

Custom Farm Work Rates

■ ■ ■ ■ on North Dakota Farms, 2016

Ron Haugen, Farm Management Economist

The U.S. Department of Agriculture's North Dakota Agricultural Statistics Service, Fargo, in cooperation with the North Dakota State University Extension Service, conducted a survey of custom operators in North Dakota in 2016.

The survey of early season operations was conducted in July and August and covers tillage, planting, fertilizer and pesticide application, haying operations and other custom operations. The survey of late-season operations was conducted during September and October and includes data on harvesting, drying and hauling of crops, seed preparation, hauling hay and livestock, and other operations.

The custom rate survey is conducted every three years. The two 2016 surveys summarized more than 2,600 reports from farmers and ranchers, aerial sprayers, elevators, custom harvesters and other custom operators.

Also included in this survey are reported rental rates for tractors, combines, corn heads, grain carts, swathers and field rollers. Both surveys included a question on the price of diesel fuel that producers were paying at that time. Because this survey is conducted every third year and fuel cost is one of the more volatile components of operating costs, this presents a reference for any adjustments in charges between surveys.

Survey data for 2016 are summarized for the state as a whole. This publication shows the number of reports, the range in rates, most frequently reported rate and the average rate for each operation. Data broken down by North Dakota farming regions are no longer available.

Custom rates include charges for the equipment, tractor or power unit used, fuel, repairs and operator labor. Rates vary because of local supply and demand and costs of custom operators. Some of the low rates may represent charges by a farmer who did custom work to help out a neighbor but was not concerned about recovering full costs.

Custom operators who perform these operations as a main source of income would be expected to set rates that cover average operating costs, depreciation, return on investment, labor and management.

These rates are published as a guide in establishing rates for custom work, comparing ownership or leasing costs with custom work and settling accounts when two or more people exchange work.

Assistance in helping determine a fair custom rate may be obtained from county Extension agents or Extension Service specialists at North Dakota State University.

Custom rates should not be confused with the cost of owning and operating farm machinery. Presumably, custom rates are set with knowledge of the true cost of owning and operating machinery.

In practice, this is not always the case. For example, the average custom rate reported for field cultivation is \$9.36, while an economic engineering approach suggests a range of costs from \$5.57 to \$7.09 per acre, depending on the size of the equipment. Likewise, the average custom rate for combining corn is \$35.13 per acre, while the economic cost estimate is \$29.05 to \$46.36, depending on machine size.

Custom rates represent a market-derived price. They reflect the supply of and demand for the services rendered, which include the use of the machine, power, fuel, repairs and the operator. Custom rates are to machinery services as market prices are to commodities. Custom rates may deviate from the cost of machinery ownership and operation, just as the market price for commodities deviates from the cost of producing the commodity.

Ownership and operating costs represent an accounting of all the resources used. These costs include depreciation, interest, repairs, fuel, taxes, insurance, housing and labor. Supply and demand will impact the price paid for machinery, which then will affect the ownership costs. However, once a machine has been purchased, the ownership cost becomes fixed relative to the life of that machine.

LAND TILLAGE, SMALL GRAIN SEEDING AND ROW CROP PLANTING

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	2016				2013 Average Rate	2016 as Percent of 2013
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
DIESEL FUEL	(number) 693	(dollars per gallon) 0.90-3.49	(dollars per gallon) 2.29	(dollars per gallon) 1.99	(dollars per gallon) 3.67	(percent) 54
LAND TILLAGE	(number)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(percent)
Primary Tillage (Deep)						
Plowing (Moldboard)	8	2.00-25.00	1	10.88	11.88	92
Sod Breaking	5	9.00-45.00	1	21.40	15.83	135
Heavy Disking	17	8.00-30.00	15.00	14.03	12.04	117
Chisel Plowing	27	2.00-30.00	12.00	11.85	10.80	110
Sub Soiling (16-20 inches deep)	11	7.00-40.00	20.00	18.36	15.79	116
Disk/Chisel Plowing	11	4.50-35.00	12.00	12.65	12.08	105
Secondary Tillage (Shallow)						
Field Cultivation	39	1.50-30.00	1	9.36	8.97	104
One-Way Disking	9	6.50-30.00	1	13.39	9.99	134
Tandem Disking	10	2.50-30.00	15.00	11.80	10.39	114
Rod Weeder	2	2	2	2	8.00	(NA)
Rotary Hoe	6	1.50-30.00	1	8.92	7.87	113
Vertical Tillage	31	4.50-30.00	8.00	12.10	10.49	115
Land Rolling	67	2.00-20.00	5.00	5.53	5.45	101
Light Harrowing	15	0.75-20.00	1	6.32	6.15	103
Heavy Harrowing	15	1.00-25.00	6.00	7.27	7.22	101
Row Crop Cultivation	4	1.50-20.00	1	8.75	8.88	99
SMALL GRAIN SEEDING						
With Fertilizer						
Regular Drilling	18	8.50-25.00	1	17.97	13.69	131
Drilling & Tillage	11	10.00-30.00	15.00	18.73	15.54	120
Pony Press Drill	2	2	2	2	16.47	(NA)
Air Seeding	43	4.00-35.00	18.00	18.07	15.62	116
No Till Drill	24	9.50-39.00	15.00	20.99	16.27	129
Without Fertilizer						
Regular Drilling	16	8.00-35.00	1	16.94	13.24	128
Drilling & Tillage	5	10.00-19.00	10.00	14.60	14.60	100
Pony Press Drill	2	2	2	2	15.41	(NA)
Air Seeding	32	7.50-35.00	1	16.67	14.35	116
No Till Drill	32	6.00-35.00	16.00	17.80	15.06	118
ROW CROP PLANTING						
With Fertilizer						
Corn, Soybean, Sunflower (Regular)	31	8.50-32.00	20.00	18.25	16.36	112
Corn, Soybean, Sunflower (Air Seed)	19	3.00-35.00	20.00	18.21	15.67	116
Dry Edible Beans	12	7.50-45.00	1	20.13	16.11	125
Sugarbeet	(D)	(D)	(D)	(D)	19.51	(D)
Without Fertilizer						
Corn, Soybean, Sunflower (Regular)	26	6.00-30.00	20.00	17.33	15.08	115
Corn, Soybean, Sunflower (Air Seed)	16	9.00-35.00	20.00	18.80	15.24	123
Dry Edible Beans	10	9.00-45.00	25.00	21.60	15.36	141
Sugarbeet	(D)	(D)	(D)	(D)	19.19	(D)
No Till With Fertilizer						
Corn, Soybean, Sunflower	27	8.00-43.40	20.00	22.76	16.93	134
No Till Without Fertilizer						
Corn, Soybean, Sunflower	19	6.00-35.00	16.00	17.63	15.89	111

