

2001 North Dakota Custom Rates Part I - Early Season Operations

August 31, 2001

Introduction

The data in this report are the result of a July survey conducted by the USDA's North Dakota Agricultural Statistics Service. Approximately 2,300 reports from aerial sprayers, farmers/ranchers, and other custom operators were tabulated. The survey was designed to provide state and regional averages for custom work rates. The early season survey has been conducted every three years since 1962, except during the early 1980's when it was conducted every other year.

Appreciation is expressed to all survey participants who provided the data for this report and also to the North Dakota State University Extension Service personnel for their assistance on this project. Funding was provided by the North Dakota State University Experiment Station and Extension Service.

The Data

This report contains state and regional level custom work rates for moldboard plowing, chisel plowing, field cultivating, tillage, planting, fertilizer and pesticide application, haying operations and other custom work.

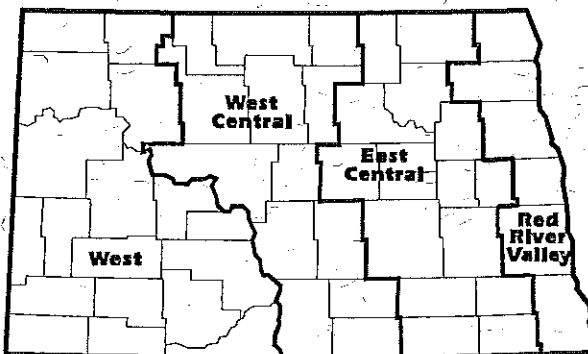
Included for each operation are the number of reports, range, most frequently reported and average rates. Also included are state level

1998 average rates, 2001 rates as a percent of 1998, and historical comparisons back to 1980 for selected operations. Regional averages are reported where there are a sufficient number of reports. We advise the reader to exercise discretion when using rates where fewer than fifteen reports were tabulated.

The range shows the minimum and maximum rate reported for each custom operation. The range is affected by the locality of the reporter and the size of the custom operator. A farmer/rancher who does a small amount of custom work for his or her neighbors may charge less than a large-scale operator.

The rates in this report include charges for equipment, power, fuel, and the operator. Exchange work is not considered custom work for this survey.

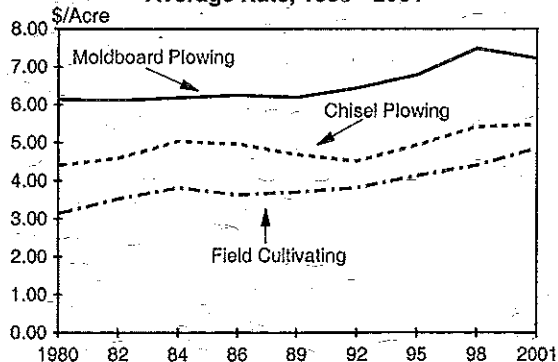
FARMING REGIONS



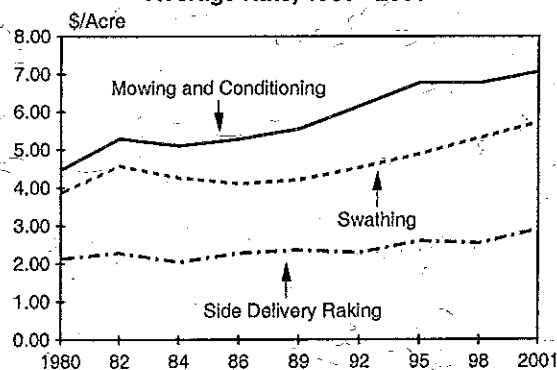
Other Reports

A late season custom rates survey will be conducted in October. It will collect data on harvesting, grain drying, crop and hay hauling and other miscellaneous custom rates. This information will be released in November.

