
Bobcat	56	22	39	42	37	35
Coyote	2,921	1,656	1,295	1,181	1,204	1,192
Dog	173	188	174	134	178	65
Fox	54	52	42	36	65	56
Mountain Lion	1,178	490	403	278	394	230
Ravens/Wolves <sup>2</sup>	0	0	0	5	5	4
Eagle	144	21	51	37	47	52
Other/Unknown	111	259	260	203	66	117
<b>Total Predators</b>	<b>5,012</b>	<b>2,899</b>	<b>2,453</b>	<b>2,092</b>	<b>2,141</b>	<b>1,911</b>
Diseases	654	409	348	470	216	247
Weather Conditions	492	339	384	220	220	160
Lambing Complications	687	396	364	277	244	160
Old Age	399	276	297	288	188	201
On Back	81	97	71	61	38	17
Poison	347	216	189	100	334	148
Theft	141	28	22	19	14	9
Other/Unknown	1,220	826	682	493	403	486
<b>Total Non-Predators</b>	<b>4,021</b>	<b>2,587</b>	<b>2,357</b>	<b>1,928</b>	<b>1,657</b>	<b>1,428</b>
<b>Total Losses</b>	<b>9,033</b>	<b>5,486</b>	<b>4,810</b>	<b>4,020</b>	<b>3,798</b>	<b>3,339</b>

<sup>1/</sup> Lamb losses include both before and after docking losses. <sup>2/</sup> 1999 is Ravens; 2000 and 2001 are Wolves.

## Losses of Sheep by Cause: Utah, 1996-2001

Cause of Loss	1996	1997	1998	1999	2000	2001
<i>Number of Head</i>						
Bear	1,600	1,200	1,000	1,000	800	800
Bobcat	100	100	100	100	100	100
Coyote	5,700	6,000	4,500	3,800	4,000	5,000
Dog	700	1,100	1,200	500	1,000	400
Fox	0	0	0	0	100	1,100
Mountain Lion	3,500	2,000	1,800	1,200	2,000	100
Ravens/Wolves	0	0	0	0	0	0
Eagle	0	0	0	0	0	0
Other/Unknown	200	900	1,100	1,000	200	400
<b>Total Predators</b>	<b>11,800</b>	<b>11,300</b>	<b>9,700</b>	<b>7,600</b>	<b>8,200</b>	<b>7,900</b>
Diseases	1,600	1,700	1,600	2,300	1,200	1,600
Weather Conditions	1,600	600	1,000	500	300	300
Lambing Complications	2,600	2,000	2,000	1,500	1,300	600
Old Age	3,800	2,400	2,700	2,800	2,000	2,300
On Back	600	800	600	500	400	200
Poison	2,100	1,300	1,300	800	3,300	1,300
Theft	1,000	100	200	100	100	100
Other/Unknown	3,900	3,800	2,900	1,900	1,200	2,700
<b>Total Non-Predators</b>	<b>17,200</b>	<b>12,700</b>	<b>12,300</b>	<b>10,400</b>	<b>9,800</b>	<b>9,100</b>
<b>Total Losses</b>	<b>29,000</b>	<b>24,000</b>	<b>22,000</b>	<b>18,000</b>	<b>18,000</b>	<b>17,000</b>
<i>Percent of Total by Cause</i>						
Bear	5.5	5.0	4.5	5.6	4.4	4.7
Bobcat	0.3	0.4	0.5	0.6	0.6	0.6
Coyote	19.7	25.0	20.5	21.1	22.2	29.4
Dog	2.4	4.6	5.5	2.8	5.6	2.4
Fox	0.0	0.0	0.0	0.0	0.6	6.5
Mountain Lion	12.1	8.3	8.2	6.7	0.0	0.6
Ravens/Wolves	0.0	0.0	0.0	0.0	0.0	0.0
Eagle	0.0	0.0	0.0	0.0	0.0	0.0
Other/Unknown	0.7	3.8	5.0	5.6	1.1	2.4
<b>Total Predators</b>	<b>40.7</b>	<b>47.1</b>	<b>44.1</b>	<b>42.2</b>	<b>45.6</b>	<b>46.5</b>
Diseases	5.5	7.1	7.3	12.8	6.7	9.4
Weather Conditions	5.5	2.5	4.5	2.8	1.7	1.8
Lambing Complications	9.0	8.3	9.1	8.3	7.2	3.5
Old Age	13.1	10.0	12.3	15.6	11.1	13.5
On Back	2.1	3.3	2.7	2.8	2.2	1.2
Poison	7.2	5.4	5.9	4.4	18.3	7.6
Theft	3.4	0.4	0.9	0.6	0.6	0.6
Other/Unknown	13.4	15.8	13.2	10.6	6.7	15.9
<b>Total Non-Predators</b>	<b>59.3</b>	<b>52.9</b>	<b>55.9</b>	<b>57.8</b>	<b>54.4</b>	<b>53.5</b>
<b>Total Losses</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>Dollar Value of Losses by Cause (000)</i>						
Bear	168	138	110	103	75	70
Bobcat	11	12	11	10	9	9
Coyote	599	690	495	391	377	436
Dog	74	126	132	52	94	35
Fox	0	0	0	0	9	9
Mountain Lion	368	230	198	123	188	96
Ravens/Wolves	0	0	0	0	0	0
Eagle	0	0	0	0	0	0
Other/Unknown	21	103	121	103	19	35
<b>Total Predators</b>	<b>1,241</b>	<b>1,299</b>	<b>1,067</b>	<b>782</b>	<b>771</b>	<b>689</b>
Diseases	168	196	176	237	113	140
Weather Conditions	168	69	110	51	28	26
Lambing Complications	273	230	220	154	122	52
Old Age	399	276	297	288	188	201
On Back	63	92	66	52	38	17
Poison	221	149	143	82	311	113
Theft	105	12	22	10	9	9
Other/Unknown	410	437	319	196	113	235
<b>Total Non-Predators</b>	<b>1,807</b>	<b>1,461</b>	<b>1,353</b>	<b>1,070</b>	<b>922</b>	<b>794</b>
<b>Total Losses</b>	<b>3,048</b>	<b>2,760</b>	<b>2,420</b>	<b>1,852</b>	<b>1,693</b>	<b>1,483</b>

## Losses of All Lambs by Cause: Utah, 1996-2001 <sup>1</sup>

Cause of Loss	1996	1997	1998	1999	2000	2001
<i>Number of Head</i>						
Bear	2,300	1,400	1,700	1,600	1,500	2,100
Bobcat	500	200	600	700	600	600
Coyote	25,800	18,600	17,200	17,300	17,700	17,500
Dog	1,100	1,200	900	1,800	1,800	700
Fox	600	1,000	900	800	1,200	3,100
Mountain Lion	9,000	5,000	4,400	3,400	4,400	1,100
Ravens/Wolves <sup>2</sup>	0	0	0	100	100	100
Eagle	1,600	400	1,100	800	1,000	1,200
Other/Unknown	1,000	3,000	3,000	2,200	1,000	1,900
<b>Total Predators</b>	<b>41,900</b>	<b>30,800</b>	<b>29,800</b>	<b>28,700</b>	<b>29,300</b>	<b>28,300</b>
Diseases	5,400	4,100	3,700	5,100	2,200	2,500
Weather Conditions	3,600	5,200	5,900	3,700	4,100	3,100
Lambing Complications	4,600	3,200	3,100	2,700	2,600	2,500
Old Age	0	0	0	0	0	0
On Back	200	100	100	200	0	0
Poison	1,400	1,300	1,000	400	500	800
Theft	400	300	0	200	100	0
Other/Unknown	9,000	7,500	7,800	6,500	6,200	5,800
<b>Total Non-Predators</b>	<b>24,600</b>	<b>21,700</b>	<b>21,600</b>	<b>18,800</b>	<b>15,700</b>	<b>14,700</b>
<b>Total Losses</b>	<b>66,500</b>	<b>52,500</b>	<b>51,400</b>	<b>47,500</b>	<b>45,000</b>	<b>43,000</b>
<i>Percent of Total by Cause</i>						
Bear	3.5	2.7	3.3	3.4	3.3	4.9
Bobcat	0.8	0.4	1.2	1.5	1.3	1.4
Coyote	38.8	35.4	33.5	36.4	39.3	40.7
Dog	1.7	2.3	1.8	3.8	4.0	1.6
Fox	0.9	1.9	1.8	1.7	2.7	7.2
Mountain Lion	13.5	9.5	8.6	7.2	9.8	2.6
Ravens/Wolves <sup>2</sup>	0.0	0.0	0.0	0.2	0.4	0.2
Eagle	2.4	0.8	2.1	1.7	2.2	2.8
Other/Unknown	1.5	5.7	5.8	4.6	2.2	4.4
<b>Total Predators</b>	<b>63.0</b>	<b>58.7</b>	<b>58.0</b>	<b>60.4</b>	<b>65.1</b>	<b>65.8</b>
Diseases	8.1	7.8	7.2	10.7	4.9	5.8
Weather Conditions	5.4	9.9	11.5	7.8	9.1	7.2
Lambing Complications	6.9	6.1	6.0	5.7	5.8	5.8
Old Age	0.0	0.0	0.0	0.0	0.0	0.0
On Back	0.3	0.2	0.2	0.4	0.0	0.0
Poison	2.1	2.5	1.9	0.8	1.1	1,860.5
Theft	0.6	0.6	0.0	0.4	0.2	0.0
Other/Unknown	13.5	14.3	15.2	13.7	13.8	13.5
<b>Total Non-Predators</b>	<b>37.0</b>	<b>41.3</b>	<b>42.0</b>	<b>39.6</b>	<b>34.9</b>	<b>34.2</b>
<b>Total Losses</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>Dollar Value of Losses by Cause (000)</i>						
Bear	207	73	79	73	70	91
Bobcat	45	10	28	32	28	26
Coyote	2,322	966	800	790	827	755
Dog	99	62	42	82	84	30
Fox	54	52	42	36	56	134
Mountain Lion	810	260	205	155	206	47
Ravens/Wolves <sup>2</sup>	0	0	0	5	10	4
Eagle	144	21	51	37	47	52
Other/Unknown	90	156	139	100	47	82
<b>Total Predators</b>	<b>3,771</b>	<b>1,600</b>	<b>1,386</b>	<b>1,310</b>	<b>1,370</b>	<b>1,222</b>
Diseases	486	213	172	233	103	108
Weather Conditions	324	270	274	169	192	134
Lambing Complications	414	166	144	123	122	108
Old Age	0	0	0	0	0	0
On Back	18	5	5	9	0	0
Poison	126	67	46	18	23	35
Theft	36	16	0	9	5	0
Other/Unknown	810	389	363	297	290	250
<b>Total Non-Predators</b>	<b>2,214</b>	<b>1,126</b>	<b>1,004</b>	<b>858</b>	<b>735</b>	<b>635</b>
<b>Total Losses</b>	<b>5,985</b>	<b>2,726</b>	<b>2,390</b>	<b>2,168</b>	<b>2,105</b>	<b>1,856</b>

<sup>1</sup> Lamb losses include both before and after docking losses. <sup>2</sup> 1999 is Ravens; 2000 and 2001 are Wolves.

### Losses of Lambs Before Docking: Utah, 1996-2001

Cause of Loss	1996	1997	1998	1999	2000	2001
	<i>Number of Head</i>					
Bear	100	100	100	100	100	300
Bobcat	400	100	200	200	300	200
Coyote	6,500	5,000	4,000	5,300	5,400	5,200
Dog	300	500	300	600	200	200
Fox	500	500	400	600	700	600
Mountain Lion	1,300	1,100	800	500	1,100	700
Ravens/Wolves <sup>1</sup>	0	0	0	100	100	100
Eagle	1,300	200	600	500	800	1,000
Other/Unknown	300	1,600	1,200	1,000	500	1,100
<b>Total Predators</b>	<b>10,700</b>	<b>9,100</b>	<b>7,600</b>	<b>8,900</b>	<b>9,600</b>	<b>9,400</b>
Diseases	3,600	2,200	2,300	3,000	800	1,600
Weather Conditions	2,700	4,100	5,200	3,200	3,000	2,700
Lambing Complications	4,600	3,200	3,100	2,700	2,600	2,500
Old Age	0	0	0	0	0	0
On Back	0	0	0	0	0	0
Poison	500	100	100	0	0	100
Theft	100	0	0	0	0	0
Other/Unknown	3,300	3,800	4,100	3,700	4,000	3,700
<b>Total Non-Predators</b>	<b>14,800</b>	<b>13,400</b>	<b>14,800</b>	<b>12,600</b>	<b>10,400</b>	<b>10,600</b>
<b>Total Losses</b>	<b>25,500</b>	<b>22,500</b>	<b>22,400</b>	<b>21,500</b>	<b>20,000</b>	<b>20,000</b>

<sup>1</sup> 1999 is Ravens; 2000 & 2001 are Wolves.

### Losses of Lambs After Docking: Utah, 1996-2001

Cause of Loss	1996	1997	1998	1999	2000	2001
	<i>Number of Head</i>					
Bear	2,200	1,300	1,600	1,500	1,400	1,800
Bobcat	100	100	400	500	300	400
Coyote	19,300	13,600	13,200	12,000	12,300	12,300
Dog	800	700	600	1,200	1,200	500
Fox	100	500	500	200	500	500
Mountain Lion	7,700	3,900	3,600	2,900	3,300	2,400
Ravens/Wolves	0	0	0	0	0	0
Eagle	300	200	500	300	200	200
Other/Unknown	700	1,400	1,800	1,200	500	800
<b>Total Predators</b>	<b>31,200</b>	<b>21,700</b>	<b>22,200</b>	<b>19,800</b>	<b>19,700</b>	<b>18,900</b>
Diseases	1,800	1,900	1,400	2,100	1,400	900
Weather Conditions	900	1,100	700	500	1,100	400
Lambing Complications	0	0	0	0	0	0
Old Age	0	0	0	0	0	0
On Back	200	100	100	200	0	0
Poison	900	1,200	900	400	500	700
Theft	300	300	0	200	100	0
Other/Unknown	5,700	3,700	3,700	2,800	2,200	2,100
<b>Total Non-Predators</b>	<b>9,800</b>	<b>8,300</b>	<b>6,800</b>	<b>6,200</b>	<b>5,300</b>	<b>4,100</b>
<b>Total Losses</b>	<b>41,000</b>	<b>30,000</b>	<b>29,000</b>	<b>26,000</b>	<b>25,000</b>	<b>23,000</b>



# Hogs and Pigs

The Utah hog and pig inventory on December 1, 2001 was 610,000 head, 11 percent above the December 1, 2000 level. This is the fifth consecutive new record high inventory in Utah. Prior to 1997, the old record high was 196,000 head in 1944.

The total pig crop for the year was 1,051,000 head, 7.4 percent above 2000. A total of 117,000 sows farrowed during 2001, up 6.4 percent from 2000. The number of farms with one or more hogs or pigs in 2001 totaled 500, unchanged from 2000.

The December 1, 2001 average value per head of Utah's hogs and pigs was \$84.00, up \$1.00 from December 1, 2000. The total inventory value was \$51.2 million, up 12 percent from a year earlier.

Cash receipts during 2001 totaled \$106.3 million, up 8.5 percent from 2000. Marketings during 2001 were at 222.0 million pounds, 3.9 percent above the previous year. Hog prices averaged \$47.90 per cwt, up \$2.00 from the 2000 average price.

## Hogs and Pigs: Farms, Inventory and Value, Utah, 1994-2001

Year	Farms with Hogs	Hogs and Pigs on Farms December 1			
		Number		Value	
		Number	Per Head	Total	Total
	<i>Number</i>	<i>1,000 Head</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	
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	48.00	18,240	
1999	500	550	77.00	40,040	
2000	500	550	83.00	45,650	
2001	500	610	84.00	51,240	

## Hogs and Pigs: Inventory by Class and Weight Group, Utah, December 1, 1994-2001

Year	Total	Breeding	Market	Market Hogs & Pigs by Weight Group			
				Under 60 lbs	60-119 Lbs	120-179 Lbs	180 Lbs & Over
				<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>
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
1999	550	70	450	180	85	75	110
2000	550	80	470	190	110	100	70
2001	610	70	540	230	120	120	70

## Hogs and Pigs: Balance Sheet, Utah, 1994-2001

Year	Inventory Beginning of year <sup>1</sup>	Annual Pig Crop	Inshipments	Marketings <sup>2</sup>	Farm Slaughter <sup>3</sup>	Deaths	Inventory End of Year <sup>1</sup>
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>
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
1999	380	836	16	640	1	71	550
2000	550	979	1	891	1	58	550
2001	550	1,051	1	926	1	65	610

<sup>1</sup> Hogs and pigs inventory is as of Dec, 1.

<sup>2</sup> Includes custom slaughter for use on farm where produced, State out-shipments, but excludes interfarm sales within the State.

<sup>3</sup> Excludes custom slaughter for farmers at commercial establishments.

## Hogs and Pigs: Production, Marketings and Income, Utah, 1994-2001

Year	Production <sup>1</sup>	Marketings <sup>2</sup>	Price per 100 Lbs	Value of Production	Cash Receipts <sup>3</sup>	Value of Home Consumption	Gross Income
	<i>1,000 Pounds</i>	<i>1,000 Pounds</i>	<i>Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>	<i>1,000 Dollars</i>
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
1999	170,690	153,360	35.30	59,936	54,136	169	54,305
2000	214,591	213,600	45.90	98,404	98,042	221	98,263
2001	225,290	222,000	47.90	107,820	106,338	230	106,568

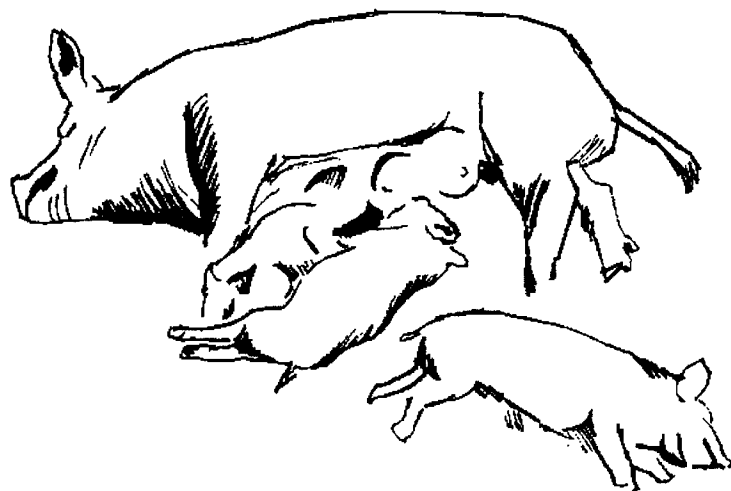
<sup>1</sup> Adjustments made for inshipments and changes in inventories.

<sup>2</sup> Excludes interfarm sales within the State and custom slaughter for use on farms where produced.

<sup>3</sup> Includes receipts from marketings and from sales of farm slaughtered meat.

## Pig Crop: Sows Farrowing and Pigs Saved, Utah, 1994-2001

Year	Sows Farrowing	Pigs per Litter	Pigs Saved
	<i>1,000 Head</i>	<i>Head</i>	<i>1,000 Head</i>
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
1999	97.0	8.62	836
2000	110.0	8.90	979
2001	117.0	8.98	1,051



# Chickens and Eggs

The value of eggs produced in Utah during 2001 totaled \$31.3 million, 21 percent above the 2000 level. Total production, at 853 million eggs, was up 20 percent from 2000. The average price of eggs was 44.0 cents per dozen, 0.6 cents above 2000. The average number of layers during 2001 was 3.2 million, up 20 percent from the 2000 level. Eggs produced per layer was 264 compared

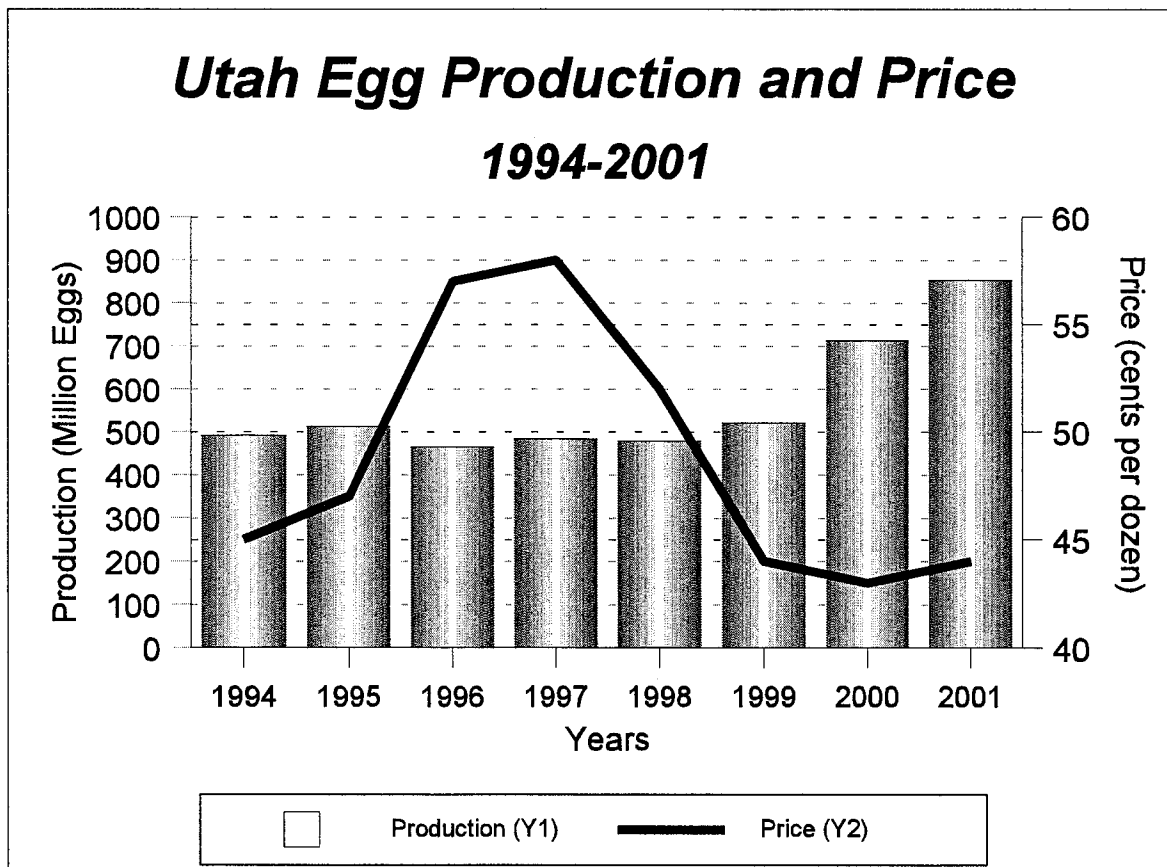
with 263 for 2000. Pounds of chicken sold (primarily cull laying hens) at 5.2 million increased 21 percent from 2000. The average price per pound of chickens sold was 0.1 cent compared with 2.0 cents in 2000. The value of chickens sold in 2001 was \$5,000, down 94 percent from 2000.

**Layers & Eggs: Number, Production and Value of Production, Utah 1994-2001 <sup>1</sup>**

Year	Average Number of Layers <i>1,000 Head</i>	Eggs per Layer <sup>2</sup> <i>Number</i>	Total Egg Production <i>Millions</i>	Price per Dozen <i>Dollars</i>	Value of Production <i>1,000 Dollars</i>
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
1999	1,913	272	521	0.443	19,234
2000	2,704	263	712	0.434	25,751
2001	3,232	264	853	0.440	31,277

<sup>1</sup> Estimates cover the 12 month period, December 1 previous year, through November 30.

<sup>2</sup> Total egg production divided by average number of layers on hand.



### Chicken Inventory: Number and Value, Utah, December 1, 1994-2002 <sup>1</sup>

Year	Layers		Pullets not of laying age			Other Chickens	Total Chickens	Value	
	Layers one year old and older	Layers 20 weeks old but less than one year	Total	Pullets 13 weeks old and older but less than 20 weeks	Pullet Chicks and Pullets under 13 weeks of age		Number		
								Average	Total
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>Dollars</i>	<i>1,000 Dollars</i>
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		2,138	1.60	3,421
1998	1,000	830	1,830	268	98		2,196	1.60	3,514
1999	974	1,320	2,294	245	345		2,884	1.40	4,038
2000	1,832	1,343	3,175	261	390	2	3,828	1.80	6,890
2001	1,604	1,668	3,272	151	350	2	3,775	1.30	4,908

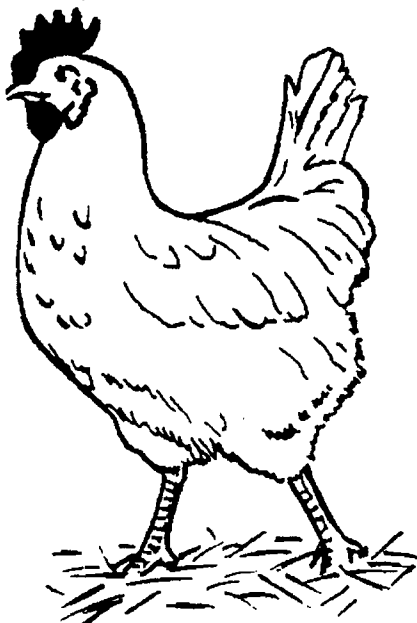
<sup>1</sup> Excludes commercial broilers.

### Chicken: Lost, Sold, and Value of Sales, Utah, 1994-2002 <sup>1</sup>

Year	Number Lost <sup>2</sup>	Number Sold	Pounds Sold	Price per Pound	Value of Sales
	<i>1,000 Head</i>	<i>1,000 Head</i>	<i>1,000 Pounds</i>	<i>Dollars</i>	<i>1,000 Dollars</i>
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
1999	177	1,116	4,464	0.033	147
2000	198	1,088	4,352	0.020	87
2001	272	1,499	5,247	0.001	5

<sup>1</sup> Estimates exclude broilers and cover the 12 month period December 1 previous year through November 30.

<sup>2</sup> Includes death and other losses during the 12 month period.