Land Tillage
Average Rate, 1980 - 2001



Haying Operations
Average Rate, 1980 - 2001



LAND TILLAGE, SMALL GRAIN SEEDING AND ROW CROP PLANTING

STATEWIDE AVERAGES, NORTH DAKOTA, 2001

Operation	2001				1998 Average Rate	2001 as Percent of 1998
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
	- No. -			Dollars Per Acre		- Pct. -
LAND TILLAGE						
Primary Tillage (Deep)						
Plowing (Moldboard)	67	1.00-18.00	6.00	7.22	7.48	97
Alfalfa Sod Breaking (Moldboard)	53	1.00-20.00	10.00	8.59	8.42	102
Heavy Disking	114	2.50-18.00	6.00	6.43	6.19	104
Chisel Plowing	128	2.00-10.50	5.00	5.47	5.41	101
Sub Soiling (16-20 in.)	33	4.00-18.00	8.00	8.59	8.09	106
Disk/Chisel Plowing	70	2.00-15.00	6.00	6.63	6.05	110
Secondary Tillage (Shallow)						
Field Cultivation	149	1.50-15.00	5.00	4.85	4.40	110
One-Way Disking	59	1.50-11.00	5.00	5.26	5.00	105
Tandem Disking	102	1.50-12.00	5.00	5.44	5.15	106
Rod Weeder	26	1.75-10.00	4.00	4.78	4.12	116
Rotary Hoe	51	1.00-10.00	3.00	3.94	3.74	105
Light Harrowing	94	0.75- 8.00	3.00	3.18	NA	NA
Heavy Harrowing	106	1.00- 8.00	3.00	3.62	NA	NA
Row Crop Cultivation	85	1.00- 8.00	4.00	4.20	4.27	98
SMALL GRAIN SEEDING						
With Fertilizer						
Regular Drilling	99	3.00-14.00	7.00	7.30	6.48	113
Drilling & Tillage	82	3.25-20.00	10.00	9.08	8.14	112
Pony Press Drill	29	3.00-20.00	10.00	9.59	8.15	118
Air Seeding	302	2.00-20.00	10.00	9.34	8.29	113
Minimum Tillage Drilling	149	2.00-17.00	10.00	10.17	9.32	109
Without Fertilizer						
Regular Drilling	89	3.00-12.00	6.00	6.38	6.27	102
Drilling & Tillage	71	2.50-18.00	8.00	8.02	7.97	101
Pony Press Drill	27	1.50-15.00	8.00	8.04	7.57	106
Air Seeding	215	3.50-15.00	10.00	8.50	7.92	107
Minimum Tillage Drilling	120	3.00-15.00	10.00	9.19	9.00	102
ROW CROP PLANTING						
With Fertilizer						
Corn, Soybean, Sunflower	119	2.50-14.00	5.00	7.54	6.86	110
Dry Edible Beans	47	3.00-18.00	10.00	8.22	7.41	111
Potato	10	4.00-15.00	10.00	10.30	7.19	143
Sugarbeet	10	6.00-20.00	9.00	12.40	7.85	158
Without Fertilizer						
Corn, Soybean, Sunflower	131	2.00-14.00	6.00	6.97	6.47	108
Dry Edible Beans	46	3.00-16.00	5.00	7.71	7.73	100
Potato	9	4.00-12.50	9.00	9.00	7.43	121
Sugarbeet	10	6.00-15.00	9.00	10.35	7.47	139
Minimum Tillage With Fertilizer						
Corn, Soybean, Sunflower	73	3.00-18.00	12.00	9.36	8.50	110
Minimum Tillage Without Fertilizer						
Corn, Soybean, Sunflower	55	3.00-14.00	10.00	8.59	8.22	105