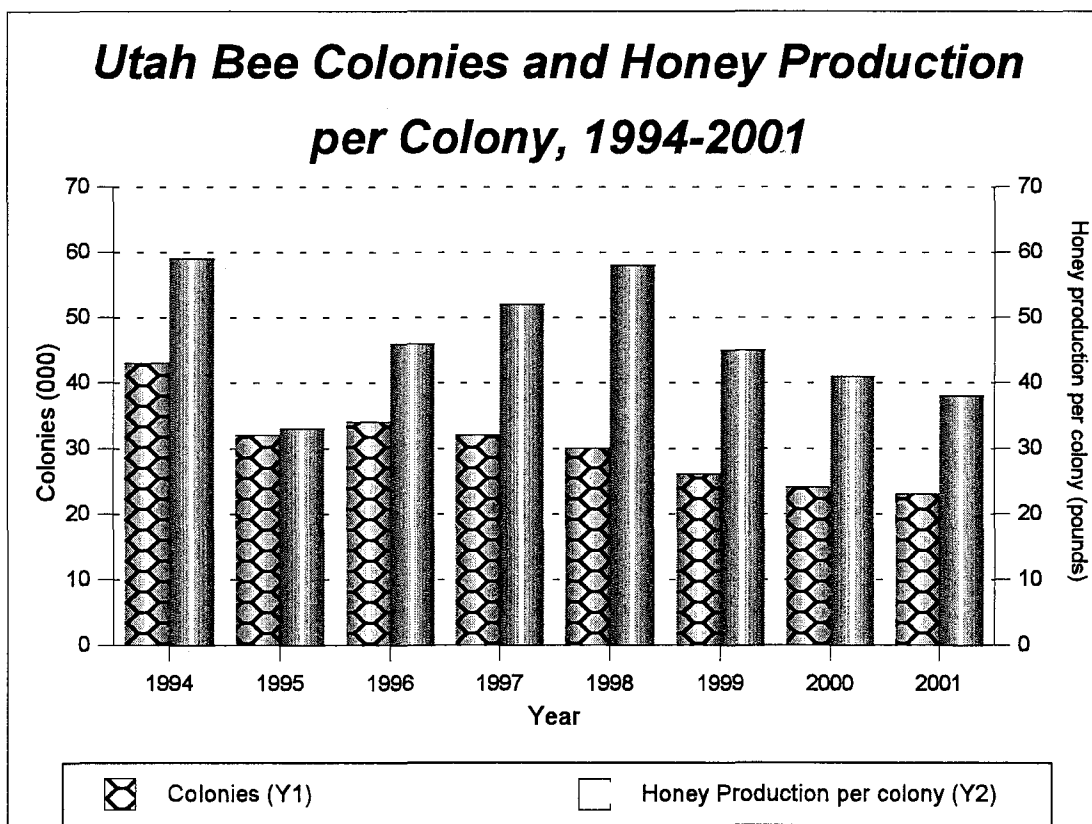
# Bees and Honey

Honey production in Utah from producers with five or more colonies totaled 874,000 pounds during 2001, down 11 percent from the 2000 level. The number of colonies at 23,000 was down 1,000 from the previous year. Production per colony, at 38 pounds, was 3 pounds below the level of 2000. The price received per pound of honey averaged 65 cents, up 5 cents from 2000. The total value

of the honey produced in 2001 was \$568,000, down 3.7 percent from 2000. **Several Utah apiaries kept their bees in other States during part of the year. Honey produced in other States was counted in that state's production and not included in the Utah production.**

**Honey: Colonies of Bees, Production, & Value, Utah 1994-2001**

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
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
1999	26	45	1,170	68	796
2000	24	41	984	60	590
2001	23	38	874	65	568



# Mink

Mink pelt production in Utah during 2001 totaled 610,000 pelts, up 20,000 pelts from 2000. The number of females bred to produce kits in 2001 was 145,000, down 11 percent from the previous year. Utah ranked second in the nation in mink pelt production in 2001.

Mahogany, at 233,500, was the most common type pelt

produced followed by Standard with 205,000. Demi-Buff was third with 60,000 pelts produced. In 2001 there were 80 mink farms in Utah, 10 farms fewer than 2000.

Leading mink producing counties, Utah and Morgan, produced over 65 percent of all pelts taken. Other leading counties were Summit, Cache, and Salt Lake.

## Mink: Number of Ranches, Pelts Produced, Females Bred, Average Price & Value, Utah and United States, 1994-2001

Year	Utah			United States				
	Ranches Producing Pelts	Pelts Produced	Females Bred	Ranches Producing Pelts	Pelts Produced	Females Bred	Average Marketing Price	Value of Pelts
	<i>Number</i>	<i>1,000</i>	<i>1,000</i>	<i>Number</i>	<i>1,000</i>	<i>1,000</i>	<i>Dollars</i>	<i>Million Dollars</i>
1994	130	530	165	484	2,623.2	726.2	33.00	86.6
1995	130	570	162	478	2,803.1	727.9	53.10	148.8
1996	130	585	167	449	2,783.2	703.1	35.30	98.2
1997	125	670	185	452	2,993.3	749.7	33.10	99.1
1998	115	675	175	439	2,938.2	733.3	24.80	72.9
1999	110	650	156	398	2,812.5	672.7	33.70	94.8
2000	90	590	163	350	2,666.1	664.9	34.00	90.6
2001	80	610	145	324	2,565.3	629.5	33.50	85.9

## Mink: Pelts Produced in 2001 and Females Bred for 2002, by Type, Utah and United States

Type	Pelts Produced 2001		Females Bred To Produce Kits 2002	
	Utah	United States	Utah	United States
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Standard	205,000	947,400	56,200	237,000
Ranch Wild		100,700		25,500
Demi-Buff <sup>1</sup>	60,000	129,000	6,900	15,000
Pastel		41,800		8,800
Pale Brown		1,900		600
Sapphire	15,500	108,300	5,500	38,500
Gunmetal	40,000	472,000	10,000	119,100
Mahogany	233,500	580,000	57,200	125,300
Pearl		73,900		18,100
Lavender Hope		3,500	2,500	4,500
Pink		800		200
Violet Type		21,400		6,300
White		73,700		17,400
Miscellaneous		10,900		4,200
Total	610,000	2,565,300	149,000	620,500

<sup>1</sup> Demi-buff includes crossed of dark brown, violet, pastel, standard, pearl or others.

<sup>2</sup> Not published to avoid disclosure of individual operations.

# Trout

Total value of Utah trout sales in 2001 totaled 1.3 million dollars, down 5.2 percent from 2000. On January 1, 2002, there were 26 trout operations. Trout losses totaled

183,000 fish during 2001, over twice as much as 2000. Predators accounted for 65 percent of the losses.

## Trout: Number of Operations, Total Value of Fish Sold, and Foodsize Sales, Utah, 1996-2001

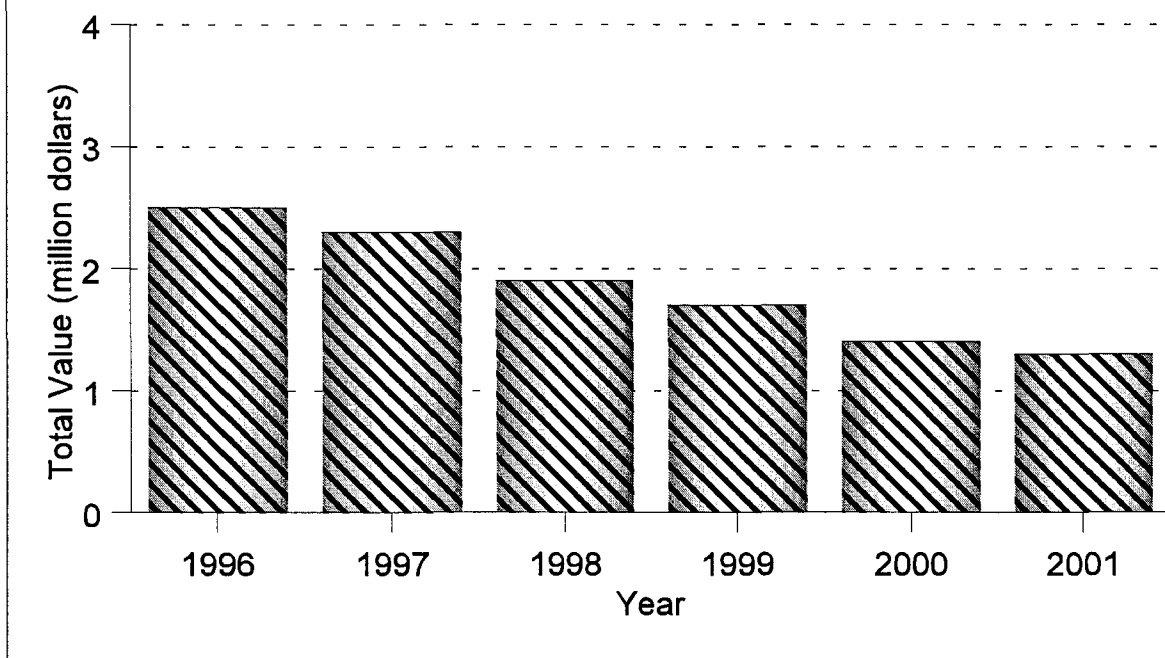
Year	Total Number of Operations	Total Value of Fish Sold	Foodsize (12 inches or longer)			
			Number of Fish	Live Weight	Sales	
					Total	Average per pound
	<i>Number</i>	<i>1,000 Dollars</i>	<i>Thousands</i>	<i>Thousands</i>	<i>1,000 Dollars</i>	<i>Dollars</i>
1996	18	2,489	1,144	1,205	2,077	1.72
1997	17	2,325	556	871	1,816	2.08
1998	17	1,871	420	465	1,353	2.91
1999	15	1,697	740	656	1,220	1.86
2000	25	1,396	400	464	858	1.85
2001	26	1,324	720	705	1,114	1.58

## Trout: Stocker Sales and Fingerling Sales, Utah, 1996-2001

Year	Stocker ( 6 inches - 12 inches)				Fingerlings (1 inch - 6 inches)			
	Number of Fish	Live Weight	Sales		Number of Fish	Live Weight	Sales	
			Total	Average per pound			Total	Average per 1,000 Fish/eggs <sup>1</sup>
	<i>1,000</i>	<i>1,000 Pounds</i>	<i>1,000 Dollars</i>	<i>Dollars</i>	<i>1,000</i>	<i>1,000 Pounds</i>	<i>1,000 Dollars</i>	<i>Dollars</i>
1996	336	231	402	1.74	31	2	10	5.00
1997	543	279	487	1.75	73	4	22	5.50
1998	490	310	505	1.63	100	5	13	132.00
1999	540	250	450	1.80	115	7	27	235.00
2000	460	231	467	2.02	630	38	71	113.00
2001	170	85	178	2.09	210	10	32	151.00

<sup>1</sup> Data prior to 1998 was "Average Value per Pound".

## Total Value of Utah Trout Sales 1996-2001



### Trout Lost, Intended for Sale: Number, Pounds, and Percent by Cause, Utah, 1996-2001

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	1,000	1,000	1,000	Percent	1,000	1,000	Percent	1,000	1,000	Percent
1996	336	143	20	1	6	12	11	4			
1997	249	97				36	22	14	45	20	18
1998	351	105	32	3	9	3	2	1	50	50	14
1999	75	33	10	2	13						
2000	68	17				3	2	4			
2001	183	27									

\* Not published to avoid disclosure of individual operations.

### Trout Lost, Intended for Sale: Number, Pounds, and Percent by Cause, Utah, 1996-2001 (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	1,000	Percent	1,000	1,000	Percent	1,000	1,000	Percent	1,000	1,000	Percent
1996							251	109	75	53	22	16
1997				8	3	3	133	43	53	27	9	11
1998	1	1		1	1		204	47	58	60	1	17
1999							57	22	76			
2000							48	10	71			
2001							119	13	65			

\* Not published to avoid disclosure of individual operations.



# 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 2001 through April 2002 quarterly survey periods peaked in April 2002 at 25,000 workers, followed by July 2001 with 24,000 workers and October 2001 with 21,000 workers. A low of 17,000 workers was reported in January 2002.

July 2001 was the busiest quarter with hired workers averaging 47.0 hours for the week, followed by October 2001 with 43.5 hours and April 2002 with 37.7 hours. January 2002 was the low with the hired labor working 33.2 hours for the week.

The average wage rates were generally higher during the January 2002 survey period where the average rate for all hired workers was \$9.15 per hour. Field workers received their highest wage rates in January 2002 at \$8.54 per hour and their lowest at \$7.36 per hour in July 2001. Livestock workers received their highest wages in April 2002 at \$8.58 per hour and their lowest in July 2001 at \$8.05 per hour.

## Farm Labor: Number Hired, Wage Rates, & Hours Worked, Mountain II Region, July 2001, October 2001, January 2002, and April 2002 <sup>1 2</sup>

	July 2001	October 2001	January 2002	April 2002
<b>Hired Workers (1,000 employees)</b>				
Hired workers	24	21	17	25
Expected to be employed				
150 days or more	19	13	13	20
149 days or less	5	8	4	5
<b>Hours Worked (per week)</b>				
Hours worked by hired workers	47.0	43.5	33.2	37.7
<b>Wage Rates (dollars per hours)</b>				
Wage rates for all hired workers <sup>2</sup>	8.28	8.08	9.15	8.95
Type of worker				
Field	7.36	7.65	8.54	8.06
Livestock	8.05	8.09	8.48	8.58
Field & Livestock combined	7.64	7.78	8.51	8.26

<sup>1</sup> Mountain II Region includes Colorado, Nevada, and Utah.

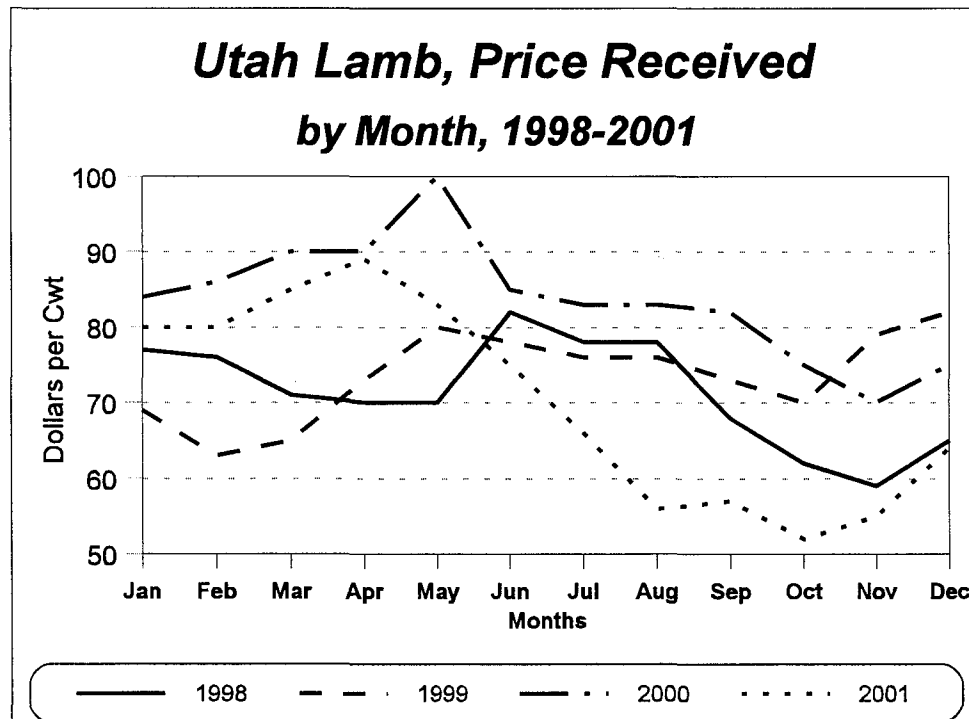
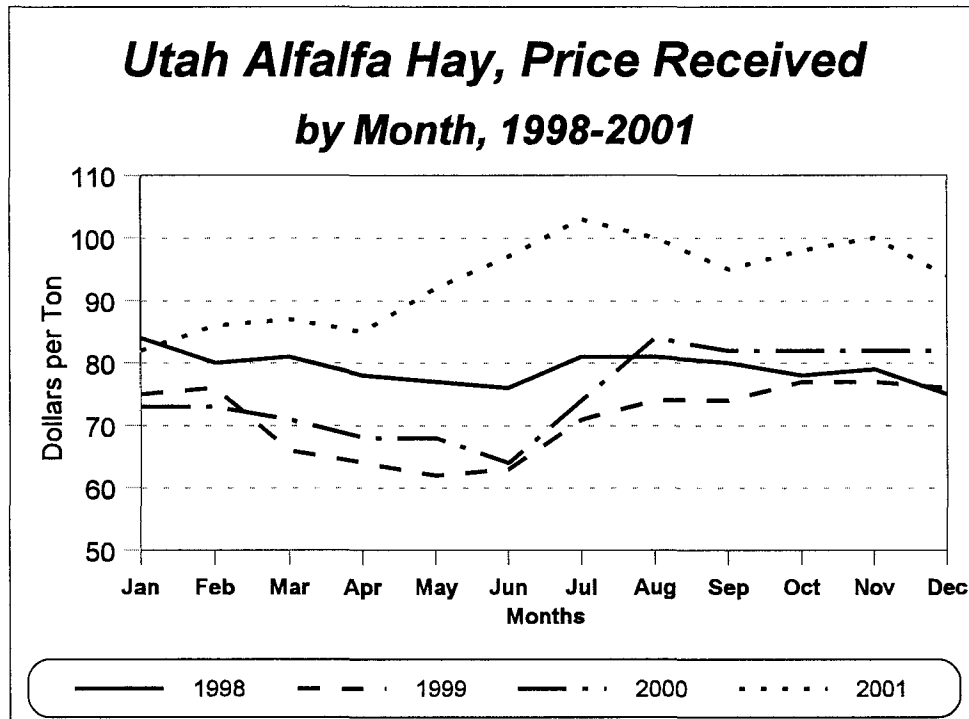
<sup>2</sup> Excludes Agricultural Service workers.



# Agricultural Prices - Monthly

Monthly average prices received by farmers for barley, alfalfa hay, all hay, sheep, and lambs are available for Utah. They are included in the tables that follow. 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.



## Average Prices Received: by Farmers, Utah, 1994-2001

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mktg Year Avg <sup>1</sup>
<b>Barley (Dollars per Bushel)</b>													
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	1.86
1999	1.87	1.93	1.95	1.90	1.83	1.93	1.83	1.85	1.84	1.81	1.87	1.90	1.89
2000	2.05	1.97	1.89	2.02	2.04	1.92	1.95	2.01	1.80	1.89	1.88	2.12	2.00
2001	2.10	2.10	2.14	2.13	2.28	1.92	2.02	2.03	2.04	2.11	1.99	2.22	2.05 <sup>2</sup>
<b>Alfalfa &amp; Alfalfa Hay Mixtures, Baled (Dollars per Ton)</b>													
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	77.00
1999	75.00	76.00	66.00	64.00	62.00	63.00	71.00	74.00	74.00	77.00	77.00	76.00	73.00
2000	73.00	73.00	71.00	68.00	68.00	64.00	74.00	84.00	82.00	82.00	82.00	82.00	79.50
2001	82.00	86.00	87.00	85.00	92.00	97.00	103.00	100.00	95.00	98.00	100.00	94.00	98.00 <sup>2</sup>
<b>All Hay, Baled (Dollars per Ton)</b>													
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	76.00
1999	74.00	74.00	65.00	62.00	61.00	63.00	70.00	73.00	73.00	76.00	75.00	74.00	71.50
2000	73.00	71.00	69.00	63.00	67.00	64.00	73.00	82.00	81.00	81.00	81.00	82.00	78.50
2001	81.00	86.00	85.00	84.00	92.00	95.00	101.00	98.00	93.00	97.00	99.00	94.00	96.50 <sup>2</sup>
<b>Sheep (Dollars per Cwt)</b>													
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	29.00	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	20.00	20.00	21.00	25.00	27.00
1999	27.00	27.00	27.00	25.00	25.00	24.00	28.00	22.00	24.00	20.00	25.00	29.00	24.70
2000	29.00	36.00	32.00	32.00	24.00	27.00	31.00	24.00	25.00	25.00	30.00	33.00	28.20
2001	36.00	39.00	37.00	31.00	29.00	25.00	26.00	24.00	25.00	22.00	26.00	33.00	27.10
<b>Lambs (Dollars per Cwt)</b>													
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	73.00	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	83.00	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
1999	69.00	63.00	65.00	73.00	80.00	78.00	76.00	76.00	73.00	70.00	79.00	82.00	73.80
2000	84.00	86.00	90.00	90.00	100.00	85.00	83.00	83.00	82.00	75.00	70.00	75.00	82.90
2001	80.00	80.00	85.00	89.00	83.00	75.00	66.00	56.00	57.00	52.00	55.00	64.00	61.00

<sup>1</sup> Marketing year, barley, July 1 to June 30; hay, May 1 to April 30; sheep and lamb, January 1 to Dec 31.

<sup>2</sup> Preliminary, final market year average will be published two months after the end of the marketing year.

### Average Prices Received: by Farmers, Utah, 1994-2001

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mktg Year Avg
<b>Milk, All (Dollars per Cwt)</b>													
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	15.40
1999	17.80	15.00	15.10	12.10	12.50	12.60	13.00	13.60	15.60	14.40	14.00	11.80	13.90
2000 <sup>1</sup>													11.20
2001 <sup>1</sup>													14.70
<b>Milk, Eligible for Fluid Market (Dollars per Cwt)<sup>2</sup></b>													
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	15.40
1999	18.00	15.20	15.30	12.20	12.60	12.70	13.00	13.50	15.70	14.50	14.30	11.90	14.00
2000 <sup>1</sup>													11.20
2001 <sup>1</sup>													14.70
<b>Milk, Manufacturing Grade (Dollars per Cwt)</b>													
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
1999	15.80	13.10	12.10	11.80	11.30	11.40	12.40	14.80	15.00	12.80	10.60	10.40	12.60
2000 <sup>1</sup>													10.30
2001 <sup>1</sup>													13.10

<sup>1</sup> Monthly estimates for Utah were discontinued in 2000.

<sup>2</sup> Including milk diverted to manufacturing.

### Average Prices Received: by Farmers, Milk Cows, Utah 1994-2001

Year	January	April	July	October	Marketing Year Average
	<i>Dollars per Head</i>	<i>Dollars per Head</i>	<i>Dollars per Head</i>	<i>Dollars per Head</i>	<i>Dollars per Head</i>
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
1999	1,160	1,200	1,230	1,300	1,220
2000 <sup>1</sup>					1,220
2001 <sup>1</sup>					1,450

<sup>1</sup> Quarterly estimates for Utah were discontinued in 2000.

# 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.

County estimates may be downloaded in .CSV file format by accessing the NASS homepage at <http://www.usda.gov/nass> and selecting "On-line DATA BASE" or "Anonymous FTP". ("Anonymous FTP" gives the user more versatility in selecting multiple years and commodities.)

Box Elder was the "Number one" county in **total grain production** (wheat, barley, oats, and corn) followed by Cache, Millard, Utah, and Davis Counties. These five counties accounted for 71 percent of the 2001 grain production. Box Elder was also "number one" in **acres of small grain planted** (wheat, barley, oats) followed by Cache, Utah, San Juan, and Millard Counties. These five counties accounted for 65 percent of the 2001 small grain acreage.

Box Elder County was the State's largest producer of **winter wheat** producing 59 percent of the State total. Cache County ranked second followed by Utah, San Juan, and Davis Counties.

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

**Barley** production was led by Cache County followed by Millard, Box Elder, Utah, and Sanpete County.

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

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

**Alfalfa hay** production was led by Millard County followed by Iron, Box Elder, Cache, and Duchesne

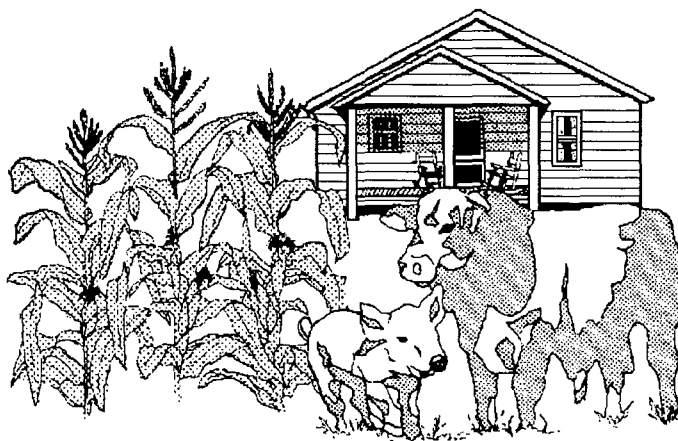
Counties. Rich was the leading county in **other hay** production followed by Duchesne, Sanpete, Utah, and Cache.

Cattle and sheep are in different locations (including counties and states) at different times of the year. The January 1 cattle and sheep county estimates include the livestock in the county where the headquarters ranch is located.

Box Elder County had the largest inventory of **cattle and calves** as of January 1, 2002 followed by Cache, Millard, Duchesne, and Utah. Cache County continued as the major county for **milk cows** with almost twice the number as Millard which ranked in second place. Box Elder, Utah, and Sanpete were also major dairy counties.

Sanpete was once again the "Number one" **sheep** county. Other major sheep producing counties were Box Elder, Iron, Summit, and Utah. The top five counties accounted for 63 percent of the total.

Beaver County was the "Number one" 2001 **total cash receipts** county. Cache was second followed by Utah, Box Elder, and Sanpete. Beaver was the leading county for **livestock cash receipts** followed by Cache, Sanpete, Box Elder, and Utah. **Crops cash receipts** were topped by Utah County followed by Box Elder, Davis, Millard, and Cache counties.



**County Estimates: by County, Selected Items and Years, Utah 1/**

Item	Unit	State	County					
			Beaver	Box Elder	Cache	Carbon	Daggett	Davis
<b>2001 Production</b>								
All Wheat .....	Bu	6,034,000		3,348,500	635,500			295,500
All Barley .....	Bu	4,420,000	80,000	528,000	914,500			82,500
Corn for Grain .....	Bu	2,130,000		569,000				201,500
Corn for Silage .....	Tons	924,000	21,500	175,000	157,500			22,500
Oats .....	Bu	390,000	14,000	47,000	29,000			7,500
All Hay .....	Tons	2,536,000	117,500	235,800	214,800	18,900	13,300	30,200
Alfalfa & Alfalfa Mix Hay .....	Tons	2,200,000	109,600	216,300	193,300	16,600	8,100	26,100
<b>January 1, 2002 Inventory</b>								
All Cattle & Calves .....	Head	920,000	35,000	110,000	76,000	11,000	4,000	8,000
Beef Cows .....	Head	357,000	12,000	41,000	8,000	6,000	2,000	3,500
Milk Cows .....	Head	93,000	3,000	11,000	23,500			500
Breeding Sheep & Lambs .....	Head	320,000		48,000	4,400	5,400		3,100
<b>Cash Receipts, 2001</b>								
Livestock & Lvstk Products .....	Mill \$	853.3	110.8	76.2	100.7	4.9	1.8	6.0
Crops .....	Mill \$	263.1	7.2	33.9	17.1	1.2	0.7	32.6
Total .....	Mill \$	1,116.3	117.9	110.1	117.8	6.1	2.5	38.6
<b>1997 Census of Agriculture</b>								
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 <sup>2/</sup> .....	Acres	1,107,928	28,209	174,615	119,910	6,060	7,676	17,808
Irrigated Land <sup>3/</sup> .....	Acres	1,212,201	35,177	137,074	93,008	10,588	7,840	21,907

See footnotes below.

**County Estimates: by County, Selected Items and Years, Utah 1/ (continued)**

Item	Unit	County						
		Duchesne	Emery	Garfield	Grand	Iron	Juab	Kane
<b>2001 Production</b>								
All Wheat .....	Bu						121,000	
All Barley .....	Bu	78,000				135,000	63,000	
Corn for Grain .....	Bu	147,000	70,000					
Corn for Silage .....	Tons	21,000	14,000			12,000		
Oats .....	Bu	24,000	35,000	8,000		9,000	7,000	
All Hay .....	Tons	173,600	62,100	40,500	10,800	250,400	64,500	11,100
Alfalfa & Alfalfa Mix Hay .....	Tons	139,100	55,600	35,000	9,600	237,400	58,600	9,500
<b>January 1, 2002 Inventory</b>								
All Cattle & Calves .....	Head	66,000	27,000	20,000	2,500	24,000	17,000	10,000
Beef Cows .....	Head	32,000	13,000	11,000	2,000	10,000	8,000	5,500
Milk Cows .....	Head	2,500	500			2,500	500	
Breeding Sheep & Lambs .....	Head	7,300	3,900	1,800		33,500	7,500	1,200
<b>Cash Receipts, 2001</b>								
Livestock & Lvstk Products .....	Mill \$	34.5	12.9	8.6	3.4	30.1	8.8	4.3
Crops .....	Mill \$	9.5	3.7	2.2	1.3	16.7	7.6	0.6
Total .....	Mill \$	43.9	16.5	10.8	4.7	46.8	16.5	5.0
<b>1997 Census of Agriculture</b>								
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 <sup>2/</sup> .....	Acres	56,971	20,922	14,565	3,254	53,457	29,998	3,210
Irrigated Land <sup>3/</sup> .....	Acres	114,790	41,198	25,406	4,472	60,400	22,236	7,198

1/ These tables are a recap by county of estimates published on pages 88 through 111. 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 1/ (continued)**

Item	Unit	County							
		Millard	Morgan	Piute	Rich	Salt Lake	San Juan	Sanpete	Sevier
<b>2001 Production</b>									
All Wheat .....	Bu	269,500					324,000		
All Barley .....	Bu	696,500	142,000		78,000	85,000		374,000	182,500
Corn for Grain .....	Bu	290,000							84,000
Corn for Silage .....	Tons	106,000						52,000	74,000
Oats .....	Bu	16,000	13,500			8,500	33,500	15,000	15,500
All Hay .....	Tons	269,700	28,600	27,200	82,900	29,400	17,500	155,400	113,800
Alfalfa & Alfalfa Mix Hay ...	Tons	256,700	24,900	21,200	22,900	26,600	15,000	128,900	105,200
<b>January 1, 2002 Inventory</b>									
All Cattle & Calves .....	Head	67,000	11,000	11,000	52,000	8,000	20,000	54,000	44,000
Beef Cows .....	Head	21,000	4,500	4,000	32,000	3,000	11,000	18,000	12,000
Milk Cows .....	Head	12,500	1,500	1,800		700		6,200	5,300
Breeding Sheep & Lambs ...	Head	6,300	9,300	4,400	12,000	3,300	6,300	61,000	4,400
<b>Cash Receipts, 2001</b>									
Livestock & Lvst Products .	Mill \$	66.4	12.2	9.3	22.2	16.3	8.6	89.3	34.9
Crops .....	Mill \$	18.5	1.9	1.5	4.4	13.0	3.6	9.7	7.1
Total .....	Mill \$	84.9	14.1	10.8	26.7	29.3	12.1	99.0	42.0
<b>1997 Census of Agriculture</b>									
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

See footnotes below.

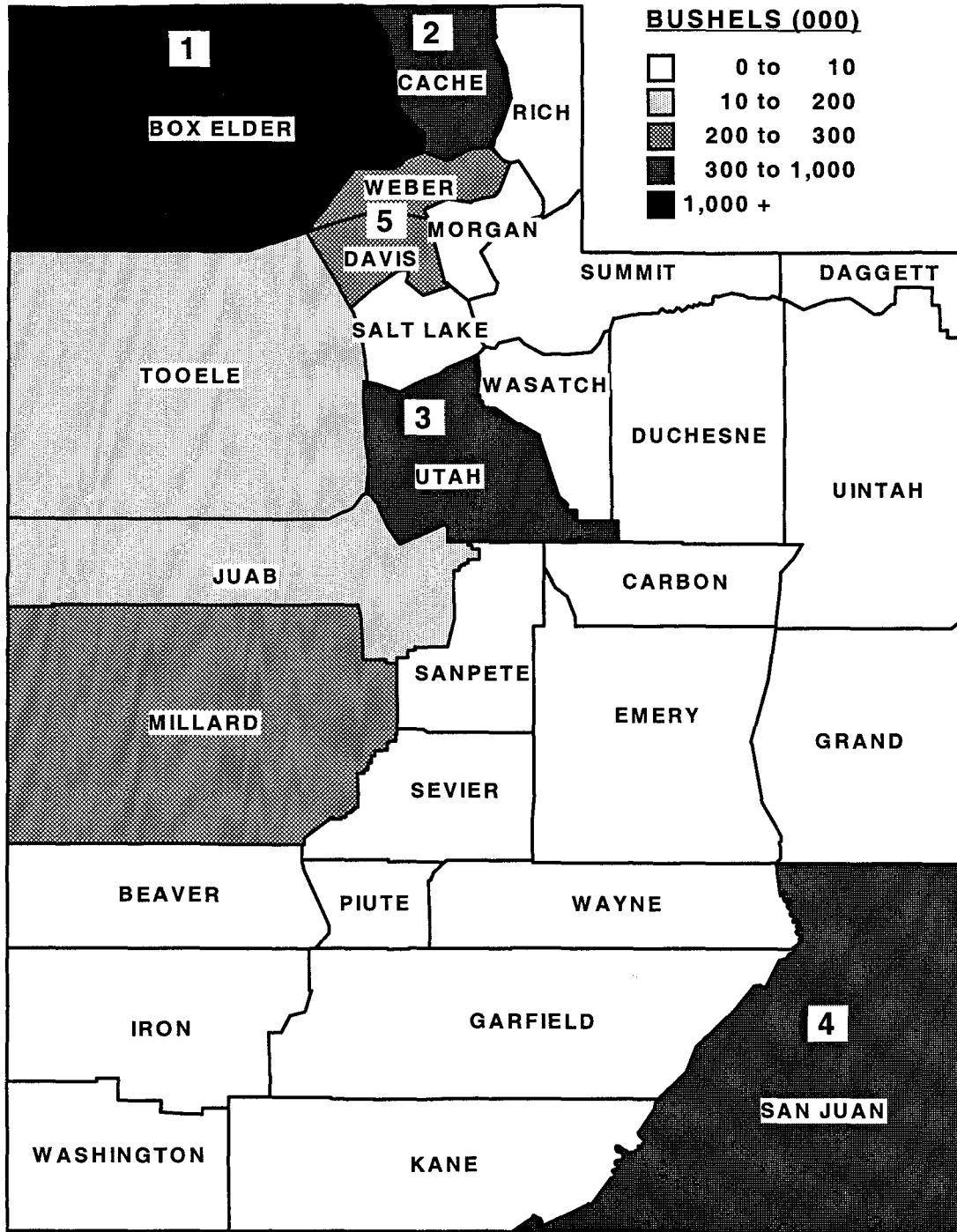
**County Estimates: by County, Selected Items and Years, Utah 1/ (continued)**

Item	Unit	County							
		Summit	Tooele	Uintah	Utah	Wasatch	Washington	Wayne	Weber
<b>2001 Production</b>									
All Wheat .....	Bu		104,500		419,000				200,500
All Barley .....	Bu		90,000	70,000	430,000	52,000		118,500	128,000
Corn for Grain .....	Bu			194,500	346,000				131,000
Corn for Silage .....	Tons			41,500	100,000				84,000
Oats .....	Bu		6,000	30,000	32,500	7,500	8,000	9,000	14,500
All Hay .....	Tons	42,600	50,600	137,900	153,100	28,800	39,200	42,300	73,500
Alfalfa & Alfalfa Mix Hay ...	Tons	23,100	46,300	121,400	130,600	24,500	34,400	37,900	65,600
<b>January 1, 2002 Inventory</b>									
All Cattle & Calves .....	Head	27,000	28,000	49,000	63,000	8,500	19,000	21,000	27,000
Beef Cows .....	Head	14,000	13,000	23,000	20,000	3,000	9,000	8,500	7,000
Milk Cows .....	Head	2,000		2,000	8,500	1,000		1,600	5,500
Breeding Sheep & Lambs .	Head	29,300	4,000	10,600	28,800	12,000		6,200	4,900
<b>Cash Receipts, 2001</b>									
Livestock & Lvst Products	Mill \$	20.9	13.3	26.6	73.5	6.8	9.4	13.6	26.9
Crops .....	Mill \$	2.2	3.5	7.9	37.9	2.2	3.9	2.7	9.0
Total .....	Mill \$	23.1	16.8	34.5	111.4	9.0	13.2	16.3	35.9
<b>1997 Census of Agriculture</b>									
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/ This table is a recap by county of estimates published on pages 88 through 111. 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.

# UTAH ALL WHEAT PRODUCTION

## By County, 2001





## County Estimates: All Wheat, All Cropping Practices, Utah, 2000 & 2001 <sup>1</sup>

District and County	Acres				Harvested Yield		Production	
	Planted		Harvested		2000	2001	2000	2001
	2000	2001	2000	2001				
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	72,400	65,700	71,100	61,100	51	55	3,618,000	3,348,500
Cache	21,400	17,800	20,800	16,400	42	39	873,000	635,500
Davis	3,400	3,400	3,400	3,200	81	92	274,500	295,500
Morgan								
Rich								
Salt Lake	8,900		8,400		22		182,500	
Tooele	4,000	3,700	3,800	3,100	31	34	119,500	104,500
Weber	3,000	2,600	3,000	2,500	74	80	221,500	200,500
Other Counties	1,900	9,800	1,800	8,500	45	22	80,500	186,500
<b>Total</b>	<b>115,000</b>	<b>103,000</b>	<b>112,300</b>	<b>94,800</b>	<b>48</b>	<b>50</b>	<b>5,369,500</b>	<b>4,771,000</b>
<b>Central</b>								
Juab	5,800	5,800	5,500	3,600	26	34	145,000	121,000
Millard	5,500	4,900	4,600	4,000	65	67	297,000	269,500
Sanpete								
Sevier								
Utah	17,900	17,500	16,700	15,400	28	27	462,500	419,000
Other Counties	800	800	700	200	44	38	30,500	7,500
<b>Total</b>	<b>30,000</b>	<b>29,000</b>	<b>27,500</b>	<b>23,200</b>	<b>34</b>	<b>35</b>	<b>935,000</b>	<b>817,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne								
Emery								
Grand								
San Juan	24,400	22,900	23,500	19,900	18	16	427,500	324,000
Summit								
Uintah	1,000		700		36		25,500	
Wasatch								
Other Counties	1,100	1,800	900	1,300	45	25	40,500	32,000
<b>Total</b>	<b>26,500</b>	<b>24,700</b>	<b>25,100</b>	<b>21,200</b>	<b>20</b>	<b>17</b>	<b>493,500</b>	<b>356,000</b>
<b>Southern</b>								
Beaver								
Garfield								
Iron	500		500		48		24,000	
Kane								
Piute								
Washington								
Wayne								
Other Counties	1,000	3,300	600	1,800	47	50	28,000	90,000
<b>Total</b>	<b>1,500</b>	<b>3,300</b>	<b>1,100</b>	<b>1,800</b>	<b>47</b>	<b>50</b>	<b>52,000</b>	<b>90,000</b>
<b>State</b>								
<b>Total</b>	<b>173,000</b>	<b>160,000</b>	<b>166,000</b>	<b>141,000</b>	<b>41</b>	<b>43</b>	<b>6,850,000</b>	<b>6,034,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: All Wheat, by Cropping Practice, Utah, 2000 <sup>1</sup>

District and County	Irrigated				Non-Irrigated			
	Acres		Har-vested Yield	Production	Acres		Har-vested Yield	Production
	Planted	Harvested			Planted	Harvested		
	Acres	Acres	Bushels	Bushels	Acres	Acres	Bushels	Bushels
<b>Northern</b>								
Box Elder	30,200	29,900	90	2,703,000	42,200	41,200	22	915,000
Cache	8,000	7,800	72	565,000	13,400	13,000	24	308,000
Davis	3,100	3,100	87	269,500				
Morgan					900	800	15	12,000
Rich								
Salt Lake	700	700	79	55,000	8,200	7,700	17	127,500
Tooele	1,000	1,000	72	71,500	3,000	2,800	17	48,000
Weber	2,600	2,600	83	216,000				
Other Counties	900	900	74	67,000	800	800	15	12,000
<b>Total</b>	<b>46,500</b>	<b>46,000</b>	<b>86</b>	<b>3,947,000</b>	<b>68,500</b>	<b>66,300</b>	<b>21</b>	<b>1,422,500</b>
<b>Central</b>								
Juab	1,200	1,200	73	88,000	4,600	4,300	13	57,000
Millard	4,400	3,600	78	281,500	1,100	1,000	16	15,500
Sanpete								
Sevier								
Utah	3,900	3,700	77	283,500	14,000	13,000	14	179,000
Other Counties	500	400	68	27,000	300	300	12	3,500
<b>Total</b>	<b>10,000</b>	<b>8,900</b>	<b>76</b>	<b>680,000</b>	<b>20,000</b>	<b>18,600</b>	<b>14</b>	<b>255,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne								
Emery								
Grand								
San Juan					24,200	23,300	18	414,500
Summit								
Uintah	600	400	53	21,000				
Wasatch								
Other Counties	900	800	60	48,000	800	600	17	10,000
<b>Total</b>	<b>1,500</b>	<b>1,200</b>	<b>58</b>	<b>69,000</b>	<b>25,000</b>	<b>23,900</b>	<b>18</b>	<b>424,500</b>
<b>Southern</b>								
Beaver								
Garfield								
Iron								
Kane								
Piute								
Washington								
Wayne								
Other Counties	1,000	900	54	49,000	500	200	15	3,000
<b>Total</b>	<b>1,000</b>	<b>900</b>	<b>54</b>	<b>49,000</b>	<b>500</b>	<b>200</b>	<b>15</b>	<b>3,000</b>
<b>State Total</b>	<b>59,000</b>	<b>57,000</b>	<b>83</b>	<b>4,745,000</b>	<b>114,000</b>	<b>109,000</b>	<b>19</b>	<b>2,105,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: All Wheat, by Cropping Practice, Utah, 2001 <sup>1</sup>

District and County	Irrigated				Non-Irrigated			
	Acres		Harvested Yield	Production	Acres		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	26,200	25,200	97	2,452,000	39,500	35,900	25	896,500
Cache	6,500	6,300	65	411,500	11,300	10,100	22	224,000
Davis	2,900	2,800	102	285,500				
Morgan								
Rich								
Salt Lake					8,000	7,100	17	120,000
Tooele								
Weber	2,500	2,400	83	199,000				
Other Counties	1,900	1,700	72	123,000	4,200	3,300	18	59,500
<b>Total</b>	<b>40,000</b>	<b>38,400</b>	<b>90</b>	<b>3,471,000</b>	<b>63,000</b>	<b>56,400</b>	<b>23</b>	<b>1,300,000</b>
<b>Central</b>								
Juab					4,300	2,400	14	34,000
Millard	3,900	3,200	81	258,500	1,000	800	14	11,000
Sanpete								
Sevier								
Utah	3,000	2,600	92	239,000	14,500	12,800	14	180,000
Other Counties	2,000	1,300	72	93,500	300	100	10	1,000
<b>Total</b>	<b>8,900</b>	<b>7,100</b>	<b>83</b>	<b>591,000</b>	<b>20,100</b>	<b>16,100</b>	<b>14</b>	<b>226,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne								
Emery								
Grand								
San Juan					22,700	19,800	16	317,000
Summit								
Uintah								
Wasatch								
Other Counties	800	400	68	27,000	1,200	1,000	12	12,000
<b>Total</b>	<b>800</b>	<b>400</b>	<b>68</b>	<b>27,000</b>	<b>23,900</b>	<b>20,800</b>	<b>16</b>	<b>329,000</b>
<b>Southern</b>								
Beaver								
Garfield								
Iron								
Kane								
Piute								
Washington								
Wayne								
Other Counties	2,800	1,600	54	87,000	500	200	15	3,000
<b>Total</b>	<b>2,800</b>	<b>1,600</b>	<b>54</b>	<b>87,000</b>	<b>500</b>	<b>200</b>	<b>15</b>	<b>3,000</b>
<b>State Total</b>	<b>52,500</b>	<b>47,500</b>	<b>88</b>	<b>4,176,000</b>	<b>107,500</b>	<b>93,500</b>	<b>20</b>	<b>1,858,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: Winter Wheat, All Cropping Practices, Utah, 2000 & 2001 <sup>1</sup>

District and County	Acres				Harvested Yield		Production	
	Planted		Harvested		2000	2001	2000	2001
	2000	2001	2000	2001				
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	65,500	60,000	64,700	56,400	51	54	3,276,000	3,072,000
Cache	18,000	15,000	17,700	13,900	42	39	735,000	536,000
Davis	2,500	2,500	2,500	2,500	83	97	207,000	243,000
Morgan								
Rich								
Salt Lake	8,000	7,500	7,600	6,800	21	17	158,500	115,500
Tooele	3,200	3,000	3,100	2,600	31	32	95,000	82,500
Weber	1,900	1,700	1,900	1,700	82	94	156,000	160,000
Other Counties	900	800	800	600	39	40	31,500	24,000
<b>Total</b>	<b>100,000</b>	<b>90,500</b>	<b>98,300</b>	<b>84,500</b>	<b>47</b>	<b>50</b>	<b>4,659,000</b>	<b>4,233,000</b>
<b>Central</b>								
Juab	4,900	5,000	4,600	2,900	23	33	106,000	95,500
Millard	3,700	3,500	3,300	2,800	62	64	204,500	179,500
Sanpete								
Sevier								
Utah	15,500	15,500	14,500	14,200	25	25	358,000	361,000
Other Counties	400	500	400	100	39	10	15,500	1,000
<b>Total</b>	<b>24,500</b>	<b>24,500</b>	<b>22,800</b>	<b>20,000</b>	<b>30</b>	<b>32</b>	<b>684,000</b>	<b>637,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne								
Emery								
Grand								
San Juan	23,500	21,000	22,700	18,100	18	17	415,000	299,000
Summit								
Uintah								
Wasatch								
Other Counties	1,000	1,500	600	1,100	32	17	19,000	19,000
<b>Total</b>	<b>24,500</b>	<b>22,500</b>	<b>23,300</b>	<b>19,200</b>	<b>19</b>	<b>17</b>	<b>434,000</b>	<b>318,000</b>
<b>Southern</b>								
Beaver								
Garfield								
Iron								
Kane								
Piute								
Washington								
Wayne								
Other Counties	1,000	2,500	600	1,300	38	48	23,000	62,000
<b>Total</b>	<b>1,000</b>	<b>2,500</b>	<b>600</b>	<b>1,300</b>	<b>38</b>	<b>48</b>	<b>23,000</b>	<b>62,000</b>
<b>State Total</b>	<b>150,000</b>	<b>140,000</b>	<b>145,000</b>	<b>125,000</b>	<b>40</b>	<b>42</b>	<b>5,800,000</b>	<b>5,250,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: Other Spring Wheat, All Cropping Practices, Utah, 2000 & 2001 <sup>1</sup>

District and County	Acres				Harvested Yield		Production	
	Planted		Harvested		2000	2001	2000	2001
	2000	2001	2000	2001				
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	6,900	5,700	6,400	4,700	53	59	342,000	276,500
Cache	3,400	2,800	3,100	2,500	45	40	138,000	99,500
Davis	900	900	900	700	75	75	67,500	52,500
Morgan								
Rich								
Salt Lake	900		800		30		24,000	
Tooele	800	700	700	500	35	44	24,500	22,000
Weber	1,100	900	1,100	800	60	51	65,500	40,500
Other Counties	1,000	1,500	1,000	1,100	49	43	49,000	47,000
<b>Total</b>	15,000	12,500	14,000	10,300	51	52	710,500	538,000
<b>Central</b>								
Juab	900	800	900	700	43	36	39,000	25,500
Millard	1,800	1,400	1,300	1,200	71	75	92,500	90,000
Sanpete								
Sevier								
Utah	2,400	2,000	2,200	1,200	48	48	104,500	58,000
Other Counties	400	300	300	100	50	65	15,000	6,500
<b>Total</b>	5,500	4,500	4,700	3,200	53	56	251,000	180,000
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne								
Emery								
Grand								
San Juan	900	1,900	800	1,800	11	14	8,500	25,000
Summit								
Uintah								
Wasatch								
Other Counties	1,100	300	1,000	200	51	65	51,000	13,000
<b>Total</b>	2,000	2,200	1,800	2,000	33	19	59,500	38,000
<b>Southern</b>								
Beaver								
Garfield								
Iron								
Kane								
Piute								
Washington								
Wayne								
Other Counties	500	800	500	500	58	56	29,000	28,000
<b>Total</b>	500	800	500	500	58	56	29,000	28,000
<b>State Total</b>	23,000	20,000	21,000	16,000	50	49	1,050,000	784,000

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: Corn, All Cropping Practices, Utah, 2000 <sup>1</sup>

District and County	Acres Planted All Purposes	Corn for Grain			Corn for Silage		
		Acres Harvested	Harvested Yield	Production	Acres Harvested	Harvested Yield	Production
	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>
<b>Northern</b>							
Box Elder	12,500	5,900	147	867,500	6,500	24	156,000
Cache	7,000	300	138	41,500	6,500	22	140,000
Davis	2,600	1,400	148	207,000	1,200	23	28,000
Morgan							
Rich							
Salt Lake	700	300	148	44,500	400	23	9,000
Tooele	500	100	135	13,500	400	20	8,000
Weber	4,500	900	156	140,000	3,600	24	88,000
Other Counties	200				200	20	4,000
<b>Total</b>	<b>28,000</b>	<b>8,900</b>	<b>148</b>	<b>1,314,000</b>	<b>18,800</b>	<b>23</b>	<b>433,000</b>
<b>Central</b>							
Juab	500	100	145	14,500	400	20	8,000
Millard	8,400	2,300	153	352,000	5,900	20	118,000
Sanpete	2,700	100	115	11,500	2,600	19	50,500
Sevier	4,400	600	145	87,000	3,800	20	77,500
Utah	8,500	2,900	140	407,000	5,500	20	110,000
<b>Total</b>	<b>24,500</b>	<b>6,000</b>	<b>145</b>	<b>872,000</b>	<b>18,200</b>	<b>20</b>	<b>364,000</b>
<b>Eastern</b>							
Carbon	600	200	115	23,000	400	18	7,000
Daggett							
Duchesne	2,600	1,300	125	163,000	1,300	19	25,000
Emery	1,600	500	132	66,000	1,000	18	18,000
Grand							
San Juan							
Summit							
Uintah	4,000	1,100	140	154,000	2,800	17	47,000
Wasatch							
Other Counties	400				300	17	5,000
<b>Total</b>	<b>9,200</b>	<b>3,100</b>	<b>131</b>	<b>406,000</b>	<b>5,800</b>	<b>18</b>	<b>102,000</b>
<b>Southern</b>							
Beaver	1,400				1,400	21	29,500
Garfield							
Iron	700				600	21	12,500
Kane							
Piute							
Washington							
Wayne							
Other Counties	200				200	20	4,000
<b>Total</b>	<b>2,300</b>				<b>2,200</b>	<b>21</b>	<b>46,000</b>
<b>State</b>							
<b>Total</b>	<b>64,000</b>	<b>18,000</b>	<b>144</b>	<b>2,592,000</b>	<b>45,000</b>	<b>21</b>	<b>945,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

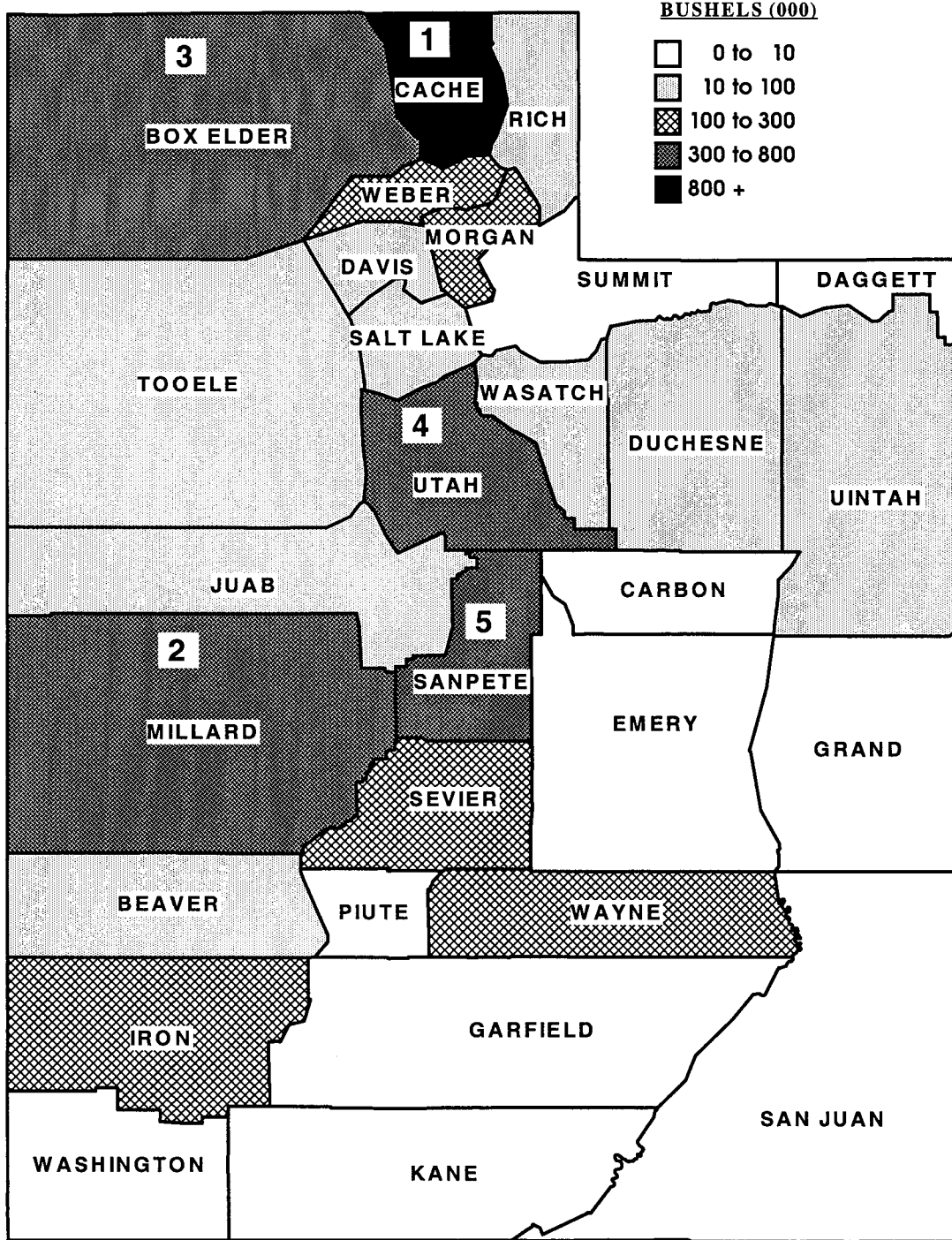
## County Estimates: Corn, All Cropping Practices, Utah, 2001 <sup>1</sup>

District and County	Acres Planted All Purposes	Corn for Grain			Corn for Silage		
		Acres Harvested	Harvested Yield	Production	Acres Harvested	Harvested Yield	Production
	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>
<b>Northern</b>							
Box Elder	11,300	3,900	146	569,000	7,300	24	175,000
Cache	7,800				7,500	21	157,500
Davis	2,400	1,400	144	201,500	900	25	22,500
Morgan							
Rich							
Salt Lake							
Tooele							
Weber	4,200	900	146	131,000	3,300	25	84,000
Other Counties	1,300	500	140	70,000	1,000	21	21,000
<b>Total</b>	<b>27,000</b>	<b>6,700</b>	<b>145</b>	<b>971,500</b>	<b>20,000</b>	<b>23</b>	<b>460,000</b>
<b>Central</b>							
Juab							
Millard	7,400	2,000	145	290,000	5,300	20	106,000
Sanpete	2,600				2,600	20	52,000
Sevier	4,300	600	140	84,000	3,700	20	74,000
Utah	7,700	2,500	138	346,000	5,000	20	100,000
Other Counties	500	100	140	14,000	400	20	8,000
<b>Total</b>	<b>22,500</b>	<b>5,200</b>	<b>141</b>	<b>734,000</b>	<b>17,000</b>	<b>20</b>	<b>340,000</b>
<b>Eastern</b>							
Carbon							
Daggett							
Duchesne	2,400	1,100	134	147,000	1,300	16	21,000
Emery	1,500	500	140	70,000	900	16	14,000
Grand							
San Juan							
Summit							
Uintah	3,700	1,400	139	194,500	2,300	18	41,500
Wasatch							
Other Counties	900	100	130	13,000	600	17	10,000
<b>Total</b>	<b>8,500</b>	<b>3,100</b>	<b>137</b>	<b>424,500</b>	<b>5,100</b>	<b>17</b>	<b>86,500</b>
<b>Southern</b>							
Beaver	1,200				1,100	20	21,500
Garfield							
Iron	600				600	20	12,000
Kane							
Piute							
Washington							
Wayne							
Other Counties	200				200	20	4,000
<b>Total</b>	<b>2,000</b>				<b>1,900</b>	<b>20</b>	<b>37,500</b>
<b>State Total</b>	<b>60,000</b>	<b>15,000</b>	<b>142</b>	<b>2,130,000</b>	<b>44,000</b>	<b>21</b>	<b>924,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