FERTILIZER AND PESTICIDE APPLICATION AND HAYING OPERATIONS

STATEWIDE AVERAGES, NORTH DAKOTA, 2001

Operation	2001				1998 Average Rate	2001 as Percent of 1998
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
	- No. -			----- Dollars Per Acre -----		- Pct. -
FERTILIZER APPLICATION						
Dry Fertilizer						
Broadcast	490	0.75- 9.00	3.50	3.64	3.27	111
Deep Banded	82	1.00-12.00	6.00	6.10	5.44	112
Liquid Fertilizer						
Anhydrous Ammonia	136	1.00-19.00	4.00	4.49	3.70	121
With Knife Applicator	194	1.00-12.00	5.00	5.33	5.11	104
While Chiseling	120	1.00-12.00	5.00	6.32	5.79	109
PESTICIDE APPLICATION						
By Surface Vehicles						
Herbicides						
Broadcast, Liquid	535	1.00-13.00	4.00	3.89	3.32	117
Dry	173	0.50-11.00	4.00	3.93	3.35	117
Incorporated, Liquid	150	2.00-13.00	4.00	4.80	4.71	102
Dry	89	1.00-10.00	4.00	4.87	5.06	96
Insecticides						
Broadcast, Liquid	312	1.00-12.00	4.00	3.93	3.38	116
Dry	109	2.00-10.00	4.00	4.04	3.50	115
Incorporated, Liquid	115	2.00-15.00	4.00	4.53	4.75	95
Dry	68	2.50-12.00	4.00	4.71	4.95	95
Fungicides	245	2.00- 7.35	4.00	4.00	3.60	111
Desiccants	181	2.50-12.00	4.00	4.07	3.62	112
By Aircraft (All Pesticides)						
1 Gallon	181	2.00- 7.50	4.00	4.02	3.56	113
2 - 3 Gallons	247	2.00- 6.20	4.50	4.22	3.81	111
4 - 5 Gallons	267	2.00- 7.50	4.50	4.47	4.13	108
Over 5 Gallons	146	1.00-10.00	5.00	4.88	4.54	107
HAYING OPERATIONS						
Mowing and Raking						
Mowing	76	1.00-12.50	4.00	5.27	4.44	119
Mowing and Conditioning	153	2.50-18.00	7.00	7.06	6.76	104
Swathing	131	1.00-12.50	7.00	5.72	5.31	108
Side Delivery Raking	69	0.50- 6.00	3.00	2.90	2.54	114
Baling (Wire or Twine Included)						
				----- Dollars Per Bale -----		
Small Square Bales, 250 Lbs or less	70	0.06- 4.00	0.50	0.81	0.62	131
Large Square Bales, Over 250 Lbs	44	1.50-25.00	5.00	7.33	6.34	116
Round Bales, 1,500 Lbs or less	337	2.00-18.00	5.00	5.71	NA	NA
Round Bales, Over 1,500 Lbs.	178	3.00-25.00	6.00	6.88	6.11	113
Mechanized Loose Hay Stacking						
				----- Dollars Per Stack -----		
Stack, 1.5 - 3 Ton	10	4.50-33.00	20.00	18.50	17.06	108
Stack, 3 - 6 Ton	13	7.00-40.00	25.00	24.23	24.06	101
Stack, Over 6 Ton	6	12.00-50.00	35.00	30.00	30.64	98

OTHER CUSTOM WORK AND HISTORICAL DATA

OTHER CUSTOM WORK, STATEWIDE AVERAGES, NORTH DAKOTA, 2001

Operation	2001				1998 Average Rate	2001 as Percent of 1998
	Number of Reports	Range in Rates		Most Frequent Rate Reported	Average Rate	
	- No. -	----- Dollars Per Head -----				- Pct. -
Branding Calves	38	0.50-	5.00	1.00	1.58	127
Shearing Sheep	69	0.50-	5.00	2.00	2.15	118
Custom Feeding Livestock		----- Dollars Per Head Per Day -----				
Weaned Calves	56	0.25-	3.00	1.00	1.01	92
Yearlings and Cull Cows	50	0.20-	3.00	1.00	1.12	98
Wintering Pregnant Beef Cows	71	0.30-	5.00	1.00	1.22	114
Calving Out Cows	34	0.30-	6.00	1.00	1.93	129
On-Farm Feed Grinding & Mixing		----- Dollars Per Ton -----				
Mobile Truck	23	2.00-	50.00	10.00	14.83	109
PTO Unit	19	0.20-	30.28	10.00	10.26	90
Tub Grinding Hay		----- Dollars Per Hour -----				
Farmer Supplies Power	28	10.00-	80.00	60.00	44.00	93
Power Supplied	69	10.00-	125.00	100.00	79.62	112
Self Contained Unit	160	20.00-	150.00	100.00	85.01	110
Pneumatic (Vacuum) Handling of Grain		----- Dollars -----				
Per Bushel	213	0.01-	0.70	0.05	0.08	114
Per Cwt.	28	0.02-	0.50	0.12	0.13	108
Loader Work		----- Dollars Per Hour -----				
Skid Steer Loader	246	6.00-	80.00	25.00	34.05	107
Tractor/Loader	147	10.00-	75.00	50.00	35.18	105
Industrial Loader	230	15.00-	125.00	75.00	62.21	106
Post Hole		----- Dollars Per Hole -----				
Digging	64	0.50-	10.00	1.00	2.49	105