# UTAH BARLEY PRODUCTION

## By County, 2001





## County Estimates: All Barley, All Cropping Practices, Utah, 2000 & 2001 <sup>1</sup>

District and County	Acres				Harvested Yield		Production	
	Planted		Harvested		2000	2001	2000	2001
	2000	2001	2000	2001				
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	11,500	10,000	10,000	7,900	70	67	696,000	528,000
Cache	25,100	22,300	23,700	17,100	61	53	1,448,000	914,500
Davis	1,500	1,400	1,400	1,000	83	83	116,000	82,500
Morgan	3,300	3,000	3,100	2,200	68	65	211,000	142,000
Rich	1,700	1,600	1,600	1,200	73	65	116,000	78,000
Salt Lake	1,500	1,400	1,400	1,100	66	77	92,000	85,000
Tooele	2,600	2,000	2,300	1,500	62	60	143,000	90,000
Weber	2,800	2,300	2,500	1,800	75	71	187,000	128,000
<b>Total</b>	<b>50,000</b>	<b>44,000</b>	<b>46,000</b>	<b>33,800</b>	<b>65</b>	<b>61</b>	<b>3,009,000</b>	<b>2,048,000</b>
<b>Central</b>								
Juab	2,000	1,600	1,700	1,200	65	53	111,000	63,000
Millard	12,300	11,200	8,800	8,600	75	81	657,000	696,500
Sanpete	6,300	6,100	4,000	4,700	72	80	288,000	374,000
Sevier	3,300	3,000	2,100	2,300	88	79	185,000	182,500
Utah	9,100	8,100	7,900	6,400	79	67	623,000	430,000
<b>Total</b>	<b>33,000</b>	<b>30,000</b>	<b>24,500</b>	<b>23,200</b>	<b>76</b>	<b>75</b>	<b>1,864,000</b>	<b>1,746,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne	2,100	1,700	1,800	1,100	72	71	130,000	78,000
Emery								
Grand								
San Juan								
Summit								
Uintah	1,600	1,500	1,200	1,000	64	70	77,000	70,000
Wasatch	1,000	1,000	900	800	62	65	56,000	52,000
Other Counties	800	800	600	600	65	73	39,000	43,500
<b>Total</b>	<b>5,500</b>	<b>5,000</b>	<b>4,500</b>	<b>3,500</b>	<b>67</b>	<b>70</b>	<b>302,000</b>	<b>243,500</b>
<b>Southern</b>								
Beaver	1,600	1,400	400	1,000	90	80	36,000	80,000
Garfield								
Iron	2,300	2,000	1,700	1,500	96	90	164,000	135,000
Kane								
Piute								
Washington	500		200		95		19,000	
Wayne	1,600	1,700	600	1,400	95	85	57,000	118,500
Other Counties	500	900	100	600	90	82	9,000	49,000
<b>Total</b>	<b>6,500</b>	<b>6,000</b>	<b>3,000</b>	<b>4,500</b>	<b>95</b>	<b>85</b>	<b>285,000</b>	<b>382,500</b>
<b>State</b>								
<b>Total</b>	<b>95,000</b>	<b>85,000</b>	<b>78,000</b>	<b>65,000</b>	<b>70</b>	<b>68</b>	<b>5,460,000</b>	<b>4,420,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: All Barley, by Cropping Practice, Utah, 2000 <sup>1</sup>

District and County	Irrigated				Non-Irrigated			
	Acres		Har-vested Yield	Production	Acres		Har-vested Yield	Production
	Planted	Harvested			Planted	Harvested		
	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	8,000	7,500	85	640,000	3,500	2,500	22	56,000
Cache	17,000	16,000	78	1,254,000	8,100	7,700	25	194,000
Davis	1,300	1,200	93	111,000	200	200	25	5,000
Morgan	2,200	2,100	88	184,000	1,100	1,000	27	27,000
Rich	1,600	1,500	75	113,000	100	100	30	3,000
Salt Lake	900	900	89	80,000	600	500	24	12,000
Tooele	2,000	1,900	69	132,000	600	400	28	11,000
Weber	2,000	1,900	90	171,000	800	600	27	16,000
<b>Total</b>	<b>35,000</b>	<b>33,000</b>	<b>81</b>	<b>2,685,000</b>	<b>15,000</b>	<b>13,000</b>	<b>25</b>	<b>324,000</b>
<b>Central</b>								
Juab	1,900	1,700	65	111,000	100			
Millard	12,100	8,600	76	651,000	200	200	30	6,000
Sanpete	5,900	3,700	75	278,000	400	300	33	10,000
Sevier	3,200	2,100	88	185,000	100			
Utah	8,900	7,900	79	623,000	200			
<b>Total</b>	<b>32,000</b>	<b>24,000</b>	<b>77</b>	<b>1,848,000</b>	<b>1,000</b>	<b>500</b>	<b>32</b>	<b>16,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne	2,000	1,700	75	128,000	100	100	20	2,000
Emery								
Grand								
San Juan								
Summit								
Uintah	1,300	1,000	73	73,000	300	200	20	4,000
Wasatch	800	800	68	54,000	200	100	20	2,000
Other Counties	600	500	74	37,000	200	100	20	2,000
<b>Total</b>	<b>4,700</b>	<b>4,000</b>	<b>73</b>	<b>292,000</b>	<b>800</b>	<b>500</b>	<b>20</b>	<b>10,000</b>
<b>Southern</b>								
Beaver	1,600	400	90	36,000				
Garfield								
Iron	2,200	1,700	96	164,000	100			
Kane								
Piute								
Washington	500	200	95	19,000				
Wayne	1,500	600	95	57,000	100			
Other Counties	500	100	90	9,000				
<b>Total</b>	<b>6,300</b>	<b>3,000</b>	<b>95</b>	<b>285,000</b>	<b>200</b>			
<b>State Total</b>	<b>78,000</b>	<b>64,000</b>	<b>80</b>	<b>5,110,000</b>	<b>17,000</b>	<b>14,000</b>	<b>25</b>	<b>350,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: All Barley, by Cropping Practice, Utah, 2001 <sup>1</sup>

District and County	Irrigated				Non-Irrigated			
	Acres		Har-vested Yield	Production	Acres		Har-vested Yield	Production
	Planted	Harvested			Planted	Harvested		
	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	7,800	6,000	80	480,000	2,200	1,900	25	48,000
Cache	16,000	11,600	67	777,000	6,300	5,500	25	137,500
Davis	1,300	900	89	80,000				
Morgan	2,200	1,500	82	123,000				
Rich	1,500	1,100	68	75,000				
Salt Lake	1,200	900	89	80,000				
Tooele	2,000	1,500	60	90,000				
Weber	2,000	1,500	80	120,000				
Other Counties					1,500	1,400	27	37,500
<b>Total</b>	<b>34,000</b>	<b>25,000</b>	<b>73</b>	<b>1,825,000</b>	<b>10,000</b>	<b>8,800</b>	<b>25</b>	<b>223,000</b>
<b>Central</b>								
Juab	1,400	1,000	58	58,000				
Millard	11,200	8,600	81	696,500				
Sanpete	5,800	4,500	82	369,000				
Sevier	2,500	1,900	91	172,500				
Utah	7,600	6,000	70	420,000				
Other Counties					1,500	1,200	25	30,000
<b>Total</b>	<b>28,500</b>	<b>22,000</b>	<b>78</b>	<b>1,716,000</b>	<b>1,500</b>	<b>1,200</b>	<b>25</b>	<b>30,000</b>
<b>Eastern</b>								
Carbon								
Daggett								
Duchesne	1,500	1,100	71	78,000				
Emery								
Grand								
San Juan								
Summit								
Uintah	1,400	1,000	70	70,000				
Wasatch	1,000	800	65	52,000				
Other Counties	600	600	73	43,500	500			
<b>Total</b>	<b>4,500</b>	<b>3,500</b>	<b>70</b>	<b>243,500</b>	<b>500</b>			
<b>Southern</b>								
Beaver	1,400	1,000	80	80,000				
Garfield								
Iron	2,000	1,500	90	135,000				
Kane								
Piute								
Washington								
Wayne	1,700	1,400	85	118,500				
Other Counties	900	600	82	49,000				
<b>Total</b>	<b>6,000</b>	<b>4,500</b>	<b>85</b>	<b>382,500</b>				
<b>State Total</b>	<b>73,000</b>	<b>55,000</b>	<b>76</b>	<b>4,167,000</b>	<b>12,000</b>	<b>10,000</b>	<b>25</b>	<b>253,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: Oats, All Cropping Practices, Utah, 2000 & 2001 <sup>1</sup>

District and County	Acres				Harvested Yield per acre		Production	
	Planted		Harvested		2000	2001	2000	2001
	2000	2001	2000	2001				
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>	<i>Bushels</i>
<b>Northern</b>								
Box Elder	3,200	4,000	1,000	600	85	78	85,000	47,000
Cache	2,200	3,000	600	500	60	58	36,000	29,000
Davis	500	600	100	100	90	75	9,000	7,500
Morgan	700	700	200	200	85	68	17,000	13,500
Rich	1,300	1,300	100		70		7,000	
Salt Lake	800	800	200	100	90	85	18,000	8,500
Tooele	1,200	2,000	100	100	80	60	8,000	6,000
Weber	1,100	1,100	400	200	60	73	24,000	14,500
<b>Total</b>	<b>11,000</b>	<b>13,500</b>	<b>2,700</b>	<b>1,800</b>	<b>76</b>	<b>70</b>	<b>204,000</b>	<b>126,000</b>
<b>Central</b>								
Juab	800	1,100	100	100	75	70	7,500	7,000
Millard	3,900	4,400	300	200	73	80	22,000	16,000
Sanpete	3,800	4,000	300	200	68	75	20,500	15,000
Sevier	3,300	4,000	300	200	83	78	25,000	15,500
Utah	2,200	3,500	300	400	77	81	23,000	32,500
<b>Total</b>	<b>14,000</b>	<b>17,000</b>	<b>1,300</b>	<b>1,100</b>	<b>75</b>	<b>78</b>	<b>98,000</b>	<b>86,000</b>
<b>Eastern</b>								
Carbon	1,000	1,100	200		65		13,000	
Daggett								
Duchesne	2,900	4,500	400	300	75	80	30,000	24,000
Emery	3,100	3,300	600	500	66	70	39,500	35,000
Grand								
San Juan	1,400	1,800	600	1,200	20	28	12,000	33,500
Summit	800	1,000						
Uintah	1,900	2,300	500	400	69	75	34,500	30,000
Wasatch	700	1,000	100	100	80	75	8,000	7,500
Other Counties	200	500						
<b>Total</b>	<b>12,000</b>	<b>15,500</b>	<b>2,400</b>	<b>2,500</b>	<b>57</b>	<b>52</b>	<b>137,000</b>	<b>130,000</b>
<b>Southern</b>								
Beaver	2,100	2,100	100	200	85	70	8,500	14,000
Garfield	1,500	1,500		100		80		8,000
Iron	4,600	5,300	200	100	80	90	16,000	9,000
Kane	800	800						
Piute	1,200	1,300	100		85		8,500	
Washington	1,000	1,200	100	100	80	80	8,000	8,000
Wayne	1,800	1,800	100	100	100	90	10,000	9,000
<b>Total</b>	<b>13,000</b>	<b>14,000</b>	<b>600</b>	<b>600</b>	<b>85</b>	<b>80</b>	<b>51,000</b>	<b>48,000</b>
<b>State Total</b>								
	50,000	60,000	7,000	6,000	70	65	490,000	390,000

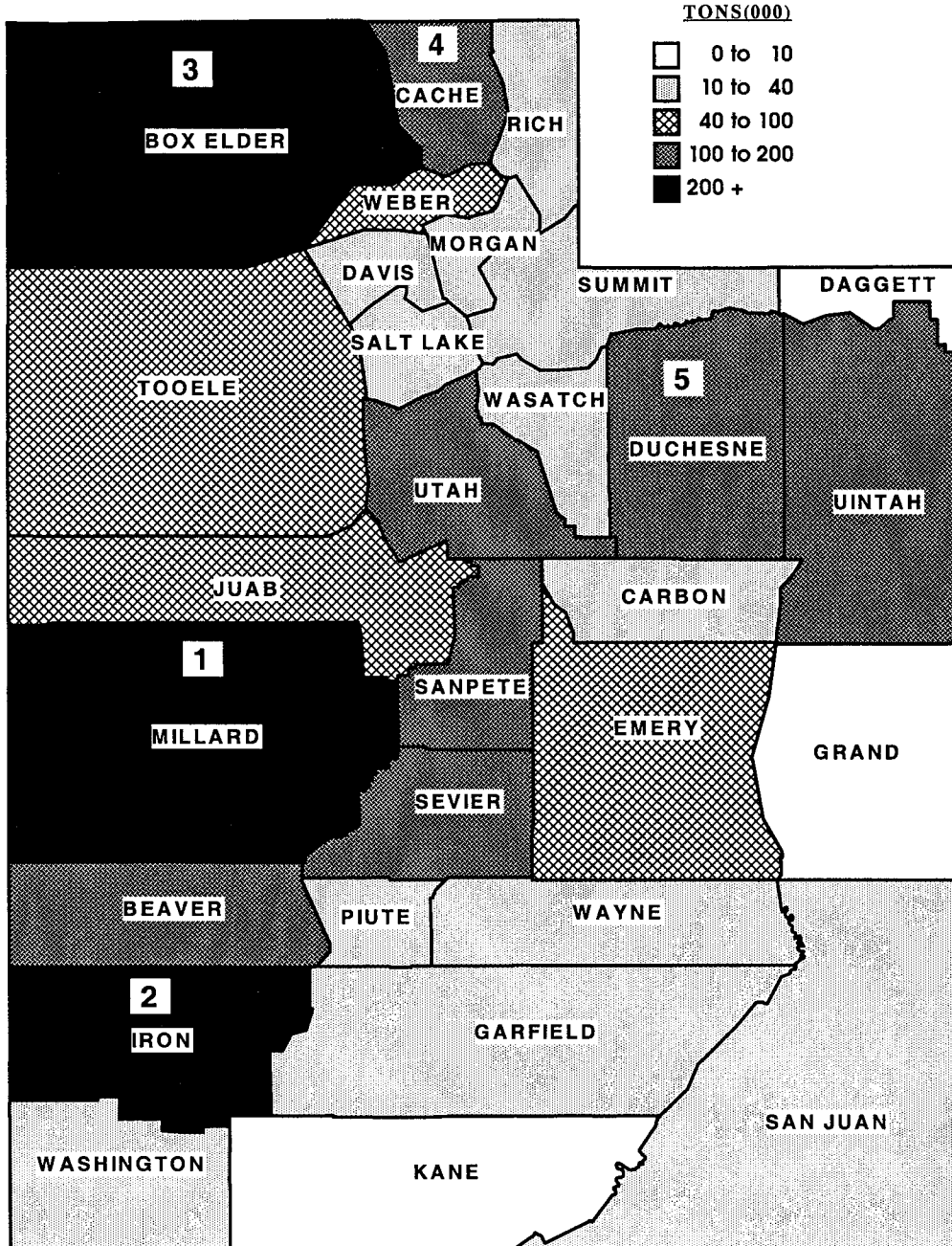
<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

## County Estimates: All Hay, All Cropping Practices, Utah, 2000 & 2001

District and County	Acres Harvested		Harvested Yield		Production	
	2000	2001	2000	2001	2000	2001
	<i>Acres</i>	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
<b>Northern</b>						
Box Elder	58,900	57,900	4.0	4.1	233,400	235,800
Cache	65,100	66,300	3.4	3.2	221,500	214,800
Davis	8,300	8,200	3.7	3.7	30,700	30,200
Morgan	9,700	9,400	3.0	3.0	28,900	28,600
Rich	47,300	47,700	1.7	1.7	80,500	82,900
Salt Lake	8,100	7,700	3.6	3.8	29,400	29,400
Tooele	15,100	14,400	3.5	3.5	52,200	50,600
Weber	17,500	17,700	4.2	4.2	74,000	73,500
<b>Total</b>	<b>230,000</b>	<b>229,300</b>	<b>3.3</b>	<b>3.3</b>	<b>750,600</b>	<b>745,800</b>
<b>Central</b>						
Juab	18,600	18,900	3.5	3.4	64,400	64,500
Millard	63,500	66,100	4.4	4.1	277,100	269,700
Sanpete	45,900	45,400	3.3	3.4	153,300	155,400
Sevier	27,700	27,800	4.1	4.1	113,800	113,800
Utah	39,300	38,400	3.8	4.0	150,400	153,100
<b>Total</b>	<b>195,000</b>	<b>196,600</b>	<b>3.9</b>	<b>3.8</b>	<b>759,000</b>	<b>756,500</b>
<b>Eastern</b>						
Carbon	5,900	6,000	3.2	3.2	18,900	18,900
Daggett	5,100	5,200	2.4	2.6	12,000	13,300
Duchesne	48,800	51,000	3.5	3.4	169,300	173,600
Emery	18,100	18,500	3.4	3.4	61,100	62,100
Grand	2,500	2,600	4.2	4.2	10,500	10,800
San Juan	7,300	7,600	2.4	2.3	17,600	17,500
Summit	17,500	18,300	2.3	2.3	41,100	42,600
Uintah	38,000	38,200	3.4	3.6	129,700	137,900
Wasatch	7,800	7,900	3.7	3.6	29,200	28,800
<b>Total</b>	<b>151,000</b>	<b>155,300</b>	<b>3.2</b>	<b>3.3</b>	<b>489,400</b>	<b>505,500</b>
<b>Southern</b>						
Beaver	26,100	26,500	4.3	4.4	111,500	117,500
Garfield	13,200	13,700	2.9	3.0	38,800	40,500
Iron	50,600	53,600	4.6	4.7	233,100	250,400
Kane	3,500	3,700	2.9	3.0	10,000	11,100
Piute	9,500	9,600	2.8	2.8	26,600	27,200
Washington	9,400	9,800	4.2	4.0	39,100	39,200
Wayne	11,700	11,900	3.6	3.6	41,900	42,300
<b>Total</b>	<b>124,000</b>	<b>128,800</b>	<b>4.0</b>	<b>4.1</b>	<b>501,000</b>	<b>528,200</b>
<b>State</b>						
<b>Total</b>	<b>700,000</b>	<b>710,000</b>	<b>3.6</b>	<b>3.6</b>	<b>2,500,000</b>	<b>2,536,000</b>

# UTAH ALFALFA HAY PRODUCTION

## By County, 2001



**County Estimates: Alfalfa & Alfalfa Mixtures for Hay,  
All Cropping Practices, Utah, 2000 & 2001**

District and County	Acres Harvested		Harvested Yield		Production	
	2000	2001	2000	2001	2000	2001
	<i>Acres</i>	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
<b>Northern</b>						
Box Elder	49,500	48,500	4.4	4.5	215,800	216,300
Cache	55,400	56,500	3.6	3.4	202,200	193,300
Davis	6,400	6,300	4.2	4.1	26,800	26,100
Morgan	8,100	7,700	3.1	3.2	25,500	24,900
Rich	11,000	10,500	2.2	2.2	23,900	22,900
Salt Lake	7,100	6,500	3.8	4.1	27,200	26,600
Tooele	12,800	12,000	3.8	3.9	48,300	46,300
Weber	14,700	14,500	4.6	4.5	67,300	65,600
<b>Total</b>	165,000	162,500	3.9	3.8	637,000	622,000
<b>Central</b>						
Juab	15,300	15,500	3.8	3.8	58,800	58,600
Millard	58,400	60,500	4.6	4.2	266,000	256,700
Sanpete	35,000	33,500	3.7	3.8	129,600	128,900
Sevier	24,700	24,500	4.3	4.3	106,200	105,200
Utah	30,600	29,000	4.3	4.5	131,400	130,600
<b>Total</b>	164,000	163,000	4.2	4.2	692,000	680,000
<b>Eastern</b>						
Carbon	4,800	4,800	3.5	3.5	16,700	16,600
Daggett	2,900	2,700	2.6	3.0	7,600	8,100
Duchesne	35,400	36,500	3.9	3.8	139,300	139,100
Emery	15,500	15,700	3.5	3.5	54,900	55,600
Grand	2,100	2,100	4.5	4.6	9,500	9,600
San Juan	6,300	6,400	2.4	2.3	15,400	15,000
Summit	8,500	8,700	2.8	2.7	23,500	23,100
Uintah	31,000	30,500	3.7	4.0	115,200	121,400
Wasatch	6,500	6,100	4.0	4.0	25,900	24,500
<b>Total</b>	113,000	113,500	3.6	3.6	408,000	413,000
<b>Southern</b>						
Beaver	23,400	23,500	4.5	4.7	104,800	109,600
Garfield	10,800	11,000	3.1	3.2	33,800	35,000
Iron	46,500	49,000	4.8	4.8	221,300	237,400
Kane	2,700	2,900	3.1	3.3	8,500	9,500
Piute	7,000	7,000	3.1	3.0	21,400	21,200
Washington	7,500	7,500	4.7	4.6	35,000	34,400
Wayne	10,100	10,100	3.8	3.8	38,200	37,900
<b>Total</b>	108,000	111,000	4.3	4.4	463,000	485,000
<b>State</b>						
<b>Total</b>	550,000	550,000	4.0	4.0	2,200,000	2,200,000

## County Estimates: Other Hay, All Cropping Practices, Utah, 2000 & 2001

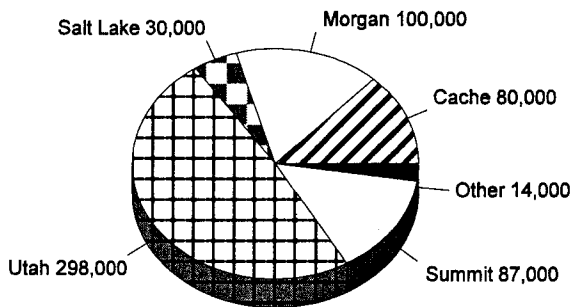
District and County	Acres Harvested		Harvested Yield		Production	
	2000	2001	2000	2001	2000	2001
	<i>Acres</i>	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>
<b>Northern</b>						
Box Elder	9,400	9,400	1.9	2.1	17,600	19,500
Cache	9,700	9,800	2.0	2.2	19,300	21,500
Davis	1,900	1,900	2.1	2.2	3,900	4,100
Morgan	1,600	1,700	2.1	2.2	3,400	3,700
Rich	36,300	37,200	1.6	1.6	56,600	60,000
Salt Lake	1,000	1,200	2.2	2.3	2,200	2,800
Tooele	2,300	2,400	1.7	1.8	3,900	4,300
Weber	2,800	3,200	2.4	2.5	6,700	7,900
<b>Total</b>	<b>65,000</b>	<b>66,800</b>	<b>1.7</b>	<b>1.9</b>	<b>113,600</b>	<b>123,800</b>
<b>Central</b>						
Juab	3,300	3,400	1.7	1.7	5,600	5,900
Millard	5,100	5,600	2.2	2.3	11,100	13,000
Sanpete	10,900	11,900	2.2	2.2	23,700	26,500
Sevier	3,000	3,300	2.5	2.6	7,600	8,600
Utah	8,700	9,400	2.2	2.4	19,000	22,500
<b>Total</b>	<b>31,000</b>	<b>33,600</b>	<b>2.2</b>	<b>2.3</b>	<b>67,000</b>	<b>76,500</b>
<b>Eastern</b>						
Carbon	1,100	1,200	2.0	1.9	2,200	2,300
Daggett	2,200	2,500	2.0	2.1	4,400	5,200
Duchesne	13,400	14,500	2.2	2.4	30,000	34,500
Emery	2,600	2,800	2.4	2.3	6,200	6,500
Grand	400	500	2.5	2.4	1,000	1,200
San Juan	1,000	1,200	2.2	2.1	2,200	2,500
Summit	9,000	9,600	2.0	2.0	17,600	19,500
Uintah	7,000	7,700	2.1	2.1	14,500	16,500
Wasatch	1,300	1,800	2.5	2.4	3,300	4,300
<b>Total</b>	<b>38,000</b>	<b>41,800</b>	<b>2.1</b>	<b>2.2</b>	<b>81,400</b>	<b>92,500</b>
<b>Southern</b>						
Beaver	2,700	3,000	2.5	2.6	6,700	7,900
Garfield	2,400	2,700	2.1	2.0	5,000	5,500
Iron	4,100	4,600	2.9	2.8	11,800	13,000
Kane	800	800	1.9	2.0	1,500	1,600
Piute	2,500	2,600	2.1	2.3	5,200	6,000
Washington	1,900	2,300	2.2	2.1	4,100	4,800
Wayne	1,600	1,800	2.3	2.4	3,700	4,400
<b>Total</b>	<b>16,000</b>	<b>17,800</b>	<b>2.4</b>	<b>2.4</b>	<b>38,000</b>	<b>43,200</b>
<b>State Total</b>	<b>150,000</b>	<b>160,000</b>	<b>2.0</b>	<b>2.1</b>	<b>300,000</b>	<b>336,000</b>



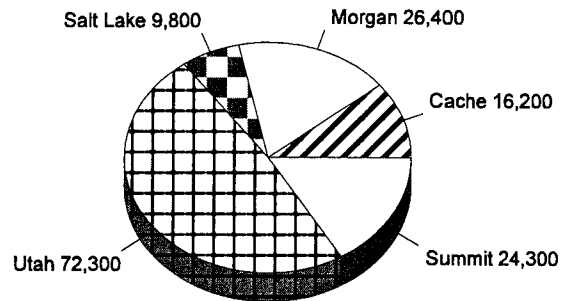
**County Estimates: Utah Mink Pelts Produced 2000 and 2001  
Females Bred to Produce Kits 2001 and 2002**

District and County	Pelts Produced		Females Bred to Produce Kits	
	2000 Number	2001 Number	2001 Number	2002 Number
<b>Northern</b>				
Cache	75,000	80,000	19,900	16,200
Morgan	86,000	100,000	25,400	26,400
Salt Lake	46,000	30,000	8,900	9,800
Other Counties	15,000	14,000	3,600	
<b>Total</b>	<b>222,000</b>	<b>224,000</b>	<b>57,800</b>	<b>52,400</b>
<b>Central</b>				
Utah	305,000	298,000	70,500	72,300
Other Counties	10,000			
<b>Total</b>	<b>315,000</b>	<b>299,000</b>	<b>70,500</b>	<b>72,300</b>
<b>Eastern</b>				
Summit	53,000	87,000	16,700	24,300
Other Counties				
<b>Total</b>	<b>53,000</b>	<b>87,000</b>	<b>16,700</b>	<b>24,300</b>
<b>State</b>				
<b>Total</b>	<b>590,000</b>	<b>610,000</b>	<b>145,000</b>	<b>149,000</b>

**Mink Pelts Produced  
by County, Utah, 2001**

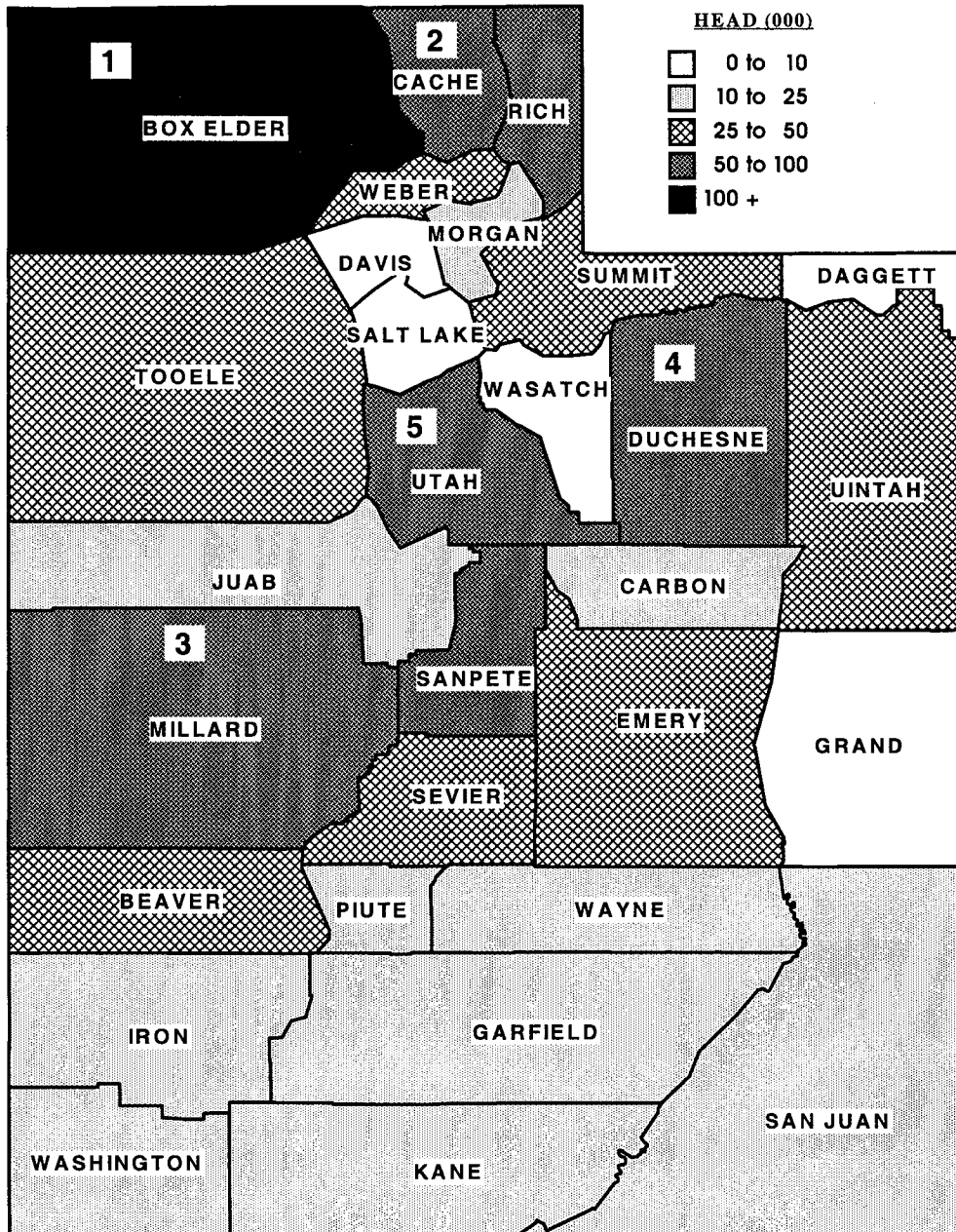


**Females Bred to Produce Kits  
by County, Utah, 2002**



# UTAH ALL CATTLE INVENTORY

By County, January 1, 2002



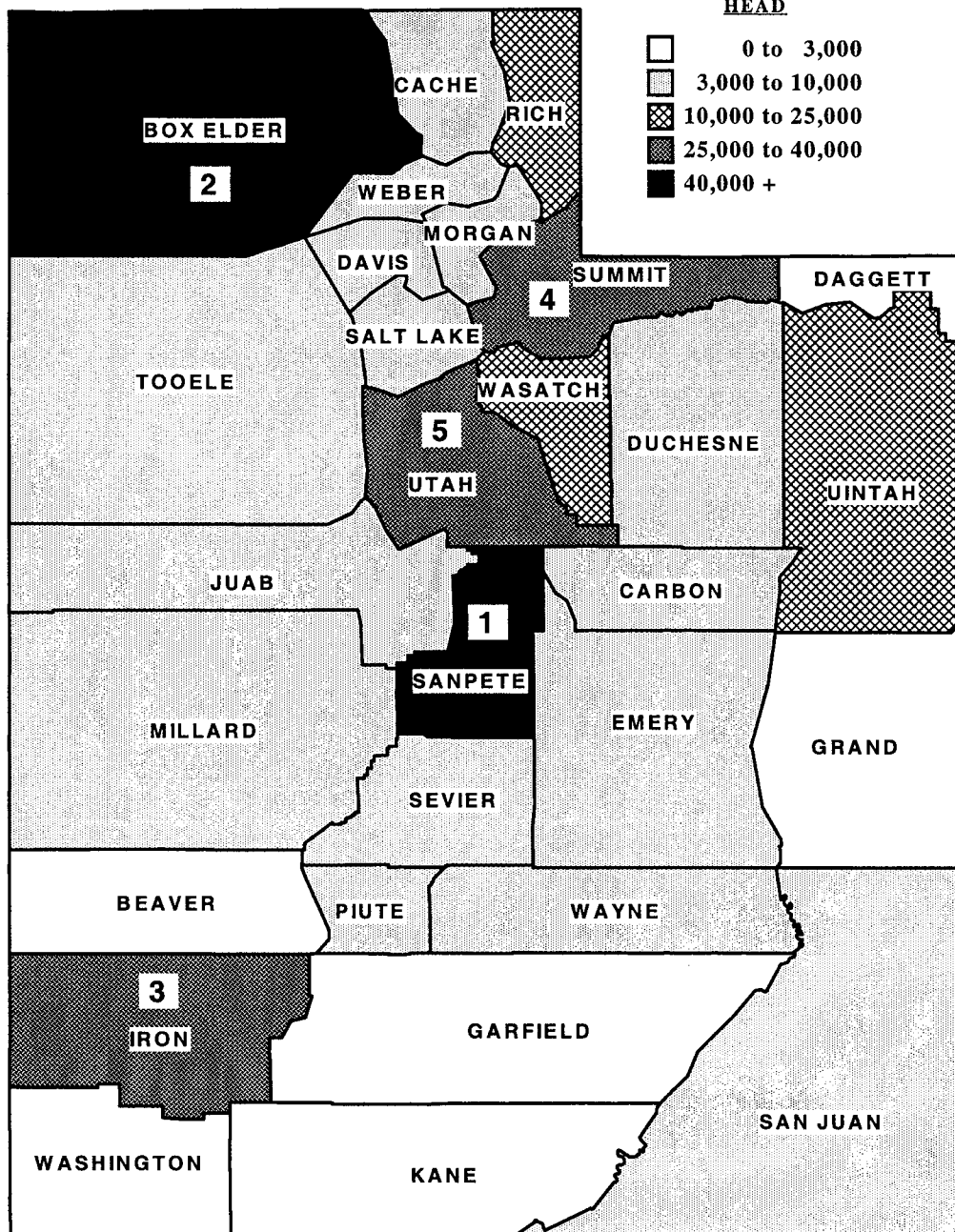
## County Estimates: Cattle, Utah, January 1, 2001 & 2002

County	All Cattle		Beef Cows		Milk Cows <sup>1</sup>	
	2001	2002	2001	2002	2001	2002
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
<b>Northern</b>						
Box Elder	108,000	110,000	39,000	41,000	10,500	11,000
Cache	71,000	76,000	7,500	8,000	24,000	23,500
Davis	7,500	8,000	4,000	3,500	500	500
Morgan	11,000	11,000	5,000	4,500	1,000	1,500
Rich	52,000	52,000	32,000	32,000		
Salt Lake	7,500	8,000	3,500	3,000		700
Tooele	27,000	28,000	13,000	13,000		
Weber	25,000	27,000	7,000	7,000	5,500	5,500
Other Counties					1,500	300
<b>Total</b>	<b>309,000</b>	<b>320,000</b>	<b>111,000</b>	<b>112,000</b>	<b>43,000</b>	<b>43,000</b>
<b>Central</b>						
Juab	19,000	17,000	7,000	8,000		500
Millard	67,000	67,000	20,000	21,000	12,000	12,500
Sanpete	55,000	54,000	19,000	18,000	6,700	6,200
Sevier	45,000	44,000	11,000	12,000		5,300
Utah	65,000	63,000	20,000	20,000	8,300	8,500
Other Counties					6,000	
<b>Total</b>	<b>251,000</b>	<b>245,000</b>	<b>77,000</b>	<b>79,000</b>	<b>33,000</b>	<b>33,000</b>
<b>Eastern</b>						
Carbon	11,000	11,000	6,000	6,000		
Daggett	4,000	4,000	2,000	2,000		
Duchesne	65,000	66,000	32,000	32,000	3,200	2,500
Emery	27,000	27,000	13,000	13,000	700	500
Grand	3,000	2,500	2,000	2,000		
San Juan	19,000	20,000	11,000	11,000		
Summit	26,000	27,000	14,000	14,000	1,800	2,000
Uintah	46,000	49,000	23,000	23,000	2,000	2,000
Wasatch	9,000	8,500	3,000	3,000	1,000	1,000
Other Counties					300	
<b>Total</b>	<b>210,000</b>	<b>215,000</b>	<b>106,000</b>	<b>106,000</b>	<b>9,000</b>	<b>8,000</b>
<b>Southern</b>						
Beaver	36,000	35,000	12,000	12,000	3,400	3,000
Garfield	20,000	20,000	11,500	11,000		
Iron	25,000	24,000	10,000	10,000	2,500	2,500
Kane	10,000	10,000	5,500	5,500		
Piute	12,000	11,000	4,500	4,000	1,800	1,800
Washington	17,000	19,000	9,000	9,000		
Wayne	20,000	21,000	8,500	8,500	2,000	1,600
Other Counties					300	100
<b>Total</b>	<b>140,000</b>	<b>140,000</b>	<b>61,000</b>	<b>60,000</b>	<b>10,000</b>	<b>9,000</b>
<b>State</b>						
<b>Total</b>	<b>910,000</b>	<b>920,000</b>	<b>355,000</b>	<b>357,000</b>	<b>95,000</b>	<b>93,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

# UTAH BREEDING SHEEP INVENTORY

By County, January 1, 2002

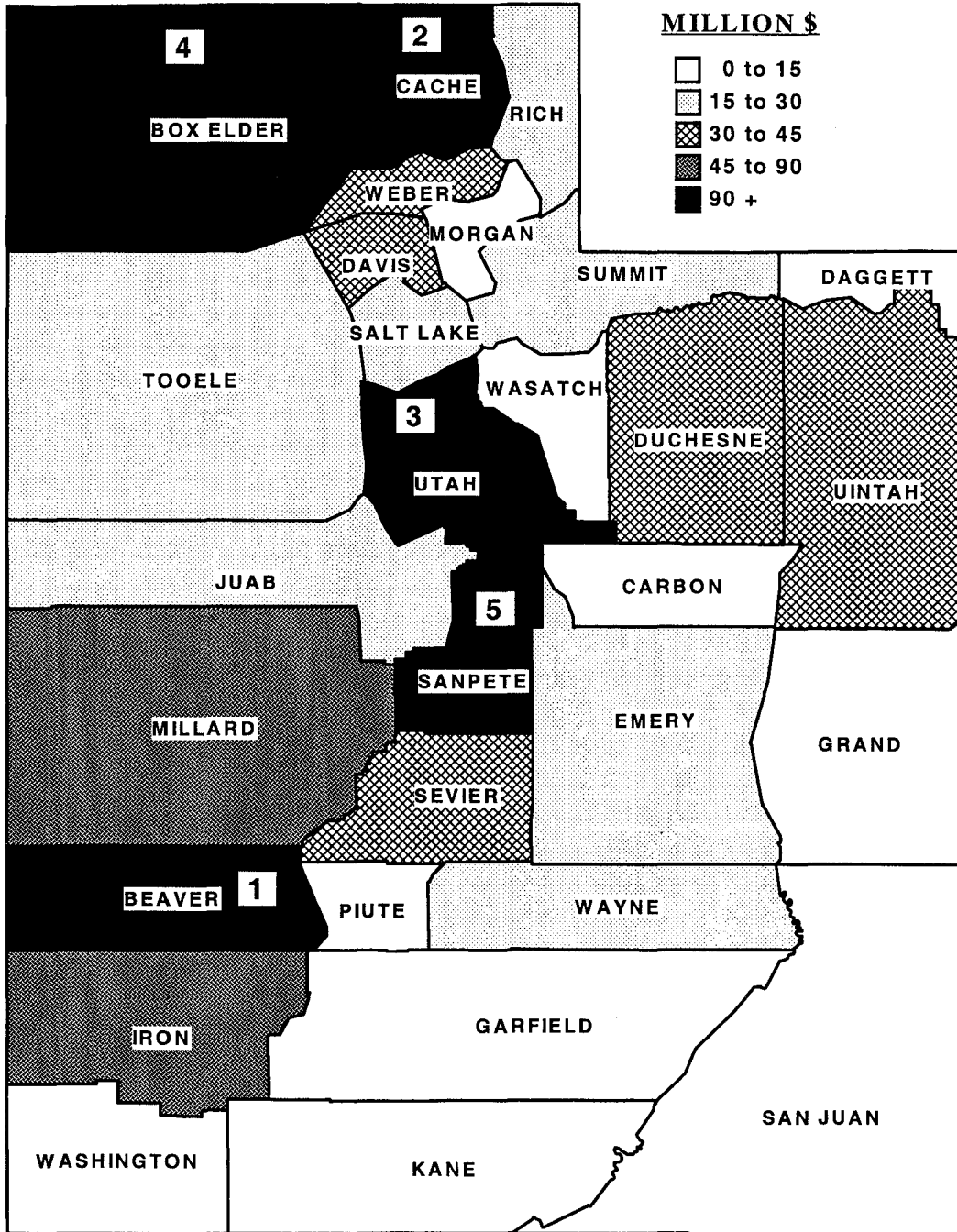


## County Estimates: Breeding Sheep and Lambs, Utah, January 1, 2001 & 2002 <sup>1</sup>

District and County	2001 <i>Number</i>	2002 <i>Number</i>
<b>Northern</b>		
Box Elder	57,500	48,000
Cache	3,800	4,400
Davis	3,000	3,100
Morgan	12,800	9,300
Rich	12,700	12,000
Salt Lake	4,500	3,300
Tooele	5,600	4,000
Weber	5,100	4,900
<b>Total</b>	<b>105,000</b>	<b>89,000</b>
<b>Central</b>		
Juab	8,300	7,500
Millard	6,600	6,300
Sanpete	63,200	61,000
Sevier	4,800	4,400
Utah	32,100	28,800
<b>Total</b>	<b>115,000</b>	<b>108,000</b>
<b>Eastern</b>		
Carbon	5,800	5,400
Daggett		
Duchesne	8,000	7,300
Emery	4,500	3,900
Grand		
San Juan		6,300
Summit	30,000	29,300
Uintah	12,000	10,600
Wasatch	14,000	12,000
Other Counties	7,700	200
<b>Total</b>	<b>82,000</b>	<b>75,000</b>
<b>Southern</b>		
Beaver		
Garfield	1,800	1,800
Iron	34,000	33,500
Kane	1,100	1,200
Piute	4,000	4,400
Washington		
Wayne	6,400	6,200
Other Counties	700	900
<b>Total</b>	<b>48,000</b>	<b>48,000</b>
<b>State</b>		
<b>Total</b>	<b>350,000</b>	<b>320,000</b>

<sup>1</sup> Counties with missing data are included in the appropriate district's "Other Counties".

# UTAH CASH RECEIPTS FROM FARMING By County, 2001



## County Estimates: Cash Receipts from Farming, by County - 2000 Revised, 2001

District and County	Livestock and Livestock Products		Crops		Total	
	2000	2001	2000	2001	2000	2001
	<i>Million Dollars</i>	<i>Million Dollars</i>	<i>Million Dollars</i>	<i>Million Dollars</i>	<i>Million Dollars</i>	<i>Million Dollars</i>
<b>Northern</b>						
Box Elder	66.8	76.2	33.1	33.9	100.0	110.1
Cache	83.7	100.7	16.9	17.1	100.6	117.8
Davis	5.4	6.0	30.7	32.6	36.1	38.6
Morgan	10.9	12.2	1.8	1.9	12.7	14.1
Rich	21.5	22.2	3.9	4.4	25.4	26.7
Salt Lake	15.0	16.3	12.6	13.0	27.5	29.3
Tooele	12.7	13.3	3.2	3.5	16.0	16.8
Weber	22.4	26.9	8.5	9.0	30.9	35.9
Other Counties						
<b>Total</b>	<b>238.4</b>	<b>273.9</b>	<b>110.7</b>	<b>115.4</b>	<b>349.1</b>	<b>389.3</b>
<b>Central</b>						
Juab	9.7	8.8	7.9	7.6	17.6	16.5
Millard	55.7	66.4	16.4	18.5	72.1	84.9
Sanpete	85.6	89.3	8.1	9.7	93.7	99.0
Sevier	31.3	34.9	6.2	7.1	37.5	42.0
Utah	67.6	73.5	40.6	37.9	108.2	111.4
Other Counties						
<b>Total</b>	<b>249.8</b>	<b>272.9</b>	<b>79.3</b>	<b>80.8</b>	<b>329.1</b>	<b>353.7</b>
<b>Eastern</b>						
Carbon	5.0	4.9	1.1	1.2	6.1	6.1
Daggett	1.7	1.8	0.5	0.7	2.2	2.5
Duchesne	32.7	34.5	8.0	9.5	40.8	43.9
Emery	12.5	12.9	3.1	3.7	15.6	16.5
Grand	3.6	3.4	1.2	1.3	4.8	4.7
San Juan	8.3	8.6	3.8	3.6	12.1	12.1
Summit	17.8	20.9	1.8	2.2	19.6	23.1
Uintah	23.4	26.6	6.4	7.9	29.8	34.5
Wasatch	6.5	6.8	2.0	2.2	8.5	9.0
Other Counties						
<b>Total</b>	<b>111.5</b>	<b>120.3</b>	<b>28.0</b>	<b>32.1</b>	<b>139.5</b>	<b>152.5</b>
<b>Southern</b>						
Beaver	113.5	110.8	5.9	7.2	119.4	117.9
Garfield	8.5	8.6	1.8	2.2	10.3	10.8
Iron	16.9	30.1	13.9	16.7	30.7	46.8
Kane	4.1	4.3	0.5	0.6	4.7	5.0
Piute	8.5	9.3	1.3	1.5	9.8	10.8
Washington	8.2	9.4	3.9	3.9	12.1	13.2
Wayne	12.7	13.6	2.3	2.7	15.0	16.3
Other Counties						
<b>Total</b>	<b>172.4</b>	<b>186.1</b>	<b>29.5</b>	<b>34.8</b>	<b>201.9</b>	<b>220.9</b>
<b>State Total</b>	<b>772.0</b>	<b>853.3</b>	<b>247.6</b>	<b>263.1</b>	<b>1,019.6</b>	<b>1,116.3</b>

# 1997 Census of Agriculture

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

District and County	Gross Value of Sales													
	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/
<b>Northern</b>														
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
<b>Central</b>														
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
<b>Eastern</b>														
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
<b>Southern</b>														
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
<b>State</b>														
<b>Total . . . . .</b>	<b>4,226</b>	<b>29.8</b>	<b>1,867</b>	<b>13.2</b>	<b>1,904</b>	<b>13.4</b>	<b>2,270</b>	<b>16.0</b>	<b>1,328</b>	<b>9.4</b>	<b>949</b>	<b>6.7</b>	<b>1,637</b>	<b>11.5</b>

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	Total Land in Farms											
	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/
<b>Northern</b>												
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
<b>Central</b>												
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
<b>Eastern</b>												
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
<b>Southern</b>												
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
<b>State</b>												
<b>Total</b> .....	<b>2,590</b>	<b>18.3</b>	<b>3,978</b>	<b>28.1</b>	<b>3,245</b>	<b>22.9</b>	<b>2,042</b>	<b>14.4</b>	<b>945</b>	<b>6.7</b>	<b>1,381</b>	<b>9.7</b>

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.

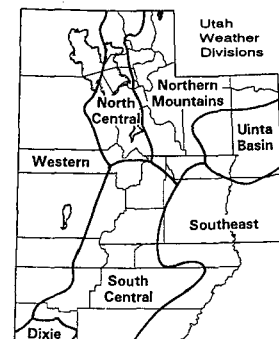
**1997 Census of Agriculture: Farms, Land in Farms, and Selected Items, by County, Utah 1/**

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
	<i>Number</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Dollars</i>	<i>Dollars</i>
<b>Northern</b>								
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
<b>Central</b>								
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
<b>Eastern</b>								
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
<b>Southern</b>								
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
<b>State</b>								
<b>Total .....</b>	<b>14,181</b>	<b>12,024,661</b>	<b>848</b>	<b>2,069,751</b>	<b>1,107,928</b>	<b>1,212,201</b>	<b>486,235</b>	<b>575</b>

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

# Weather

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## Weather Data

The tables below provide summary climate information for the year 2001 and a comparison to the revised 1971-2000 preliminary normals. Summary values for each climatic division are based upon available weather data from stations within the division. Values for selected weather

stations in each climatic division are shown in the tables on the following pages and that data along with other weather stations are included in the summary for each climatic division. The areas covered by each division in Utah are shown on the map at the right.

## Precipitation Summary

Annual precipitation for Utah for 2001 was 79 percent of the 1971-2000 normal for the year 2001. The monthly values ranged from less than 10 percent of normal in May in the Western Division in May to about 150 percent of normal in the Southeast Division in the

early months of the year. Precipitation was above normal in January and February in the eastern portion of Utah, but fell below normal for much of the rest of the year. Palmer Drought indices showed all divisions in drought conditions throughout much of the year.

**Precipitation: Percent of Normal, by Climate Division, 2001**

Division	Month												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Western .....	67	76	100	113	9	24	75	89	15	22	143	187	70
Dixie .....	84	105	89	150	46	52	45	73	4	20	60	117	75
N. Central .....	41	95	71	125	16	58	111	41	10	49	177	128	76
S. Central .....	107	112	86	129	63	64	109	99	13	30	135	98	86
N. Mountains ....	33	74	51	146	34	34	77	89	18	69	162	117	77
Uintah Basin .....	100	133	76	134	22	32	93	72	12	77	48	54	68
Southeast .....	156	148	92	104	102	74	119	156	19	20	129	96	99

## Temperature Summary

Average temperature for Utah in 2001 was 103 percent of normal. Temperatures averaged near normal in January and February, but were warmer than normal for all divisions for the remainder of the year until

December. Snowfall in late November and December resulted in December temperatures falling 10 to 20 percent below normal.

**Mean Temperature: Percent of Normal (Degrees Fahrenheit), by Climate Division, 2001**

Division	Month												Annual
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Western .....	96	101	95	100	108	103	101	105	106	106	108	89	103
Dixie .....	103	99	106	101	108	101	100	103	105	106	108	94	100
N. Central .....	92	102	107	101	108	104	103	105	108	106	111	88	104
S. Central .....	99	101	105	102	108	103	101	103	105	106	106	87	103
N. Mountains ....	94	99	106	101	108	103	103	105	108	106	118	85	104
Uintah Basin .....	122	123	111	104	105	103	102	103	105	104	112	75	105
Southeast .....	105	103	105	104	106	104	102	101	106	106	111	93	104

## Mean Monthly Temperature (Degrees Fahrenheit), by Months, Utah, 2001

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	26.7	33.4	45.1	49.9	61.0	67.9	74.1	75.5	66.9	52.6	40.5	27.2	51.7
Delta .....	25.8	34.1	43.3	49.0	62.0	68.5	75.5	75.8	65.5	51.3	38.1	23.6	51.0
Enterprise Beryl Jct .....	27.2	33.2	41.8	46.0	57.7	63.4	69.6	69.7	61.6	51.3	M	23.1	49.5
Eskdale .....	23.8	33.9	45.2	49.3	63.2	70.5	75.3	75.9	66.6	54.5	40.0	26.3	52.0
Modena .....	31.2	36.7	M	47.6	60.8	67.6	71.9	M	64.8	55.5	41.5	26.7	52.0
Rosette .....	22.9	28.0	38.5	42.8	58.0	63.9	73.8	75.5	65.2	50.5	38.5	21.9	48.3
<b>Average</b> .....	26.3	33.2	38.5	47.4	60.5	67.0	73.4	74.5	65.1	52.6	39.7	24.8	50.8
<b>Dixie</b>													
St. George .....	43.4	48.0	56.8	62.7	76.3	M	87.0	86.4	79.7	66.7	53.0	40.0	61.3
Zion Nat'l Park .....	41.2	43.7	54.0	57.9	72.8	79.9	83.0	84.7	78.7	66.9	53.2	37.8	62.8
<b>Average</b> .....	42.3	45.9	55.4	60.3	74.6	79.9	85.0	85.6	79.2	66.8	53.1	38.9	62.1
<b>North Central</b>													
Farmington USU Fld Stn ..	29.0	35.3	46.1	51.2	63.8	70.2	78.5	77.7	69.9	55.9	43.7	27.8	54.1
Logan USU .....	18.5	28.2	41.1	46.7	60.0	66.6	76.0	76.0	67.6	53.0	40.9	21.0	49.6
Ogden Pioneer PH .....	27.9	32.6	44.6	49.5	62.9	68.3	78.0	78.2	69.7	55.3	43.8	26.6	53.1
Pleasant Grove .....	29.9	36.8	45.2	49.9	62.1	69.3	76.4	75.8	68.1	55.2	43.9	27.9	53.4
Provo BYU .....	32.0	38.4	47.7	52.3	64.2	72.0	77.5	78.1	70.3	56.9	44.9	29.7	55.3
Richmond .....	16.0	28.0	41.1	47.1	58.5	M	74.4	74.7	66.5	51.7	39.2	19.4	47.0
Salt Lake City Airport .....	27.3	34.4	45.4	50.1	63.6	70.9	79.4	79.0	70.2	55.0	42.6	26.3	53.7
Santaquin Chlor .....	28.3	35.0	44.7	49.7	62.4	70.1	78.8	77.9	70.8	55.7	42.9	26.8	53.6
Tooele .....	27.7	35.1	45.2	51.3	64.7	72.0	79.0	80.0	71.7	57.7	43.2	28.0	54.6
Tremonton .....	20.4	31.6	45.4	48.5	62.1	67.9	77.7	77.2	67.6	53.6	42.5	22.1	51.4
<b>Average</b> .....	25.7	33.5	44.7	49.6	62.4	70.2	77.6	77.5	69.2	55.0	42.8	25.6	52.6
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq ..	22.3	24.6	32.7	37.8	50.4	59.3	62.6	61.5	55.5	47.6	33.1	20.4	42.3
Escalante .....	28.6	34.3	44.9	50.9	63.0	70.5	73.2	72.5	67.4	56.6	41.7	29.3	52.7
Fillmore .....	28.4	35.9	45.6	50.6	63.4	70.6	75.5	76.3	68.6	56.3	43.1	27.1	53.4
Kanab .....	34.6	39.1	47.1	51.8	64.8	70.5	73.8	74.5	68.5	58.4	44.9	32.2	55.0
Koosharem .....	23.6	29.4	36.9	43.1	53.5	61.4	65.0	65.0	57.9	46.9	35.6	21.3	45.3
Levan .....	29.8	34.3	43.1	47.7	60.4	67.3	73.5	74.2	66.2	53.3	40.9	23.2	51.2
Manti .....	27.1	32.4	41.2	46.9	57.8	65.0	70.7	70.2	62.8	50.2	37.5	20.2	48.5
Nephi .....	24.1	29.4	40.3	47.7	61.3	62.5	76.9	77.6	67.5	55.6	41.0	24.3	50.7
Panguitch .....	24.2	32.1	39.4	45.9	57.0	65.0	68.7	68.2	60.5	49.0	35.8	22.8	47.4
Richfield Radio K SVC .....	29.5	35.5	43.3	49.0	59.8	66.9	70.8	71.1	63.6	52.1	38.6	27.5	50.6
<b>Average</b> .....	27.2	32.7	41.5	47.1	59.1	65.9	71.1	71.1	63.9	52.6	39.2	24.8	49.7
<b>Northern Mountains</b>													
Heber .....	24.9	32.2	41.2	47.5	59.6	65.5	71.4	71.2	63.7	51.9	39.2	21.0	49.1
Morgan Como Springs .....	20.2	27.2	39.0	45.3	55.2	62.2	72.6	72.2	63.5	50.5	48.4	21.0	48.1
Olmstead Powerhouse .....	31.1	36.7	45.7	49.7	63.5	71.0	77.8	78.6	69.8	57.0	45.5	30.5	54.7
Scofield-Skyline Mine .....	20.5	22.8	31.7	36.2	47.7	54.9	60.2	60.6	55.0	43.5	32.7	20.0	40.5
Silver Lake Brighton .....	19.5	19.7	28.4	31.9	44.7	52.1	60.6	60.6	53.4	40.3	30.1	17.2	38.2
Woodruff .....	11.1	15.3	29.2	40.3	50.9	57.2	64.2	64.0	55.2	42.8	31.4	8.7	39.2
<b>Average</b> .....	21.2	25.7	35.9	41.8	53.6	60.5	67.8	67.9	60.1	47.7	37.9	19.7	45.0
<b>Uintah Basin</b>													
Duchesne .....	22.3	29.2	42.0	47.8	58.7	65.7	70.8	69.7	63.2	50.0	37.4	19.1	48.0
Jensen .....	24.0	31.7	44.3	50.7	61.2	68.9	74.6	73.8	65.5	50.9	38.9	14.2	49.9
Roosevelt Radio .....	20.5	30.1	42.7	49.5	59.5	67.7	73.2	71.7	63.3	49.7	36.1	14.0	48.2
Vernal Airport .....	23.3	31.0	41.7	49.1	58.7	67.5	72.5	71.2	62.9	50.2	37.6	17.3	48.6
<b>Average</b> .....	22.5	30.5	42.7	49.3	59.5	67.5	72.8	71.6	63.7	50.2	37.5	16.2	48.7
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	32.4	39.9	49.1	57.6	68.8	78.9	83.8	80.9	74.7	60.5	48.0	31.4	58.8
Blanding .....	31.5	35.6	45.1	51.6	63.0	72.4	75.5	73.5	70.2	57.5	44.6	29.8	54.2
Ferron .....	25.5	28.9	42.5	49.0	61.4	69.6	74.3	73.0	67.1	53.5	40.6	22.0	50.6
Hanksville .....	27.9	36.8	48.9	57.2	66.3	75.8	81.2	79.5	70.8	56.9	42.9	28.1	56.0
Moab .....	33.3	41.4	49.9	59.3	69.3	78.1	83.2	80.0	73.2	60.2	47.6	32.1	59.0
Monticello .....	25.1	30.0	39.2	46.2	56.9	65.7	70.2	67.7	62.2	50.3	37.3	22.3	47.8
<b>Average</b> .....	29.3	35.4	45.8	53.5	64.3	73.4	78.0	75.8	69.7	56.5	43.5	27.6	54.4