HISTORICAL DATA, STATEWIDE AVERAGES, NORTH DAKOTA, 1980 - 2001

Operation	1980	1982	1984	1986	1989	1992	1995	1998	2001
	----- Dollars Per Acre -----								
Plowing (Moldboard)	6.14	6.11	6.18	6.25	6.19	6.43	6.78	7.48	7.22
Chisel Plowing	4.40	4.59	5.03	4.96	4.68	4.51	4.93	5.41	5.47
Field Cultivation	3.14	3.52	3.81	3.63	3.70	3.81	4.13	4.40	4.85
Small Grain Drilling									
Regular, With Fertilizer	4.42	4.68	4.54	4.78	4.76	5.28	6.00	6.48	7.30
Regular, Without Fertilizer	3.87	4.14	4.40	4.44	4.53	4.76	5.44	6.27	6.38
Air Seeding *	4.99	4.80	4.82	5.46	5.27	6.29	7.36	7.92	8.50
Minimum Tillage Drilling *	NA	5.47	6.19	7.06	7.08	8.02	8.60	9.00	9.19
Fertilizer Application									
Dry Fertilizer (Broadcast)	2.14	2.58	2.44	2.29	2.42	2.66	2.95	3.27	3.64
Liquid Fertilizer	2.52	3.08	3.23	3.10	3.18	3.33	3.44	3.70	4.49
Anhydrous Ammonia									
With Knife Applicator	NA	NA	4.20	4.35	4.14	4.16	4.66	5.11	5.33
While Chiseling	NA	NA	4.95	4.90	4.92	5.09	5.38	5.79	6.32
Ground Application of:									
Liquid Herbicides (Broadcast)	1.86	2.08	2.19	2.02	2.21	2.48	2.85	3.32	3.89
Liquid Insecticides (Broadcast)	2.14	2.11	2.23	2.27	2.37	2.65	2.88	3.38	3.93
Haying									
Mowing and Conditioning	4.47	5.29	5.10	5.28	5.55	6.15	6.77	6.76	7.06
Swathing	3.87	4.57	4.26	4.11	4.21	4.53	4.89	5.31	5.72
Side Delivery Raking	2.13	2.28	2.04	2.28	2.36	2.29	2.60	2.54	2.90
Post Holes									
Digging	1.14	1.42	1.65	1.96	1.71	1.90	1.82	2.38	2.49

1/ Without Fertilizer NA = Not Available

FARMING REGION AVERAGES, NORTH DAKOTA, 2001

Region	Moldboard Plowing				Heavy Disking				Chisel Plowing			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	12	1.00-18.00	6.00	7.50	22	2.50-14.00	7.00	6.25	22	2.50- 9.00	6.00	5.23
WC	16	1.40-10.00	6.00	6.25	30	3.00-18.00	6.00	6.60	29	2.00- 7.50	5.00	4.94
EC	25	3.00-10.50	8.00	7.74	42	3.00-10.00	6.00	6.46	55	3.00-10.50	5.00	5.54
RRV	14	1.00-15.00	6.00	7.14	20	3.00-11.00	5.00	6.28	22	4.00-10.00	5.00	6.23
STATE	67	1.00-18.00	6.00	7.22	114	2.50-18.00	6.00	6.43	128	2.00-10.50	5.00	5.47