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

## Normal Mean Monthly Temperature (Degrees Fahrenheit), by Months, Utah, 1971-2000

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	26.8	33.1	42.2	49.2	57.3	66.4	73.5	72.0	61.9	49.8	37.3	28.1	49.8
Delta .....	26.2	32.9	41.6	48.4	57.5	67.2	74.5	72.9	63.0	50.6	37.0	26.8	49.9
Enterprise Beryl Jct .....	27.3	32.7	39.6	45.7	54.2	63.2	70.1	68.6	59.9	48.6	36.2	27.7	47.8
Eskdale .....	28.3	34.0	42.1	49.5	58.0	67.7	74.9	73.0	63.0	51.0	38.2	28.9	50.7
Modena .....	28.7	34.0	40.8	47.4	55.7	65.4	71.9	70.3	61.8	50.4	37.6	29.3	49.4
Rosette .....	26.7	31.0	37.9	43.4	52.8	60.4	70.1	70.1	60.6	47.5	34.0	25.5	46.7
<b>Average</b> .....	27.3	33.0	40.7	47.3	55.9	65.1	72.5	71.2	61.7	49.6	36.7	27.7	49.1
<b>Dixie</b>													
St. George .....	41.4	47.1	54.0	61.2	70.6	80.0	86.1	84.3	76.0	63.4	49.2	41.4	62.9
Zion Nat'l Park .....	40.8	45.7	51.0	58.0	67.3	77.8	83.8	81.9	74.7	63.2	49.2	41.4	61.2
<b>Average</b> .....	41.1	46.4	52.5	59.6	69.0	78.9	85.0	83.1	75.4	63.3	49.2	41.4	62.1
<b>North Central</b>													
Farmington USU Fld Stn ..	29.4	34.5	42.8	50.4	58.9	68.5	76.0	74.4	64.7	52.7	39.6	30.4	51.9
Logan USU .....	24.5	28.9	38.5	46.7	55.5	64.8	72.9	72.0	61.9	50.2	36.2	25.9	48.2
Ogden Pioneer PH .....	28.9	33.9	42.8	50.5	59.2	69.0	76.7	75.3	65.2	53.2	39.6	30.3	52.0
Pleasant Grove .....	29.4	34.6	42.9	49.9	58.4	67.6	74.7	73.3	64.2	52.6	39.9	30.8	51.5
Provo BYU .....	30.7	35.4	44.8	52.0	60.5	69.5	76.4	75.5	65.9	53.3	40.9	31.7	53.1
Richmond .....	23.2	28.2	38.0	46.2	54.5	63.8	71.7	70.8	61.0	48.9	35.1	24.6	47.2
SLC Airport NWSFO .....	29.5	34.8	43.5	50.3	59.2	69.6	77.8	76.4	65.8	53.2	40.1	30.6	52.6
Santaquin Chlor .....	27.9	32.9	40.6	47.4	57.1	67.0	74.8	73.2	63.1	51.0	37.7	28.8	50.1
Tooele .....	29.2	34.0	41.7	49.2	58.1	68.1	75.7	74.1	64.1	51.9	38.6	30.1	51.2
Tremonton .....	25.8	30.7	41.1	48.9	57.1	66.3	74.0	73.5	63.1	50.3	36.9	26.9	49.6
<b>Average</b> .....	27.9	32.8	41.7	49.2	57.8	67.4	75.1	73.9	63.9	51.7	38.5	29.0	50.7
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq ..	23.0	25.5	31.8	38.6	47.2	56.8	62.9	60.9	53.3	42.7	30.7	24.0	41.4
Escalante .....	28.9	34.6	41.8	48.8	57.5	66.9	72.7	70.4	62.3	51.5	38.9	30.6	50.4
Fillmore .....	28.9	34.6	42.6	49.5	58.0	67.8	74.9	73.3	64.4	52.2	39.0	29.4	51.2
Kanab .....	35.7	40.4	45.5	51.9	60.1	69.5	75.2	73.6	66.6	56.0	43.9	36.7	54.6
Koosharem .....	24.5	28.5	35.1	41.5	49.7	59.0	65.3	63.5	56.0	45.0	33.1	25.5	43.9
Levan .....	26.7	32.3	40.4	47.3	55.9	65.8	73.1	71.6	62.9	50.9	38.0	27.8	49.4
Manti .....	26.3	31.1	39.1	46.1	54.5	63.8	70.4	68.8	60.4	49.4	36.6	27.6	47.9
Nephi .....	28.7	33.7	41.9	48.8	57.6	67.3	74.4	72.9	63.8	51.7	38.8	29.3	50.7
Panguitch .....	24.9	29.7	36.7	43.1	51.5	60.1	66.3	64.3	56.8	46.1	34.1	25.9	45.0
Richfield Radio KSVC .....	27.1	33.4	41.2	47.4	55.6	64.5	70.8	69.0	60.9	49.7	37.4	28.8	48.8
<b>Average</b> .....	27.5	32.4	39.6	46.3	54.8	64.2	70.6	68.8	60.7	49.5	37.1	28.6	48.3
<b>Northern Mountains</b>													
Heber .....	23.0	27.5	37.1	44.7	52.9	61.0	67.9	66.8	58.3	47.5	34.9	24.8	45.5
Morgan Como Springs ...	24.2	29.0	38.3	46.0	54.3	63.1	69.8	68.3	59.2	48.2	35.1	25.3	46.7
Olmstead Powerhouse ...	30.1	34.7	42.9	50.5	58.5	68.2	75.1	74.0	64.8	53.3	40.0	31.1	51.9
Scofield-Skyline Mine ...	21.9	23.4	28.9	35.4	43.6	53.1	59.9	59.1	50.4	40.2	28.0	21.4	38.8
Silver Lake Brighton .....	20.0	21.8	26.2	32.3	40.7	50.4	58.1	56.9	48.9	38.2	26.0	20.2	36.6
Woodruff .....	15.7	19.3	30.5	39.3	48.0	56.3	62.5	61.1	52.1	41.4	27.8	17.3	39.3
<b>Average</b> .....	22.5	26.0	34.0	41.4	49.7	58.7	65.6	64.4	55.6	44.8	32.0	23.4	43.1
<b>Uintah Basin</b>													
Duchesne .....	20.5	26.1	38.8	47.5	56.1	64.8	70.4	69.2	60.1	48.1	33.7	22.6	46.5
Jensen .....	17.2	24.1	38.3	47.7	57.1	65.8	71.9	69.8	60.6	48.4	33.4	21.1	46.3
Roosevelt Radio .....	17.4	24.1	38.4	48.0	57.4	66.4	72.3	70.7	61.4	48.8	33.5	21.2	46.6
Vernal Airport .....	18.6	25.0	38.0	47.0	56.1	65.4	71.5	69.6	60.1	47.5	33.0	21.6	46.1
<b>Average</b> .....	18.4	24.8	38.4	47.6	56.7	65.6	71.5	69.8	60.6	48.2	33.4	21.6	46.4
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	31.4	38.8	48.7	56.1	66.1	76.4	82.6	81.2	71.2	57.2	43.3	33.2	57.2
Blanding .....	29.3	35.0	41.6	48.7	58.0	68.4	73.9	72.1	64.1	52.3	39.2	31.2	51.1
Ferron .....	24.1	30.4	39.6	47.4	56.7	66.5	72.6	70.6	62.0	50.3	36.1	26.5	48.6
Hanksville .....	26.4	35.0	45.3	53.9	63.6	73.6	79.6	77.2	67.2	53.6	38.7	28.8	53.6
Moab .....	31.6	39.2	49.5	57.4	66.5	76.0	81.9	80.3	71.0	57.8	43.5	33.4	57.3
Monticello .....	24.1	29.0	36.6	44.3	52.9	62.4	68.4	66.5	58.6	47.2	34.2	25.9	45.9
<b>Average</b> .....	27.8	34.6	43.6	51.3	60.6	70.6	76.5	74.7	65.7	53.1	39.2	29.8	52.3

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

### Total Precipitation (Inches), by Months, Utah, 2001

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	0.14	0.59	1.00	0.65	0.00	0.06	0.35	0.91	0.27	0.01	0.27	0.22	4.47
Delta .....	0.28	0.29	0.73	0.63	0.13	0.11	0.61	0.39	0.05	0.17	1.04	0.62	5.05
Enterprise Beryl Jct .....	0.73	1.22	1.49	0.90	0.16	0.21	0.88	1.31	0.00	0.33	M	0.89	8.12
Eskdale .....	0.22	0.20	0.52	0.73	0.15	0.01	0.34	0.81	0.06	0.06	0.61	0.47	4.18
Modena .....	0.78	0.62	M	1.32	0.03	0.30	0.97	M	0.00	0.25	0.62	1.32	6.21
Rosette .....	0.77	0.46	0.82	0.95	0.06	0.23	0.44	0.38	0.36	0.42	1.62	1.74	8.25
<b>Average</b> .....	0.49	0.56	0.91	0.86	0.09	0.15	0.60	0.76	0.12	0.21	0.83	0.88	6.46
<b>Dixie</b>													
St. George .....	0.79	1.17	1.45	0.86	0.14	0.03	0.21	0.37	0.00	0.29	0.52	0.79	6.62
Zion Nat'l Park .....	1.86	1.91	1.69	1.64	0.48	0.30	0.62	1.30	0.07	0.09	0.77	1.17	11.90
<b>Average</b> .....	1.33	1.54	1.57	1.25	0.31	0.17	0.42	0.84	0.04	0.19	0.65	0.98	9.26
<b>North Central</b>													
Farmington USU Fld Stn ..	0.73	4.96	1.92	2.99	0.25	1.03	2.05	0.23	0.08	1.58	3.44	1.56	20.82
Logan USU .....	0.54	1.63	1.27	2.34	0.73	1.13	0.58	0.24	0.12	1.13	2.38	2.00	14.09
Ogden Pioneer PH .....	0.93	2.26	1.15	2.78	0.19	1.08	1.82	0.32	0.09	1.17	2.95	2.05	16.79
Pleasant Grove .....	0.74	0.63	0.88	3.03	0.33	0.07	0.69	0.97	0.10	0.53	3.24	1.69	12.90
Provo BYU .....	0.76	0.91	1.20	2.59	0.15	0.17	0.32	0.33	0.09	0.59	3.14	1.66	11.91
Richmond .....	0.55	1.07	1.14	2.12	0.89	M	0.54	0.10	0.34	1.10	3.29	2.84	13.98
SLC Airport NWSFO .....	0.78	1.50	1.55	2.46	0.22	1.12	1.13	0.53	0.05	0.92	3.34	1.44	15.04
Santaquin Chlor .....	0.45	0.88	2.00	2.70	0.43	0.24	0.63	0.61	0.10	0.86	2.94	1.92	13.76
Tooele .....	0.94	1.65	2.90	2.41	0.32	0.73	1.97	0.57	0.32	0.69	2.64	2.21	17.35
Tremonton .....	0.79	0.90	1.16	2.67	0.42	0.53	0.47	0.05	0.17	0.96	2.81	2.50	13.43
<b>Average</b> .....	0.72	1.64	1.52	2.61	0.39	0.66	1.02	0.40	0.15	0.95	3.02	1.99	15.05
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq ..	3.06	1.58	1.62	2.08	0.11	0.42	1.53	1.11	0.13	0.12	0.92	0.44	13.12
Escalante .....	1.85	1.29	1.07	0.26	0.65	0.56	1.13	2.07	0.18	0.17	0.42	0.29	9.94
Fillmore .....	0.92	1.52	1.52	1.79	0.96	0.63	1.11	0.74	0.04	0.56	2.76	1.49	14.04
Kanab .....	2.21	2.38	1.84	1.49	0.51	0.12	1.19	1.46	0.64	0.27	0.70	1.93	14.74
Koosharem .....	0.57	1.36	0.69	0.24	0.33	0.57	0.97	1.15	0.14	0.57	0.97	0.15	7.71
Levan .....	0.62	0.82	1.70	2.15	0.50	0.03	0.90	0.22	0.06	0.80	1.99	1.21	11.00
Manti .....	0.77	1.23	1.55	1.85	1.19	0.58	0.89	1.29	0.16	0.48	2.34	0.82	13.15
Nephi .....	0.78	0.72	0.87	2.33	1.10	0.04	0.99	0.29	0.02	0.81	2.04	1.20	11.19
Panguitch .....	1.01	1.01	0.23	0.76	1.29	0.79	0.37	2.40	0.10	0.14	0.96	0.11	9.17
Richfield Radio KSVC .....	0.22	0.60	0.62	0.38	0.60	0.20	1.15	1.90	0.04	0.10	0.88	0.42	7.11
<b>Average</b> .....	1.20	1.25	1.17	1.33	0.72	0.39	1.02	1.26	0.15	0.40	1.40	0.81	11.12
<b>Northern Mountains</b>													
Heber .....	0.24	0.50	0.88	2.49	0.25	0.05	0.19	0.79	0.18	1.01	2.12	1.47	10.17
Morgan Como Springs ...	0.18	2.39	0.84	1.93	0.15	0.95	0.67	0.50	0.13	0.85	1.05	1.82	11.46
Olmstead Powerhouse ...	0.74	0.62	1.74	3.04	0.11	0.14	0.25	0.54	0.10	0.62	4.78	1.68	14.36
Scotfield-Skyline Mine ...	1.57	2.05	1.14	1.88	2.29	0.30	2.62	1.59	0.42	1.51	3.88	3.07	22.32
Silver Lake Brighton .....	1.96	3.40	2.45	7.75	0.91	0.85	0.63	2.38	0.88	3.81	8.51	5.04	38.57
Woodruff .....	0.08	1.44	0.03	0.96	0.60	0.10	0.44	0.51	0.15	0.47	1.08	0.53	6.39
<b>Average</b> .....	0.80	1.73	1.18	3.01	0.72	0.40	0.80	1.05	0.31	1.38	3.57	2.27	17.21
<b>Uintah Basin</b>													
Duchesne .....	0.83	1.00	0.61	1.47	1.41	0.28	0.25	0.48	0.05	0.14	0.73	0.28	7.53
Jensen .....	0.38	0.43	0.06	1.11	0.45	0.04	0.85	0.82	0.20	0.69	0.80	0.35	6.18
Roosevelt Radio .....	0.37	0.62	0.83	0.73	0.64	0.02	0.58	0.21	0.05	0.14	0.42	0.33	4.94
Vernal Airport .....	0.46	0.68	0.45	1.20	0.22	0.41	0.98	0.99	0.12	0.87	0.26	0.02	6.66
<b>Average</b> .....	0.51	0.68	0.49	1.13	0.22	0.19	0.67	0.63	0.12	0.87	0.26	0.25	6.00
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	0.89	0.76	0.76	0.51	0.81	0.23	2.05	1.33	0.07	0.30	0.79	0.50	9.00
Blanding .....	1.76	1.34	1.04	1.28	0.48	0.30	1.05	2.14	0.03	0.34	1.43	1.17	12.36
Ferron .....	1.59	0.96	0.83	0.30	0.65	0.38	0.66	0.65	0.17	0.21	0.72	0.14	7.26
Hanksville .....	1.72	0.87	0.82	0.18	1.02	0.40	0.30	0.73	0.31	0.04	0.64	0.27	7.30
Moab .....	1.04	0.98	0.39	0.76	1.06	0.27	2.25	2.34	0.17	0.22	0.75	0.73	10.96
Monticello .....	2.03	1.41	1.06	1.74	0.73	0.29	0.77	2.87	0.42	0.48	2.03	1.04	14.87
<b>Average</b> .....	1.51	1.05	0.82	0.80	0.79	0.31	1.18	1.68	0.20	0.27	1.06	0.64	10.29

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

## Normal Precipitation (Inches), by Months, Utah, 1971-2000

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	0.41	0.35	0.45	0.52	0.95	0.53	0.53	0.65	0.55	0.75	0.36	0.22	6.26
Delta .....	0.60	0.65	0.85	0.82	0.96	0.48	0.56	0.64	0.78	1.01	0.61	0.43	8.38
Enterprise Beryl Jct .....	0.76	0.90	1.35	0.81	0.84	0.50	1.02	1.09	0.93	1.09	0.84	0.57	10.71
Eskdale .....	0.30	0.38	0.68	0.59	0.84	0.60	0.58	0.59	0.76	0.71	0.40	0.17	6.59
Modena .....	0.88	0.98	1.16	0.80	0.82	0.38	1.14	1.26	1.06	1.23	0.76	0.50	10.96
Rosette .....	1.39	1.19	0.98	1.04	1.74	1.38	0.97	0.89	0.90	0.81	0.52	0.93	12.73
<b>Average</b> .....	<b>0.72</b>	<b>0.74</b>	<b>0.91</b>	<b>0.76</b>	<b>1.03</b>	<b>0.65</b>	<b>0.80</b>	<b>0.85</b>	<b>0.83</b>	<b>0.93</b>	<b>0.58</b>	<b>0.47</b>	<b>9.27</b>
<b>Dixie</b>													
St. George .....	1.28	1.02	1.19	0.52	0.40	0.22	0.54	0.73	0.63	0.74	0.75	0.58	8.60
Zion Nat'l Park .....	1.89	1.91	2.34	1.15	0.94	0.42	1.30	1.55	1.04	1.14	1.40	1.09	16.18
<b>Average</b> .....	<b>1.59</b>	<b>1.47</b>	<b>1.77</b>	<b>0.84</b>	<b>0.67</b>	<b>0.32</b>	<b>0.92</b>	<b>1.14</b>	<b>0.84</b>	<b>0.94</b>	<b>1.08</b>	<b>0.84</b>	<b>12.39</b>
<b>North Central</b>													
Farmington USU Fld Stn .	2.20	2.08	2.61	2.68	2.98	1.26	0.92	0.88	1.58	2.15	2.03	1.90	23.28
Logan USU .....	1.56	1.61	2.15	2.12	2.39	1.34	0.98	0.98	1.55	2.06	1.57	1.60	19.89
Ogden Pioneer PH .....	2.32	2.13	2.44	2.47	2.90	1.47	0.91	1.02	1.75	2.27	2.01	1.96	23.65
Pleasant Grove .....	1.80	1.76	1.87	1.67	1.85	0.90	0.86	0.88	1.32	1.78	1.51	1.45	17.66
Provo BYU .....	2.11	2.03	2.11	1.86	2.25	1.29	0.95	1.25	1.67	2.07	1.85	1.68	21.12
Richmond .....	1.68	1.67	2.19	2.22	2.61	1.29	0.95	1.06	1.47	2.04	1.61	1.58	20.37
SLC Airport NWSFO .....	1.37	1.33	1.91	2.02	2.09	0.77	0.72	0.76	1.33	1.57	1.40	1.23	16.50
Santaquin Chlor .....	1.53	1.56	1.91	1.99	2.13	0.83	0.74	0.98	1.38	2.06	1.80	1.33	18.25
Tooele .....	1.42	1.61	2.49	2.37	2.25	0.96	0.88	0.92	1.52	1.95	1.94	1.46	19.76
Tremonton .....	1.75	1.56	1.69	1.48	2.53	1.17	1.24	0.83	1.36	1.54	1.30	1.35	17.81
<b>Average</b> .....	<b>1.77</b>	<b>1.73</b>	<b>2.14</b>	<b>2.09</b>	<b>2.40</b>	<b>1.13</b>	<b>0.92</b>	<b>0.96</b>	<b>1.49</b>	<b>1.95</b>	<b>1.70</b>	<b>1.55</b>	<b>19.83</b>
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq .	1.50	1.67	1.60	0.84	1.07	0.60	1.43	2.23	1.65	1.70	1.20	0.94	16.43
Escalante .....	0.90	0.81	0.92	0.49	0.65	0.37	0.76	1.52	1.12	1.16	0.77	0.54	10.01
Fillmore .....	1.42	1.39	1.98	1.82	1.72	0.70	0.78	0.86	1.09	1.68	1.50	1.23	16.16
Kanab .....	1.86	1.73	1.91	0.95	0.68	0.40	1.05	1.45	1.37	1.35	1.18	1.01	14.94
Koosharem .....	0.64	0.57	0.78	0.60	0.90	0.56	1.06	1.35	1.01	0.97	0.56	0.51	9.52
Levan .....	1.37	1.37	1.64	1.49	1.63	0.80	0.79	0.83	1.22	1.58	1.21	1.13	15.08
Manti .....	1.08	1.07	1.46	1.31	1.52	0.77	0.79	0.89	1.31	1.45	1.15	0.91	13.71
Nephi .....	1.31	1.36	1.76	1.57	1.60	0.82	0.85	1.00	1.16	1.55	1.41	1.14	15.53
Panguitch .....	0.58	0.66	0.74	0.61	0.76	0.53	1.18	1.87	0.98	1.03	0.69	0.40	10.04
Richfield Radio KSVC .	0.58	0.51	0.77	0.62	1.04	0.58	0.69	0.73	0.86	0.99	0.65	0.44	8.47
<b>Average</b> .....	<b>1.12</b>	<b>1.11</b>	<b>1.36</b>	<b>1.03</b>	<b>1.16</b>	<b>0.61</b>	<b>0.94</b>	<b>1.27</b>	<b>1.18</b>	<b>1.35</b>	<b>1.03</b>	<b>0.83</b>	<b>12.99</b>
<b>Northern Mountains</b>													
Heber .....	1.86	1.71	1.49	1.29	1.50	0.84	0.83	0.97	1.27	1.60	1.48	1.39	16.21
Morgan Como Springs .	1.85	1.77	1.87	2.08	1.98	1.10	0.73	0.79	1.55	1.70	1.85	1.59	18.87
Olmstead Powerhouse .	2.30	2.07	2.13	1.80	2.52	1.12	0.82	1.09	1.79	2.00	1.95	1.52	21.13
Scofield-Skyline Mine .	2.86	3.14	2.55	2.17	1.86	1.41	1.44	1.52	2.00	1.90	2.48	2.04	25.35
Silver Lake Brighton .	5.06	4.85	5.26	4.12	3.44	1.57	1.64	1.87	2.55	3.65	4.81	4.65	43.47
Woodruff .....	0.54	0.50	0.63	0.94	1.21	0.99	0.79	0.83	1.24	1.06	0.67	0.45	9.84
<b>Average</b> .....	<b>2.41</b>	<b>2.34</b>	<b>2.32</b>	<b>2.07</b>	<b>2.09</b>	<b>1.17</b>	<b>1.04</b>	<b>1.18</b>	<b>1.73</b>	<b>1.99</b>	<b>2.21</b>	<b>1.94</b>	<b>22.48</b>
<b>Uintah Basin</b>													
Duchesne .....	0.54	0.59	0.65	0.99	1.08	0.74	1.05	1.44	1.28	1.10	0.54	0.57	10.58
Jensen .....	0.54	0.53	0.68	0.82	0.92	0.53	0.68	0.62	0.93	1.13	0.59	0.46	8.44
Roosevelt Radio .....	0.56	0.44	0.54	0.69	0.89	0.44	0.48	0.66	0.76	1.03	0.47	0.36	7.32
Vernal Airport .....	0.41	0.50	0.68	0.86	1.05	0.66	0.64	0.74	0.91	1.25	0.57	0.44	8.71
<b>Average</b> .....	<b>0.51</b>	<b>0.52</b>	<b>0.64</b>	<b>0.84</b>	<b>0.99</b>	<b>0.59</b>	<b>0.71</b>	<b>0.87</b>	<b>0.97</b>	<b>1.13</b>	<b>0.54</b>	<b>0.46</b>	<b>8.76</b>
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	0.58	0.44	0.85	0.84	0.74	0.42	0.86	0.99	0.77	1.32	0.67	0.46	8.94
Blanding .....	1.54	1.11	1.07	0.88	0.80	0.47	1.31	1.23	1.25	1.60	1.11	1.00	13.37
Ferron .....	0.67	0.64	0.73	0.51	0.75	0.41	1.04	0.97	1.02	0.98	0.57	0.40	8.69
Hanksville .....	0.50	0.25	0.55	0.45	0.52	0.23	0.49	0.55	0.79	0.73	0.39	0.27	5.72
Moab .....	0.67	0.52	0.90	0.97	0.83	0.37	0.89	0.84	0.75	1.26	0.75	0.64	9.38
Monticello .....	1.81	1.31	1.20	0.95	1.03	0.64	1.35	1.86	1.53	1.88	1.43	1.26	16.26
<b>Average</b> .....	<b>0.96</b>	<b>0.71</b>	<b>0.88</b>	<b>0.77</b>	<b>0.78</b>	<b>0.42</b>	<b>0.99</b>	<b>1.07</b>	<b>1.02</b>	<b>1.30</b>	<b>0.82</b>	<b>0.67</b>	<b>10.39</b>

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

## Total Growing Degree Days Base 50, by Months, Utah, 2001

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	0	27	144	226	458	523	648	687	533	320	104	3	3,671
Delta .....	2	31	157	247	476	514	641	631	512	332	102	1	3,642
Enterprise Beryl Jct .....	3	21	135	206	450	489	576	584	502	370	138	2	3,473
Eskdale .....	0	21	158	220	495	585	691	684	544	360	113	2	3,870
Modena .....	9	21	135	214	467	504	622	584	533	388	138	3	3,616
Rosette .....	0	0	46	102	299	457	676	708	460	246	65	0	3,057
<b>Average</b> .....	2	20	129	202	441	512	642	646	514	336	110	2	3,554
<b>Dixie</b>													
St. George .....	97	140	314	431	687	715	815	897	721	489	243	39	5,585
Zion Nat'l Park .....	62	90	248	338	646	713	812	840	721	553	269	30	5,321
<b>Average</b> .....	79	115	281	384	667	714	814	869	721	521	256	34	5,453
<b>North Central</b>													
Farmington USU Fld Stn .	0	13	122	194	468	574	779	739	567	289	78	0	3,821
Logan USU .....	0	0	51	133	387	510	725	727	534	250	45	0	3,359
Ogden Pioneer PH .....	0	3	94	168	444	542	769	780	575	297	88	0	3,757
Pleasant Grove .....	3	16	106	179	433	574	751	727	548	288	110	0	3,733
Provo BYU .....	5	26	147	226	481	594	724	735	577	333	129	0	3,974
Richmond .....	0	0	65	164	402	510	649	648	531	263	68	0	3,299
Salt Lake City Airport ....	0	12	95	170	464	592	804	798	589	280	87	0	3,888
Santaquin Chlor .....	1	17	112	180	446	584	785	754	595	325	102	0	3,899
Tooele .....	0	14	110	203	490	630	795	801	624	342	97	0	4,103
Tremonton .....	0	5	106	187	450	543	756	737	537	286	89	0	3,695
<b>Average</b> .....	1	10	101	180	446	565	754	744	568	295	89	0	3,753
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq . .	0	1	10	76	230	341	413	398	335	185	28	0	2,016
Escalante .....	3	10	147	243	491	555	647	631	536	373	129	3	3,764
Fillmore .....	1	21	123	211	480	613	737	742	567	326	112	1	3,931
Kanab .....	30	42	178	258	519	566	666	666	553	403	152	3	4,034
Koosharem .....	7	3	40	147	338	480	508	581	377	221	72	2	2,773
Levan .....	3	12	95	176	429	525	535	673	516	280	98	0	3,341
Manti .....	1	9	75	162	366	498	616	604	450	242	70	0	3,091
Nephi .....	0	15	110	190	438	491	756	764	549	329	98	0	3,739
Panguitch .....	2	9	105	214	427	521	572	560	491	295	98	0	3,290
Richfield Radio K SVC ....	4	31	125	219	433	541	615	581	513	331	119	2	3,512
<b>Average</b> .....	5	15	101	189	415	513	606	620	488	298	97	1	3,349
<b>Northern Mountains</b>													
Heber .....	0	10	104	176	454	516	595	586	518	324	116	0	3,397
Morgan Como Springs ...	0	0	64	130	309	412	529	541	492	292	130	0	2,898
Olmstead Powerhouse ...	0	21	131	178	475	575	722	734	578	349	142	0	3,903
Scofield-Skyline Mine ....	0	0	9	52	215	324	379	411	310	140	28	0	1,866
Silver Lake Brighton .....	0	0	0	24	129	231	376	376	242	73	7	0	1,456
Woodruff .....	0	0	11	109	318	408	527	528	420	196	40	0	2,554
<b>Average</b> .....	0	5	53	111	317	411	521	529	427	229	77	0	2,679
<b>Uintah Basin</b>													
Duchesne .....	0	2	91	179	382	507	618	589	457	235	63	0	3,120
Jensen .....	0	8	157	258	474	539	641	631	520	308	107	0	3,641
Roosevelt Radio .....	0	2	125	240	437	443	627	607	511	289	76	0	3,355
Vernal Airport .....	0	5	112	200	423	526	591	570	440	287	77	0	3,228
<b>Average</b> .....	0	4	121	219	429	504	619	599	482	280	81	0	3,336
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	2	53	185	350	552	704	811	794	622	419	214	1	4,704
Blanding .....	7	7	119	222	465	618	717	683	596	332	136	0	3,899
Ferron .....	2	0	96	197	433	575	687	663	539	314	112	0	3,616
Hanksville .....	1	31	195	344	517	614	771	747	570	405	167	6	4,365
Moab .....	5	68	210	393	569	661	822	765	589	454	201	4	4,738
Monticello .....	3	0	51	157	359	518	600	556	439	237	79	0	2,997
<b>Average</b> .....	3	26	142	277	482	615	734	701	559	360	151	2	4,053

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



## Normal Growing Degree Days Base 50, by Months, Utah, 1971-2000

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	15	35	119	217	351	491	642	611	430	244	65	17	3,236
Delta .....	9	38	124	222	371	514	648	632	460	275	76	12	3,383
Enterprise Beryl Jct .....	19	40	118	218	353	485	583	569	443	286	94	23	3,231
Eskdale .....	21	49	129	232	386	524	663	639	467	286	91	23	3,510
Modena .....	21	44	121	227	371	504	606	584	452	292	90	22	3,333
Rosette .....	1	9	48	105	242	381	601	606	393	184	31	2	2,602
<b>Average</b> .....	14	36	110	203	345	483	624	607	441	261	75	17	3,216
<b>Dixie</b>													
St. George .....	87	164	294	413	600	731	863	841	668	467	210	89	5,428
Zion Nat'l Park .....	74	125	226	349	541	704	838	819	670	455	189	81	5,070
<b>Average</b> .....	80	145	260	381	570	717	851	830	669	461	199	85	5,249
<b>North Central</b>													
Farmington USU Fld Stn ..	5	22	96	208	367	541	704	678	470	263	62	8	3,425
Logan USU .....	1	5	45	132	278	461	666	651	403	195	31	3	2,873
Ogden Pioneer PH .....	3	18	85	192	358	554	742	721	476	248	54	7	3,456
Pleasant Grove .....	6	27	100	201	358	525	696	672	465	260	69	11	3,389
Provo BYU .....	10	36	127	234	400	553	703	694	495	281	81	13	3,627
Richmond .....	0	6	55	158	305	455	602	596	421	220	34	3	2,855
Salt Lake City Airport .....	6	23	89	187	358	562	754	736	488	249	62	9	3,522
Santaquin Chlor .....	7	20	80	170	336	514	687	655	446	243	60	10	3,225
Tooele .....	8	20	81	184	345	543	730	698	458	236	52	9	3,363
Tremonton .....	1	10	66	172	313	496	683	677	438	217	38	3	3,114
<b>Average</b> .....	5	19	82	184	342	520	697	678	456	241	54	8	3,285
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq ..	2	4	24	89	206	363	463	423	294	152	26	4	2,049
Escalante .....	13	34	111	220	375	516	628	596	441	272	78	13	3,297
Fillmore .....	10	34	108	209	362	536	683	663	472	263	74	12	3,428
Kanab .....	43	81	159	266	415	553	678	661	513	343	138	51	3,900
Koosharem .....	8	16	54	137	266	418	520	494	367	208	57	12	2,558
Levan .....	5	24	96	192	338	494	642	622	453	267	76	9	3,217
Manti .....	4	16	70	161	297	460	609	577	398	228	59	8	2,886
Nephi .....	9	31	113	218	368	520	659	641	472	283	84	13	3,412
Panguitch .....	8	24	82	178	315	456	541	512	401	250	74	12	2,855
Richfield Radio KSVC .....	15	39	117	213	351	489	602	580	446	283	86	20	3,240
<b>Average</b> .....	12	30	93	188	330	481	602	577	426	255	75	15	3,084
<b>Northern Mountains</b>													
Heber .....	3	11	63	164	306	442	558	546	409	244	59	6	2,811
Morgan Como Springs .....	2	11	69	173	319	464	580	569	420	248	55	6	2,916
Olmstead Powerhouse .....	7	25	101	213	358	528	686	670	473	272	74	12	3,418
Scofield-Skyline Mine .....	0	1	5	40	126	270	384	366	218	93	12	0	1,515
Silver Lake Brighton .....	0	1	3	19	80	211	341	318	182	65	6	0	1,226
Woodruff .....	0	1	22	103	221	354	486	473	323	168	25	1	2,177
<b>Average</b> .....	2	8	44	119	235	378	506	490	337	182	38	4	2,344
<b>Uintah Basin</b>													
Duchesne .....	2	11	81	196	344	473	599	582	394	207	31	2	2,922
Jensen .....	1	12	94	220	377	497	605	573	432	251	42	2	3,108
Roosevelt Radio .....	1	11	93	229	381	506	616	594	443	253	43	3	3,172
Vernal Airport .....	1	8	75	195	348	487	605	574	411	209	31	1	2,945
<b>Average</b> .....	1	11	86	210	363	491	606	581	420	230	37	2	3,037
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	12	59	192	312	513	681	818	804	597	354	109	12	4,462
Blanding .....	7	28	96	201	363	543	672	643	457	251	63	8	3,331
Ferron .....	3	17	80	180	332	505	647	611	422	244	52	4	3,096
Hanksville .....	15	58	192	318	484	596	708	686	526	341	99	12	4,037
Moab .....	20	75	223	355	527	650	775	759	589	390	130	21	4,514
Monticello .....	1	7	46	141	278	446	570	527	362	188	34	2	2,601
<b>Average</b> .....	6	29	117	235	395	538	661	635	463	269	63	7	3,419

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

## Total Growing Degree Days Base 40, by Months, Utah, 2001

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	30	100	293	374	593	684	805	860	690	476	233	34	5,168
Delta .....	30	125	295	384	601	659	806	796	611	472	218	21	5,015
Enterprise Beryl Jct .....	54	95	260	345	554	570	696	714	550	503	255	37	4,631
Eskdale .....	14	92	307	367	653	739	860	853	669	523	238	37	5,351
Modena .....	72	95	260	356	572	616	774	714	605	542	255	51	4,910
Rosette .....	0	22	154	220	478	655	862	888	626	418	169	2	4,490
<b>Average</b> .....	<b>33</b>	<b>88</b>	<b>261</b>	<b>341</b>	<b>575</b>	<b>653</b>	<b>800</b>	<b>804</b>	<b>625</b>	<b>489</b>	<b>228</b>	<b>30</b>	<b>4,927</b>
<b>Dixie</b>													
St. George .....	252	292	508	618	862	876	983	1066	881	699	420	161	7,616
Zion Nat'l Park .....	175	222	446	510	805	876	983	1011	885	744	457	137	7,248
<b>Average</b> .....	<b>213</b>	<b>257</b>	<b>477</b>	<b>564</b>	<b>833</b>	<b>876</b>	<b>983</b>	<b>1038</b>	<b>883</b>	<b>722</b>	<b>438</b>	<b>149</b>	<b>7,432</b>
<b>North Central</b>													
Farmington USU Fld Stn .	22	73	270	373	681	758	951	909	751	498	203	16	5,503
Logan USU .....	0	15	161	278	606	704	899	908	727	440	161	4	4,902
Ogden Pioneer PH .....	12	44	227	335	661	732	942	960	770	501	217	8	5,406
Pleasant Grove .....	32	90	248	348	650	748	929	906	737	501	232	16	5,434
Provo BYU .....	38	117	303	399	679	760	896	905	751	538	255	22	5,661
Richmond .....	0	18	188	309	577	M	823	819	672	434	173	5	4,017
Salt Lake City Airport ....	8	62	245	339	681	782	978	972	787	488	210	14	5,564
Santaquin Chlor .....	26	84	245	355	652	764	959	928	773	522	223	17	5,545
Tooele .....	17	82	254	388	711	805	968	972	806	555	219	23	5,796
Tremonton .....	0	61	259	347	646	725	927	913	707	462	208	4	5,258
<b>Average</b> .....	<b>15</b>	<b>64</b>	<b>240</b>	<b>347</b>	<b>654</b>	<b>753</b>	<b>927</b>	<b>919</b>	<b>748</b>	<b>494</b>	<b>210</b>	<b>13</b>	<b>5,384</b>
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq .	21	19	71	160	362	500	649	623	502	330	123	0	3,357
Escalante .....	54	82	295	396	635	710	813	806	679	537	246	50	5,300
Fillmore .....	23	97	265	380	678	774	918	917	748	537	240	24	5,598
Kanab .....	95	150	329	420	667	720	835	839	704	574	286	66	5,683
Koosharem .....	43	42	122	260	490	583	682	M	504	366	173	M	3,263
Levan .....	58	76	222	329	609	686	682	852	678	443	215	11	4,858
Manti .....	33	59	194	304	563	675	817	796	632	399	174	5	4,647
Nephi .....	19	57	221	339	623	590	929	936	723	517	215	12	5,179
Panguitch .....	38	83	239	347	548	604	701	702	569	447	215	19	4,507
Richfield Radio KSVC ....	67	123	267	375	590	668	776	747	605	488	230	36	4,971
<b>Average</b> .....	<b>45</b>	<b>79</b>	<b>222</b>	<b>331</b>	<b>576</b>	<b>651</b>	<b>780</b>	<b>802</b>	<b>634</b>	<b>464</b>	<b>211</b>	<b>25</b>	<b>4,819</b>
<b>Northern Mountains</b>													
Heber .....	23	71	244	331	579	615	732	735	588	472	226	4	4,617
Morgan Como Springs ...	5	13	177	251	448	526	675	688	601	437	M	5	3,825
Olmstead Powerhouse ...	44	105	276	345	659	738	892	905	733	539	254	29	5,518
Scotfield-Skyline Mine ....	12	3	56	144	359	484	567	613	483	285	112	0	3,115
Silver Lake Brighton .....	11	0	34	74	263	395	625	634	421	191	55	0	2,701
Woodruff .....	0	3	73	223	465	522	652	625	532	345	129	1	3,568
<b>Average</b> .....	<b>16</b>	<b>32</b>	<b>143</b>	<b>228</b>	<b>462</b>	<b>547</b>	<b>690</b>	<b>700</b>	<b>560</b>	<b>378</b>	<b>155</b>	<b>6</b>	<b>3,890</b>
<b>Uintah Basin</b>													
Duchesne .....	5	36	228	327	579	665	800	798	646	408	171	4	4,665
Jensen .....	19	79	309	409	608	674	802	798	621	451	222	2	4,990
Roosevelt Radio .....	2	47	269	392	576	543	786	775	600	436	186	2	4,612
Vernal Airport .....	15	51	252	372	566	668	747	729	542	431	187	0	4,558
<b>Average</b> .....	<b>13</b>	<b>41</b>	<b>192</b>	<b>287</b>	<b>510</b>	<b>583</b>	<b>728</b>	<b>730</b>	<b>576</b>	<b>399</b>	<b>171</b>	<b>5</b>	<b>4,234</b>
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	70	159	345	520	730	874	973	966	790	593	350	39	6,406
Blanding .....	53	76	263	399	652	791	894	877	779	551	256	24	5,611
Ferron .....	38	29	225	359	627	742	873	850	702	486	225	1	5,154
Hanksville .....	48	118	363	517	678	779	945	923	705	555	293	46	5,967
Moab .....	86	196	368	563	727	814	992	935	748	613	338	53	6,431
Monticello .....	31	25	161	298	551	679	803	773	630	406	186	2	4,543
<b>Average</b> .....	<b>54</b>	<b>100</b>	<b>287</b>	<b>442</b>	<b>660</b>	<b>780</b>	<b>913</b>	<b>887</b>	<b>725</b>	<b>534</b>	<b>274</b>	<b>27</b>	<b>5,685</b>

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

## Normal Growing Degree Days Base 40, by Months, Utah, 1971-2000

Division & Selected Stations	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
<b>Western</b>													
Callao .....	61	113	256	367	527	667	816	777	588	395	171	67	4,804
Delta .....	52	114	256	365	535	679	821	804	619	423	179	59	4,905
Enterprise Beryl Jct .....	78	121	248	358	494	597	723	713	569	424	204	92	4,620
Eskdale .....	86	139	269	384	553	686	833	805	621	438	204	92	5,112
Modena .....	82	128	254	368	518	636	765	745	597	432	202	93	4,818
Rosette .....	22	58	154	236	431	588	794	801	591	339	104	22	4,140
<b>Average</b> .....	63	112	239	346	510	642	792	774	597	408	177	71	4,733
<b>Dixie</b>													
St. George .....	226	306	470	594	787	899	1031	1011	836	645	367	231	7,401
Zion Nat'l Park .....	202	265	405	538	735	872	1009	991	846	662	358	214	7,097
<b>Average</b> .....	214	285	437	566	761	886	1020	1001	841	653	363	222	7,249
<b>North Central</b>													
Farmington USU Fld Stn .	41	91	229	374	569	731	880	854	662	436	166	47	5,078
Logan USU .....	16	38	140	278	488	681	862	850	622	367	104	25	4,471
Ogden Pioneer PH .....	33	77	215	362	580	762	924	907	692	440	152	44	5,186
Pleasant Grove .....	44	97	232	362	557	717	877	855	665	430	172	55	5,063
Provo BYU .....	59	112	270	402	599	738	879	869	683	448	191	63	5,313
Richmond .....	13	43	158	299	475	623	770	764	585	371	110	22	4,233
Salt Lake City Airport ....	41	89	223	356	575	765	934	919	698	436	166	47	5,248
Santaquin Chlor .....	45	81	197	315	529	704	867	834	630	404	153	53	4,814
Tooele .....	47	86	206	347	557	748	914	888	671	415	148	52	5,079
Tremonton .....	17	54	183	332	525	711	872	864	645	382	125	25	4,735
<b>Average</b> .....	36	77	205	343	546	718	878	860	655	413	149	43	4,922
<b>South Central</b>													
Bryce Cnyn Nat'l Pk Hq ..	28	40	101	204	357	524	655	624	457	289	94	35	3,408
Escalante .....	70	118	248	368	540	673	804	781	619	426	193	82	4,920
Fillmore .....	58	110	242	368	553	712	858	841	660	433	176	62	5,071
Kanab .....	139	196	307	420	591	719	853	841	699	509	275	158	5,705
Koosharem .....	49	75	155	265	418	543	662	648	512	347	145	64	3,882
Levan .....	42	90	219	335	509	665	817	798	624	414	177	52	4,743
Manti .....	35	69	183	303	478	646	800	777	592	382	152	47	4,464
Nephi .....	55	104	244	364	542	684	832	813	640	436	188	64	4,966
Panguitch .....	56	96	202	315	463	561	673	656	538	395	177	72	4,204
Richfield Radio KSVC ....	69	120	252	359	513	634	765	742	594	431	195	84	4,757
<b>Average</b> .....	60	102	215	330	496	636	772	752	593	406	177	72	4,612
<b>Northern Mountains</b>													
Heber .....	28	54	170	303	461	575	703	689	548	388	148	38	4,105
Morgan Como Springs ...	28	62	182	314	479	607	735	715	561	392	141	38	4,256
Olmstead Powerhouse ...	49	96	231	373	556	716	864	849	666	446	176	60	5,081
Scofield-Skyline Mine ....	11	19	51	124	258	438	603	585	379	210	54	11	2,742
Silver Lake Brighton .....	12	18	35	89	200	373	564	534	340	169	40	11	2,384
Woodruff .....	7	17	88	222	374	502	632	611	466	305	82	15	3,320
<b>Average</b> .....	23	44	126	238	388	535	683	664	493	318	107	29	3,648
<b>Uintah Basin</b>													
Duchesne .....	23	52	201	344	518	652	786	777	580	363	110	23	4,430
Jensen .....	18	53	216	364	534	643	771	727	574	398	130	24	4,454
Roosevelt Radio .....	21	53	218	373	539	658	783	758	595	402	132	26	4,556
Vernal Airport .....	14	44	190	339	514	646	777	744	575	360	108	18	4,328
<b>Average</b> .....	19	51	206	355	526	650	779	751	581	381	120	23	4,442
<b>Southeast</b>													
Arches Nat'l Pk Hq .....	79	165	355	492	712	857	990	978	778	529	243	85	6,260
Blanding .....	53	106	222	353	555	723	854	833	664	429	170	65	5,024
Ferron .....	32	72	198	329	526	695	833	807	617	400	149	42	4,699
Hanksville .....	78	161	343	468	640	753	878	854	676	484	222	81	5,638
Moab .....	94	189	390	529	708	818	946	929	752	548	270	108	6,281
Monticello .....	20	46	146	277	452	621	767	742	558	339	112	29	4,109
<b>Average</b> .....	59	123	276	408	599	744	878	857	674	455	194	68	5,335

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

## Freeze Dates and Freeze-Free Period, Utah, 2001 and Averages

Division and Station	2001			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
<b>Western</b>						
Callao .....	5-May	9-Sep	127	16-May	25-Sep	132
Delta .....	14-Jun	7-Sep	85	16-May	29-Sep	136
Enterprise Beryl Jct .....	16-Jun	9-Sep	85	7-Jun	14-Sep	99
Eskdale .....	13-Jun	9-Sep	88	25-May	24-Sep	123
Modena .....	M	M	M	31-May	23-Sep	116
Rosette .....	14-Jun	5-Oct	113	25-May	26-Sep	125
<b>Dixie</b>						
St. George .....	M	M	M	3-Apr	28-Oct	210
Zion Nat'l Park .....	4-May	13-Oct	162	15-Apr	31-Oct	201
<b>North Central</b>						
Farmington USU Fld .....	2-May	12-Oct	163	2-May	10-Oct	162
Logan USU .....	2-May	10-Oct	161	6-May	10-Oct	159
Ogden Pioneer PH .....	14-Apr	12-Oct	181	2-May	13-Oct	165
Pleasant Grove .....	13-Apr	10-Oct	180	9-May	10-Oct	156
Provo BYU .....	13-Apr	10-Oct	180	23-Apr	16-Oct	178
Richmond .....	M	M	M	23-May	24-Sep	125
Salt Lake City Airport .....	13-Apr	12-Oct	182	26-Apr	16-Oct	176
Santaquin Chlorinator .....	13-Jun	10-Oct	119	14-May	4-Oct	144
Tooele .....	13-Jun	24-Oct	133	5-May	14-Oct	164
Tremonton .....	23-Apr	12-Oct	172	28-Apr	8-Oct	165
<b>South Central</b>						
Bryce Canyon Nat'l Pk Hq .....	15-Jun	9-Sep	86	17-Jun	6-Sep	82
Escalante .....	6-May	10-Oct	157	16-May	3-Oct	142
Fillmore .....	13-Jun	10-Oct	119	14-May	5-Oct	146
Kanab .....	5-May	11-Oct	159	7-May	18-Oct	165
Koosharem .....	15-Jun	7-Sep	84	17-Jun	6-Sep	81
Levan .....	13-Jun	10-Oct	119	22-May	29-Sep	130
Manti .....	13-Jun	10-Oct	119	21-May	27-Sep	129
Nephi .....	13-Jun	10-Oct	119	15-May	30-Sep	139
Panguitch .....	14-Jun	7-Sep	85	21-Jun	3-Sep	75
Richfield Radio KSVC .....	14-Jun	9-Sep	87	26-May	20-Sep	118
<b>Northern Mountains</b>						
Heber .....	13-Jun	9-Sep	88	13-Jun	7-Sep	86
Morgan .....	14-Jun	9-Sep	87	5-Jun	14-Sep	102
Olmstead Powerhouse .....	14-Apr	12-Oct	181	1-May	14-Oct	167
Scofield-Skyline Mine .....	15-Jun	8-Sep	85	23-Jun	9-Sep	78
Silver Lake Brighton .....	15-Jun	7-Sep	84	1-Jul	29-Aug	59
Woodruff .....	19-Jun	25-Aug	67	27-Jun	23-Aug	57
<b>Uintah Basin</b>						
Duchesne .....	13-Jun	5-Oct	114	22-May	22-Sep	123
Jensen .....	13-Jun	9-Sep	88	19-May	18-Sep	122
Roosevelt Radio .....	14-Jun	9-Sep	87	17-May	25-Sep	131
Vernal Airport .....	13-Jun	9-Sep	88	26-May	21-Sep	118
<b>Southeast</b>						
Arches Nat'l Pk Hq .....	13-Apr	25-Oct	195	10-Apr	26-Oct	201
Blanding .....	4-May	24-Oct	173	13-May	11-Oct	153
Ferron .....	13-Jun	10-Oct	119	17-May	1-Oct	138
Hanksville .....	13-Apr	10-Oct	180	5-May	3-Oct	152
Moab .....	14-Apr	24-Oct	193	16-Apr	16-Oct	186
Monticello .....	15-Jun	10-Oct	117	30-May	28-Sep	122

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 for 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://extension.usu.edu/agecon/>.

## **Index of Enterprise Budgets by Subject and Year Most Recently Published in Utah Agricultural Statistics, 1993-2001**

<b>Enterprise Budget</b>	<b>Most Recent Report Year</b>	<b>Enterprise Budget</b>	<b>Most Recent Report Year</b>
Alfalfa Hay, establishment with oat hay	1998	Dairy Bull	1998
Alfalfa Hay, establishment, Grand County	1994	Deer Hunt Pack Trip	1996
Alfalfa Hay, irrigated, East Millard County	1997	Elk	1997
Alfalfa Hay, dryland, Box Elder County	2001	Grass Hay	1998
Alfalfa Haylage, Millard County	2001	Lawn Turf	1997
Apples, Utah County	1994	Machinery data	1993
Barley, wheel-line irrigation, Cache County	2001	Manure & Waste Disposal, Dairy	1998
Beans		Oat Hay	1994
Dry edible, dryland	1993	Onion Production, Box Elder County	2001
Beef Cattle		Ostrich	1995
Background feeder operation	1998	Pasture, irrigated	1995
Beef heifer replacement	1998	Pasture, Native Meadow	1993
Cow/calf	1997	Pasture Establishment	1995
Cow/calf, southern Utah	2000	Peaches, Box Elder County	1994
Cow/calf/yearling, Rich County	1996	Pheasants	1995
Feeder cattle	2000	Potatoes, chipper, Box Elder County	1994
Finish cattle	2000	Pumpkin	1997
Bison, Cow/Calf, 50 Cows	2001	Raspberry	1996
Canola, Spring irrigated	1996	Safflower, dryland	1998
Cherries, Tart	1995	Sheep, range	1997
Corn for grain, Box Elder County	2001	Soybean	1998
Corn Silage, Cache County	2001	Swine, farrow to finish	1998
Corn, Sweet	1996	Swine, Hog Finishing	1993
CRP Contract, per acre	2001	Tomatoes	1996
Custom Operators Rates	1998	Triticale	1996
Dairy		Turkeys, Hen	2000
Holstein Heifer Replacement	2001	Watermelons	1996
Jersey Heifer Replacement	2000	Wheat, Winter, dryland, Box Elder County	1996
Milk Cows, Jersey	1998	Wheat, Spring, irrigated	1994
Milk Cows, Holstein	1997	Wheat Straw Residue	1997
Milk Cows, Holstein	2001	Wheat, Soft White Winter, irrigated, Box Elder Co	2000

## Enterprise Budget: Alfalfa Hay, Dryland, Box Elder County, Utah, 2001

Item	Unit	Quantity per acre	\$/unit	Value/Cost per Acre	Your Farm
..... Dollars .....					
<b>Receipts:</b>					
Alfalfa Hay .....	Tons	1.50	95.00	142.50	_____
Residue .....	AUM	0.25	11.00	2.75	_____
<b>Total Receipts</b> .....				145.25	
<b>Expenses:</b>					
Variable Operating Costs					
Establishment Costs (ammortized)	Acre	1	12.46	12.46	_____
Harvesting (custom)					
Swathing .....	Acre	1	12.17	12.17	_____
Baling .....	small bales	100	0.37	37.00	_____
Hauling .....	small bales	100	0.29	29.00	_____
Interest on operating capital @ 9.75%				1.21	_____
Transportation/shipping to market .....	Tons	1.50	0.12	0.18	_____
<b>Total Variable Costs</b> .....				92.02	_____
Fixed Costs (excludes cost of land)					
Farm Insurance .....	Acre	1	2.00	2.00	_____
Machinery ownership .....	Acre	1	9.00	9.00	_____
<b>Total Fixed Costs</b> .....				11.00	_____
<b>Total All Expenses</b> .....				103.02	_____
<b>Net returns to owner for unpaid labor, management, equity and risk</b>					
above operating costs .....				53.23	_____
above total costs .....				42.23	_____

**Assumptions and notes:**

- Alfalfa already established and harvested in June or July.
- Interest computed on establishment costs for 12 months.
- Harvesting costs are based on average custom harvesting rates.
- Costs are based on 40 acres of alfalfa.
- Machinery ownership costs include depreciation, interest, insurance, and housing.