Region	Field Cultivation				Tandem Disking				Light Harrowing			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	26	2.00- 7.00	4.00	4.86	16	2.75- 8.00	6.00	5.27	14	1.00-6.50	3.00	3.43
WC	33	1.50- 8.00	5.00	4.14	30	1.50- 9.00	5.00	5.25	26	0.90-8.00	3.00	3.27
EC	64	1.50- 8.00	5.00	4.70	36	2.00-10.00	6.00	5.39	37	0.75-6.00	2.00	3.20
RRV	26	3.00-15.00	4.00	6.09	20	3.00-12.00	5.00	5.95	17	0.75-5.50	3.00	2.81
STATE	149	1.50-15.00	5.00	4.85	102	1.50-12.00	5.00	5.44	94	0.75-8.00	3.00	3.18

Region	Heavy Harrowing				Row Crop Cultivation				Regular Drilling With Fertilizer			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	21	1.50-5.00	3.00	3.48	10	1.00-6.00	1.00	3.70	18	3.00-13.00	8.00	8.36
WC	36	1.00-8.00	4.00	3.65	22	1.00-8.00	5.00	4.32	23	3.00-14.00	5.00	7.12
EC	35	1.00-7.00	3.00	3.72	35	1.00-8.00	4.00	4.30	37	3.00-12.00	7.00	7.11
RRV	14	1.00-5.50	3.00	3.48	18	1.00-7.50	4.00	4.14	21	3.50-12.00	7.00	6.90
STATE	106	1.00-8.00	3.00	3.62	85	1.00-8.00	4.00	4.20	99	3.00-14.00	7.00	7.30

Region	Drilling and Tillage With Fertilizer				Air Seeding With Fertilizer				Minimum Tillage With Fertilizer			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	15	3.25-14.00	10.00	9.28	71	5.00-18.00	10.00	10.40	45	3.75-15.00	10.00	10.05
WC	24	4.00-20.00	6.00	8.67	94	2.00-20.00	10.00	9.35	41	2.00-17.00	8.00	9.66
EC	28	3.50-15.00	9.00	9.13	98	3.00-13.00	7.00	8.73	49	3.25-14.00	12.00	10.67
RRV	15	6.00-20.00	10.00	9.43	39	3.50-13.00	8.00	8.89	14	3.50-15.00	8.00	10.32
STATE	82	3.25-20.00	10.00	9.08	302	2.00-20.00	10.00	9.34	149	2.00-17.00	10.00	10.17

Region	Corn, Soybean and Sunflower Planting Without Fertilizer				Dry Fertilizer Application (Broadcast)				Liquid Fertilizer Application			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	17	5.00-12.00	6.00	7.49	92	0.75-6.00	3.50	3.46	8	3.00- 7.00	3.50	4.53
WC	37	2.00-11.00	6.00	6.55	104	1.75-7.00	3.50	3.46	27	3.50-19.00	3.75	5.36
EC	56	3.00-14.00	7.00	6.98	175	1.00-9.00	4.00	3.68	54	1.00-15.00	3.50	4.22
RRV	21	3.50-12.00	5.00	7.27	119	1.50-7.00	4.00	3.86	47	3.50-10.00	4.00	4.29
STATE	131	2.00-14.00	6.00	6.97	490	0.75-9.00	3.50	3.64	136	1.00-19.00	4.00	4.49

FARMING REGION AVERAGES, NORTH DAKOTA, 2001

Region	Anhydrous Ammonia With Knife Applicator				Anhydrous Ammonia With Chisel				Liquid Herbicide Application (Broadcast)			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	52	1.50- 9.00	5.00	5.33	21	4.50- 9.00	5.00	6.14	105	1.00- 6.00	3.50	3.42
WC	36	1.00-10.00	6.00	4.99	29	1.00-10.00	6.00	6.23	131	1.25-13.00	3.50	3.95
EC	67	1.50-10.00	5.00	5.31	44	2.50-12.00	5.00	6.09	179	1.50-11.00	4.00	3.94
RRV	39	3.50-12.00	6.00	5.66	26	3.75-12.00	8.00	6.93	120	2.50- 9.00	4.00	4.14
STATE	194	1.00-12.00	5.00	5.33	120	1.00-12.00	5.00	6.32	535	1.00-13.00	4.00	3.89