**Net returns per acre to operator above operating costs for various alfalfa prices and levels of production**

Tons per acre	Selling Price (Dollars)				
	76.00	85.50	95.00	104.50	114.00
1.05	10.38	20.35	30.33	40.30	50.28
1.20	15.16	26.56	37.96	49.36	60.76
1.35	19.94	32.77	45.59	58.42	71.24
1.50	24.73	38.98	53.23	67.48	81.73
1.65	29.51	45.18	60.86	76.53	92.21
1.80	34.29	51.39	68.49	85.59	102.69
1.95	39.07	57.60	76.12	94.65	113.17

Budget prepared by E. Bruce Godfrey, Shane Ellis, and Lyle Holmgren

## Enterprise Budget: Corn Silage, Flood Irrigation, Cache County, Utah, 2001

Item	Unit	Quantity per acre	\$/unit	Value/Cost per Acre	Your Farm
				Dollars	
<b>Receipts:</b>					
Corn Silage .....	Tons	25	28.00	700.00	_____
Total Receipts .....				700.00	_____
<b>Variable Operating Costs</b>					
<b>Land Preparation</b>					
Plowing .....	Acre	1	10.11	10.11	_____
Discing .....	Acre	1	3.27	3.27	_____
Land plane .....	Acre	2	3.80	7.60	_____
Roller harrow .....	Acre	1	2.83	2.83	_____
Planting .....	Acre	1	10.86	10.86	_____
Seed .....	Pounds	16	1.50	24.00	_____
<b>Cultivation</b>					
First .....	Acre	1	7.48	7.48	_____
Second .....	Acre	1	7.48	7.48	_____
<b>Fertilization</b>					
Nitrogen (34-0-0) .....	Pounds	294	0.09	24.99	_____
Custom application .....	Acre	1	4.50	4.50	_____
Manure .....	Tons	1	5.00	5.00	_____
Spread Manure .....	Acre	1	6.00	6.00	_____
<b>Pesticides/Herbicides</b>					
Dual .....	Quart	1	8.34	8.34	_____
Thimet .....	Pounds	1.36	10.00	13.60	_____
Custom application .....	Acre	2	5.00	10.00	_____
<b>Irrigation (flood)</b>					
Labor .....	Irrigations	5			_____
	Hours	3.5	10.00	35.00	_____
Water assessment .....	Share	1	10.00	10.00	_____
Repairs/maintenance .....	Acre	1	3.90	3.90	_____
Pumping .....	Acre foot	1.75	12.00	21.00	_____
<b>Harvesting</b>					
Chopping (custom) .....	Tons	25	4.00	100.00	_____
Packing and Pushing .....	Tons	25	1.00	25.00	_____
Trucking .....	Tons	25	2.00	50.00	_____
Interest on operating capital @ 9.75%				6.69	_____
Total Variable Operating Costs .....				397.65	_____
<b>Ownership costs (excludes cost of land)</b>					
Farm Insurance .....	Acre	1	2.00	2.00	_____
Machinery .....	Acre	1	49.65	49.65	_____
Irrigation equipment .....	Acre	1	8.25	8.25	_____
Total All Expenses .....				457.55	_____
<b>Net returns to owner for unpaid labor, management, equity and risk</b>					
above operating costs .....				302.35	_____
above total costs .....				242.45	_____

**Assumptions:**

- Corn planted in May and harvested in September.
- Interest computed on land preparation and planting costs for 6 months and cultivation/fertilization, herbicide/irrigation costs for 3 months.
- Machinery operating costs include: fuel, oil, repairs, and labor.
- Machinery costs are based on 49 acres of corn silage.
- Machinery ownership costs include depreciation, interest, insurance, and housing.

Net returns per acre to operator above operating costs  
for various corn silage prices and levels of production

Tons per acre	Selling Price (dollars)				
	24.00	26.00	28.00	30.00	32.00
16.00	49.35	81.35	113.35	145.35	177.35
18.00	83.35	119.35	155.35	191.35	227.35
20.00	117.35	157.35	197.35	237.35	277.35
25.00	202.35	252.35	302.35	352.35	402.35
26.00	219.35	271.35	323.35	375.35	427.35
28.00	253.35	309.35	365.35	421.35	477.35
30.00	287.35	347.35	407.35	467.35	527.35

Budget prepared by E. Bruce Godfrey, Shane Ellis, and Clark Israelsen

## Enterprise Budget: Corn for Grain, Siphon Irrigation, Box Elder County, Utah, 2001

Item	Unit	Quantity per acre	\$/unit	Value/Cost per Acre	Your Farm
Dollars .....					
<b>Receipts:</b>					
Corn Grain .....	Bushels	145	2.60	377.00	_____
<b>Total Receipts</b> .....				<b>377.00</b>	_____
<b>Variable Operating Costs</b>					
<b>Land Preparation</b>					
Plowing (every 3rd year) .....	Acre	1/3	10.11	3.37	_____
Discing w/packer .....	Acre	2	3.27	6.54	_____
Land plane .....	Acre	2	3.29	6.58	_____
Planting .....	Acre	1	10.86	10.86	_____
Seed .....	Pounds	16	1.50	24.00	_____
<b>Cultivation</b>					
First .....	Acre	1	7.48	7.48	_____
Second .....	Acre	1	7.48	7.48	_____
<b>Fertilization</b>					
Nitrogen (34-0-0) .....	Pounds	561	0.09	47.69	_____
Phosphate (11-52-0) .....	Pounds	163	0.12	19.97	_____
Custom application .....	Acre	1	4.50	4.50	_____
<b>Pesticides/Herbicides</b>					
Alach/Lasso .....	Quart	3.00	6.34	19.02	_____
Phorate .....	Pounds	6.75	2.03	13.70	_____
2-4-D .....	Pints	2.50	1.56	3.90	_____
Custom application .....	Acre	1	5.00	5.00	_____
<b>Irrigation (siphon)</b>					
Labor .....	Hours	2.5	10.00	25.00	_____
Water rent .....	Share	1	10.00	10.00	_____
Repairs/maintenance .....	Acre	1	2.90	2.90	_____
Pumping .....	Acre foot	1.8	12.60	22.68	_____
<b>Harvesting</b>					
Custom combine .....	Acre	1	26.00	26.00	_____
Haul grain (custom) .....	Bushel	145	0.06	8.70	_____
Interest on operating capital @ 9.75% .....				7.12	_____
<b>Total Variable Operating Costs</b> .....				<b>282.48</b>	_____
<b>Ownership costs (excludes cost of land)</b>					
Farm Insurance .....	Acre	1	2.00	2.00	_____
Machinery ownership .....	Acre	1	24.57	24.57	_____
Irrigation equipment .....	Acre	1	8.25	8.25	_____
<b>Total All Expenses</b> .....				<b>317.30</b>	_____
<b>Net returns to owner for unpaid labor, management, equity and risk</b>					
above operating costs .....				94.52	_____
above total costs .....				59.70	_____

**Assumptions:**

- Grain planted in May and harvested in October.
- Interest computed on land preparation and planting costs for 6 months and cultivation/fertilization, herbicide/irrigation costs for 3 months.
- Machinery operating costs include: fuel, oil, repairs, and labor.
- Machinery costs are based on 49 acres of corn.
- Machinery ownership costs include depreciation, interest, insurance, and housing.

Net returns per acre to operator above operating costs  
for various corn grain prices and levels of production

Bushels per acre	Selling Price (dollars)				
	2.08	2.34	2.60	2.86	3.12
123.25	-24.82	7.23	39.27	71.32	103.36
130.50	-10.17	23.76	57.69	91.62	125.55
137.75	4.47	40.29	76.10	111.92	147.73
145.00	19.12	56.82	94.52	132.22	169.92
152.25	33.76	73.35	112.93	152.52	192.10
159.60	48.41	89.88	131.35	172.82	214.29
166.75	63.05	106.41	149.76	193.12	236.47

Budget prepared by E. Bruce Godfrey, Shane Ellis, and Lyle Holmgren



## Enterprise Budget: Barley, Wheel-line Irrigation, Cache County, Utah, 2001

Item	Unit	Quantity per acre	\$/unit	Value/Cost per Acre	Your Farm
				Dollars	
<b>Receipts:</b>					
Barley	Bushels	76	2.20	167.20	
Straw	Tons	0.60	40.00	24.00	
<b>Total Receipts</b>				<b>191.20</b>	
<b>Variable Operating Costs</b>					
<b>Land Preparation</b>					
Plowing	Acre	1	10.11	10.11	
Discing	Acre	1	3.27	3.27	
Roller Harrow	Acre	2	2.83	5.66	
Land plane	Acre	2	3.80	7.60	
Planting	Acre	1	5.21	5.21	
Seed	Pounds	90	0.14	12.60	
<b>Fertilization</b>					
Nitrogen (34-0-0)	Pounds	221	0.09	18.79	
Custom application	Acre	1	4.50	4.50	
<b>Pesticides/Herbicides</b>					
2-4-D	Pint	1.25	1.56	1.95	
Diclotop/Hoelan	Pint	2.3	8.34	19.43	
Custom application	Acre	1	5.00	5.00	
<b>Irrigation (wheel line)</b>					
Labor	Hours	0.67	10.00	6.67	
Water rent	Share	1	10.00	10.00	
Repairs/maintenance	Acre	1	2.30	2.30	
Pumping	Acre foot	1.25	14.70	18.38	
<b>Harvesting</b>					
Custom combine	Acre	1	26.00	26.00	
Haul grain (custom)	Bushel	76	0.06	4.56	
Baling	Acre	1	3.74	3.74	
Haul straw	Large Bale	1.2	1.91	2.29	
Interest on operating capital @ 9.75%				4.29	
<b>Total Variable Operating Costs</b>				<b>172.34</b>	
<b>Ownership costs (excludes cost of land)</b>					
Farm Insurance	Acre	1	2.00	2.00	
Machinery ownership	Acre	1	28.43	28.43	
Irrigation equipment	Acre	1	8.25	8.25	
<b>Total All Expenses</b>				<b>211.02</b>	
<b>Net returns to owner for unpaid labor, management, equity and risk</b>					
above operating costs				18.86	
above total costs				<b>&lt; 19.82</b>	

**Assumptions:**

- Grain planted in March and harvested in August.
- Interest computed on land preparation and planting costs for 6 months and fertilization/herbicides/irrigation costs for 3 months.
- Machinery operating costs include: fuel, oil, repairs, and labor.
- Machinery costs are based on 40 acres of barley.
- Machinery ownership costs include depreciation, interest, insurance, and housing.

Net returns per acre to operator above operating costs  
for various barley prices and levels of production

Bushels per acre	Selling Price (dollars)				
	1.76	1.98	2.20	2.42	2.64
64.50	-33.96	-19.75	-5.53	8.68	22.89
68.40	-27.50	-12.45	2.60	17.65	32.69
72.20	-21.04	-5.15	10.73	26.61	42.50
76.00	-14.58	2.14	18.86	35.58	52.30
79.80	-8.12	9.44	26.99	44.55	62.11
83.60	-1.66	16.73	35.13	53.52	71.91
87.40	4.80	24.03	43.26	62.49	81.71

Budget prepared by E. Bruce Godfrey, Shane Ellis, and Clark Israelsen

## Per Capita Consumption of Major Food Commodities: United States, 1991-2000 1/

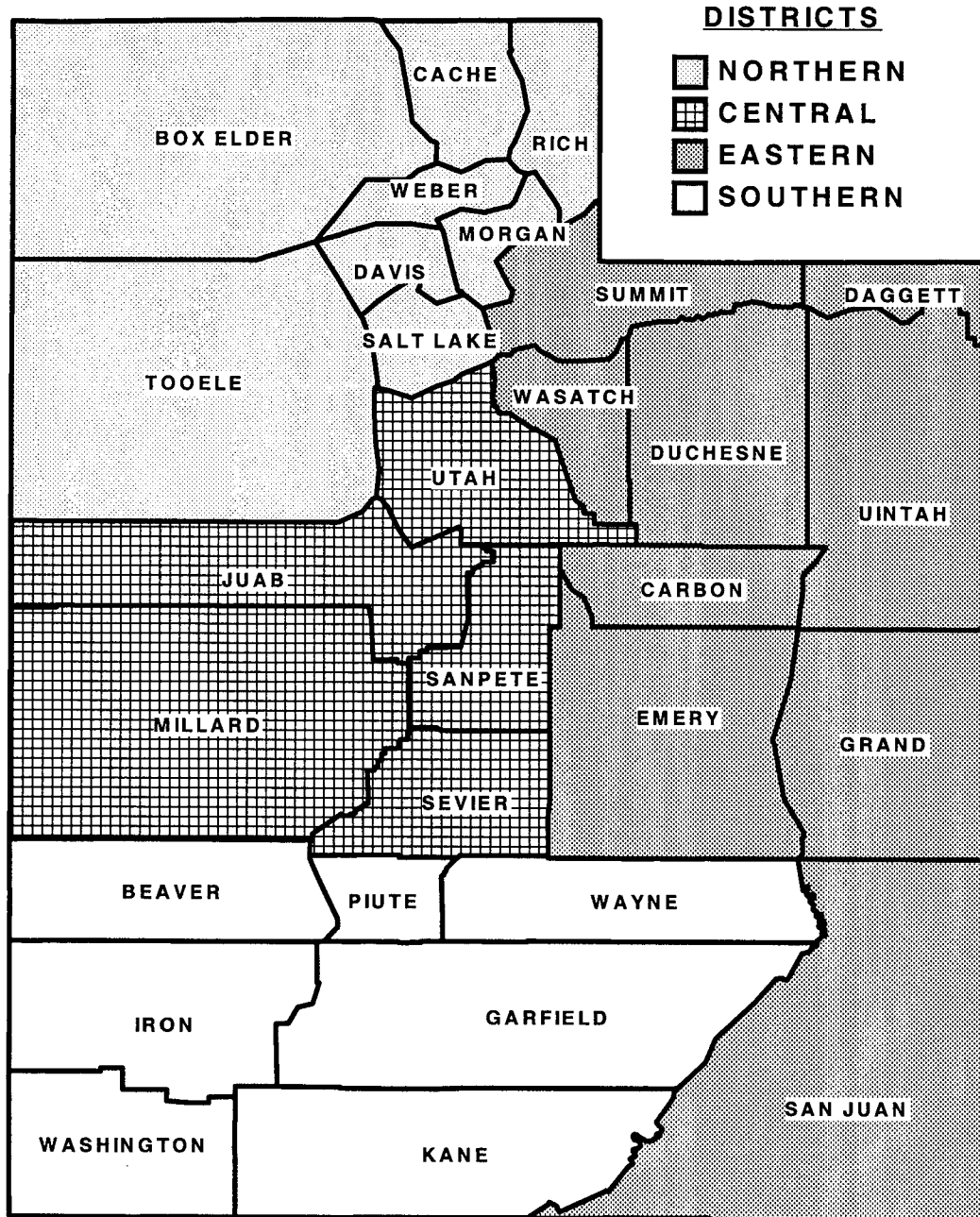
Commodity	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Red meats <u>2/ 3/ 4/</u> .....	111.6	113.5	111.3	113.6	113.6	111.1	109.1	113.3	115.1	113.5
Beef .....	62.9	92.5	61.0	63.0	63.6	64.1	62.7	63.6	64.4	64.4
Veal .....	0.8	0.8	0.8	0.8	0.8	1.0	0.8	0.7	0.6	0.5
Lamb & mutton .....	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.9	0.8	0.8
Pork .....	46.8	49.2	48.5	49.0	48.4	45.2	44.8	48.2	49.4	47.7
Poultry <u>2/ 3/ 4/</u> .....	58.2	60.5	62.0	62.7	62.1	63.1	63.1	63.7	66.8	66.5
Chicken .....	44.1	46.5	48.2	48.8	48.2	48.8	49.5	49.8	52.9	52.9
Turkey .....	14.0	14.0	13.9	13.9	13.9	14.3	13.6	13.9	13.8	13.6
Fish and shellfish <u>3/</u> .....	14.8	14.6	14.8	15.0	14.8	14.5	14.3	14.5	14.9	15.2
Eggs <u>4/</u> .....	30.0	30.1	30.1	30.3	29.9	29.9	30.2	30.8	32.1	32.2
Dairy products .....										
Cheese (excluding cottage) <u>2/ 5/</u> .....	25.0	25.9	26.1	26.6	26.9	27.3	27.5	27.8	29.0	29.8
American .....	11.0	11.3	11.3	11.4	11.7	11.8	11.8	11.9	12.6	--
Italian .....	9.3	9.9	9.8	10.2	10.3	10.6	10.8	11.1	11.5	--
Other Cheese <u>6/</u> .....	4.6	4.7	5.0	5.0	5.0	4.9	4.9	4.7	4.9	--
Cottage cheese .....	3.3	3.1	2.9	2.8	2.7	2.6	2.6	2.7	2.6	2.6
Beverage milks <u>2/</u> .....	220.5	217.2	211.8	211.4	207.2	206.8	203.2	200.5	199.2	194.9
Fluid whole milk <u>7/</u> .....	87.1	83.5	79.5	78.0	74.4	73.5	71.4	70.2	70.7	69.8
Fluid lower fat milk <u>8/</u> .....	109.6	108.8	105.8	104.9	101.3	100.1	98.1	96.6	96.0	95.1
Fluid skim milk .....	23.8	24.9	26.5	28.5	31.5	33.2	33.7	33.7	32.5	30.0
Fluid cream products <u>9/</u> .....	7.7	8.0	8.0	8.0	8.3	8.6	8.9	9.0	9.5	9.9
Yogurt (excluding frozen) .....	4.2	4.2	4.2	4.6	5.0	4.8	5.1	5.0	4.9	5.4
Ice cream .....	16.2	16.2	16.0	16.0	15.5	15.6	16.1	16.3	16.7	16.5
Lowfat ice cream <u>10/</u> .....	7.4	7.0	6.9	7.5	7.4	7.5	7.8	8.1	7.5	7.5
Frozen yogurt .....	3.5	3.1	3.5	3.4	3.4	2.5	2.0	2.1	1.9	1.8
All dairy products, milk equivalent, milkfat basis <u>11/</u> .....	564.1	563.0	569.8	580.1	576.6	566.6	567.5	572.8	584.9	593.0
Fats and oils - total fat content .....	64.6	66.5	69.2	67.3	65.4	64.2	63.7	64.3	67.0	74.5
Butter & margarine (product weight) .....	14.8	15.2	15.6	14.7	13.6	13.3	12.5	12.6	12.6	12.8
Shortening .....	22.3	22.3	25.0	23.9	22.2	21.9	20.5	20.5	21.1	23.1
Lard & edible tallow (direct use) .....	1.8	3.5	3.4	4.2	4.3	4.6	4.0	5.1	5.6	5.9
Salad & cooking oils .....	26.3	27.1	26.6	25.9	26.5	25.7	28.1	27.3	28.8	33.7
Fruits and vegetables <u>12/</u> .....	651.9	677.9	690.1	702.3	690.5	698.1	708.0	699.2	705.4	707.7
Fruit .....	254.2	282.0	280.8	287.7	282.0	279.0	289.6	284.1	289.8	279.4
Fresh fruits .....	112.5	122.9	123.6	125.0	122.6	126.1	129.5	128.9	129.5	126.8
Canned fruit .....	19.7	22.8	20.6	20.7	17.3	18.4	20.1	17.0	19.2	17.4
Dried fruit .....	12.2	10.7	12.5	12.7	12.7	11.1	10.6	12.1	10.2	10.5
Frozen fruit .....	3.8	3.9	3.7	3.7	4.2	3.9	3.6	4.1	3.7	3.7
Selected fruit juices .....	105.5	121.1	120.2	125.1	125.0	119.2	125.2	121.6	126.8	120.6
Vegetables .....	397.7	395.9	409.3	414.6	408.5	419.1	418.4	415.1	415.6	428.3
Fresh .....	170.8	174.2	180.8	186.8	180.9	186.0	190.2	186.4	191.9	201.7
Canning .....	114.0	111.7	112.0	111.2	109.4	107.8	106.0	107.1	103.3	104.7
Freezing .....	72.4	70.5	75.4	77.6	78.9	83.4	81.6	80.5	81.0	79.7
Dehydrated and chips .....	32.7	31.4	33.4	30.7	31.0	33.9	32.7	32.5	30.6	33.7
Pulses .....	7.8	8.1	7.7	8.3	8.3	7.9	7.9	8.7	8.8	8.6
Peanuts (shelled) .....	6.5	6.2	6.0	5.7	5.6	5.6	5.8	5.8	6.0	5.7
Tree nuts (shelled) .....	2.2	2.2	2.3	2.3	1.9	1.9	2.1	2.2	2.5	2.5
Flour and cereal products <u>13/</u> .....	182.3	184.7	189.3	192.0	190.3	196.3	197.3	196.1	196.9	199.9
Wheat flour .....	136.6	138.1	142.2	143.0	140.1	146.5	146.9	144.9	144.0	146.3
Rice (milled basis) .....	16.2	16.7	16.6	18.0	18.7	17.6	18.1	18.3	19.5	19.7
Caloric sweeteners <u>14/</u> .....	137.5	140.5	143.4	145.9	148.0	148.5	151.3	152.6	155.0	152.4
Coffee (green bean equiv.) .....	10.3	10.0	9.0	8.1	7.9	8.7	9.1	9.3	9.8	10.3
Cocoa (chocolate liquor equiv.) .....	4.6	4.5	4.3	3.8	3.6	4.2	4.0	4.3	4.5	4.7

--Not available. 1/ In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, and ending stocks. Calendar-year data, except fresh citrus fruits, peanuts, tree nuts, and rice, which are on crop-year basis. 2/ Totals may not add due to rounding. 3/ Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4/ Excludes shipments to the U.S. territories. 5/ Whole and part-skim milk cheese. Natural equivalent of cheese and cheese products. 6/ Includes Swiss, Brick, Muenster, cream, Neufchatel, Blue, Gorgonzola, Edam, and Gouda. 7/ Plain and flavored. 8/ Plain and flavored, and buttermilk. 9/ Heavy cream, light cream, half and half, eggnog, sour cream, and dip. 10/ Formerly known as ice milk. 11/ Includes condensed and evaporated milk and dry milk products. 12/ Farm weight. 13/ Includes rye, corn, oats, and barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, and fuel. 14/ Dry weight equivalent.

Source: Economic Research Service/USDA - Agricultural Outlook/June-July 2002; Information contact: Jane E. Allshouse (202) 694-5449

# **Notes...**

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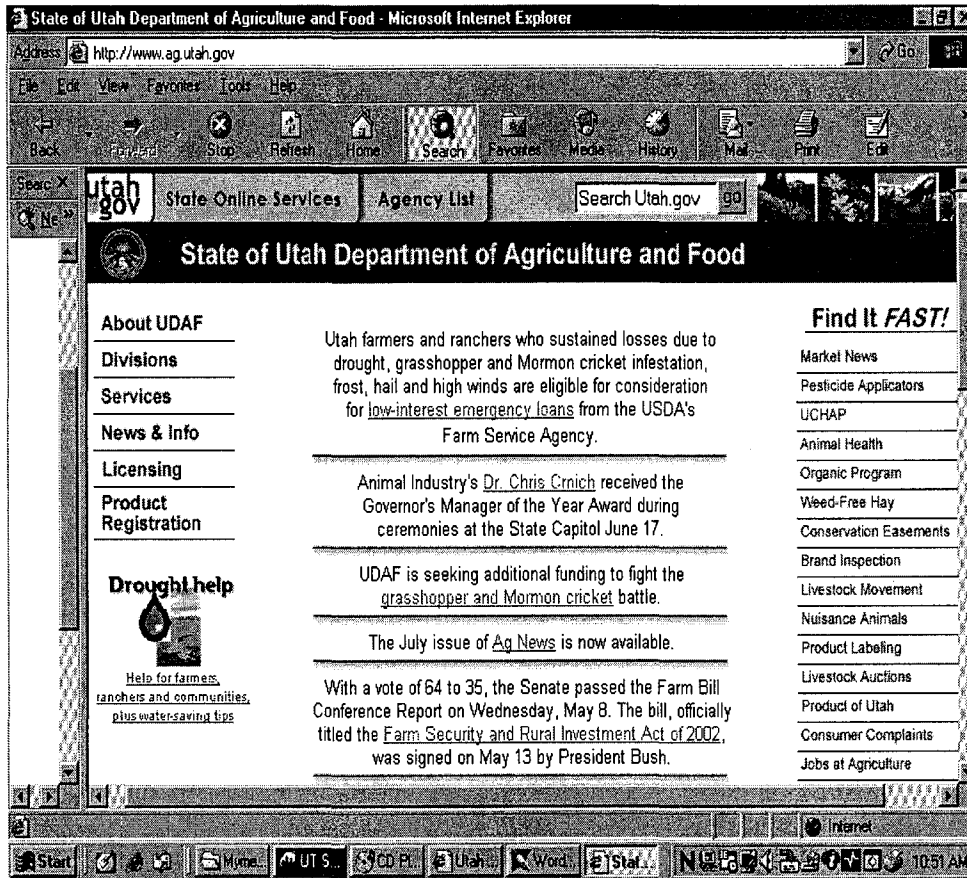
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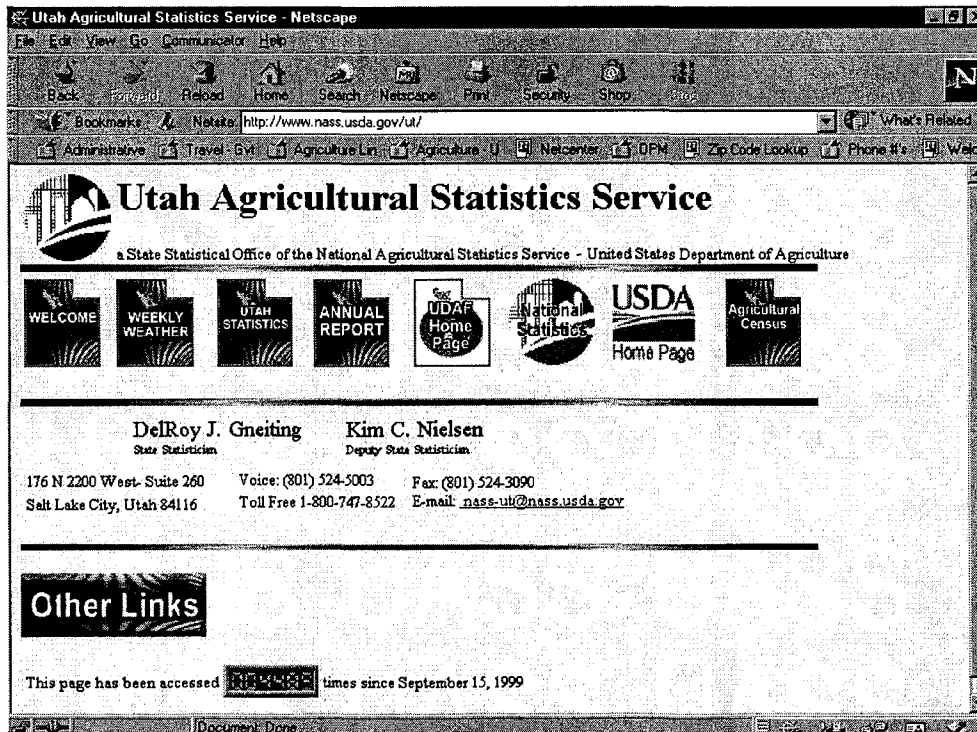


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