Region	Liquid Insecticide Application (Broadcast)				Aerial Spraying 2 - 3 Gallons Per Acre				Aerial Spraying 4 - 5 Gallons Per Acre			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Acre ---			
W	52	2.50-10.00	3.50	3.56	41	3.00-6.20	3.50	4.18	34	3.00-7.35	5.00	4.63
WC	73	2.75- 9.00	3.50	3.80	55	2.00-5.50	4.00	3.85	57	2.00-6.25	4.00	4.29
EC	106	1.00-12.00	4.00	3.99	94	3.00-6.00	4.50	4.29	100	2.50-6.00	4.50	4.46
RRV	81	2.50- 7.00	4.00	4.22	57	3.00-6.00	4.50	4.49	76	3.00-7.50	4.50	4.56
STATE	312	1.00-12.00	4.00	3.93	247	2.00-6.20	4.50	4.22	267	2.00-7.50	4.50	4.47

Region	Mowing & Conditioning Hay				Swathing Hay				Small Square Baling 250 Lbs. or Less			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Acre ---				--- Dollars Per Acre ---				--- Dollars Per Bale ---			
W	53	3.00-10.00	6.00	6.82	56	1.50-10.00	7.00	6.10	17	0.15-1.50	0.40	0.47
WC	47	3.00-18.00	7.00	7.62	40	1.00-12.00	7.00	5.54	24	0.06-3.00	0.50	1.03
EC	40	2.50-10.00	10.00	6.83	28	2.00-10.00	4.00	5.18	19	0.20-4.00	0.50	0.99
RRV	13	2.50-10.00	6.00	6.73	7	1.00-12.50	NA	5.93	10	0.12-2.00	0.40	0.53
STATE	153	2.50-18.00	7.00	7.06	131	1.00-12.50	7.00	5.72	70	0.06-4.00	0.50	0.81

Region	Round Baling 1,500 Lbs. or Less				Round Baling Over 1,500 Lbs.				Tub Grinding Self-Contained Unit			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Bale ---				--- Dollars Per Bale ---				--- Dollars Per Hour ---			
W	118	2.50-10.00	5.00	5.83	56	4.00-13.00	6.00	6.79	57	35.00-130.00	100.00	94.39
WC	98	2.00-18.00	5.00	5.65	59	3.00-25.00	5.00	6.90	56	37.50-100.00	80.00	76.91
EC	93	3.00-12.00	5.00	5.58	52	3.50-25.00	6.00	6.72	39	20.00-150.00	75.00	82.95
RRV	28	3.00-15.00	5.00	5.85	11	5.00-20.00	6.00	8.09	8	55.00-100.00	100.00	85.00
STATE	337	2.00-18.00	5.00	5.71	178	3.00-25.00	6.00	6.88	160	20.00-150.00	100.00	85.01

Region	Pneumatic Grain Handling				Skid Steer Loader				Industrial Loader			
	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate	No. Rpts.	Range	Most Frequent	Average Rate
	--- Dollars Per Bushel ---				--- Dollars Per Hour ---				--- Dollars Per Hour ---			
W	52	0.02-0.35	0.05	0.08	70	10.00-55.00	25.00	32.96	49	15.00-100.00	50.00	59.59
WC	59	0.02-0.25	0.10	0.07	75	9.00-80.00	40.00	37.45	75	15.00-120.00	75.00	64.13
EC	64	0.02-0.70	0.05	0.09	74	6.00-50.00	25.00	30.78	64	15.00-105.00	75.00	60.58
RRV	38	0.01-0.50	0.05	0.08	27	10.00-80.00	40.00	36.37	42	25.00-125.00	75.00	64.33
STATE	213	0.01-0.70	0.05	0.08	246	6.00-80.00	25.00	34.05	230	15.00-125.00	75.00	62.21