(D) Withheld to avoid disclosing data for individual operations. (NA) Not available.¹ Data not available due to multiple rates being reported at the highest frequency.

² No data reported.

FERTILIZER AND PESTICIDE APPLICATION AND HAYING OPERATIONS

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	2016				2013 Average Rate	2016 as Percent of 2013
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
	(number)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(dollars per acre)	(percent)
FERTILIZER APPLICATION						
Dry Fertilizer						
Broadcast	160	3.00-10.35	6.00	6.39	6.15	104
Deep Banded	9	10.00-40.00	¹	21.78	13.85	157
Liquid Fertilizer						
Broadcast	37	5.00-17.80	6.00	6.92	(NA)	(NA)
Side-Dressing	14	5.00-20.00	12.00	9.75	(NA)	(NA)
Anhydrous Ammonia						
With Knife Applicator	16	4.00-25.00	10.00	10.78	10.40	104
While Chiseling	8	4.75-35.00	12.00	15.16	12.44	122
PESTICIDE APPLICATION						
By Surface Vehicles						
Herbicides						
Broadcast, Liquid	167	4.00-17.00	6.00	6.57	6.35	103
Dry	34	4.00-8.00	6.50	6.28	6.34	99
Incorporated, Liquid	19	5.00-15.00	6.50	7.01	7.11	99
Dry	7	6.00-10.00	10.00	7.89	8.30	95
Insecticides						
Broadcast, Liquid	72	4.75-10.00	6.00	6.60	6.61	100
Dry	14	5.00-10.00	6.50	6.81	7.05	97
Incorporated, Liquid	10	6.25-13.00	6.50	7.98	7.31	109
Dry	(D)	(D)	(D)	(D)	8.20	(D)
Fungicides	90	3.50-15.00	¹	6.57	6.53	101
Desiccants	56	5.00-15.00	6.00	6.76	6.56	103
By Aircraft (All Pesticides)						
1 Gallon	51	6.00-9.25	8.00	7.74	7.85	99
2-3 Gallons	57	7.00-10.00	8.00	7.82	8.17	96
4-5 Gallons	51	7.25-9.50	8.00	7.93	8.41	94
Over 5 Gallons	31	6.50-11.00	8.00	8.17	9.44	87
HAYING OPERATIONS						
Mowing and Raking						
Mowing	17	1.00-45.00	10.00	12.06	8.85	136
Mowing and Conditioning	24	1.00-30.00	10.00	12.90	10.78	120
Swathing	14	4.50-25.00	¹	12.54	9.66	130
Raking	14	1.00-7.00	5.00	3.93	5.57	71
Baling (Wire or Twine Included)						
		(dollars per bale)	(dollars per bale)	(dollars per bale)	(dollars per bale)	
Small Square Bales, 250 lbs or less	6	1.00-2.50	2.00	1.79	2.80	64
Large Square Bales, Over 250 lbs	5	5.00-10.00	¹	8.40	9.64	87
Round Bales, 1,500 lbs or less	38	2.00-20.00	10.00	9.34	9.47	99
Round Bales, Over 1,500 lbs	18	5.00-15.00	10.00	10.08	10.53	96

(D) Withheld to avoid disclosing data for individual operations. (NA) Not available. ¹ Data not available due to multiple rates being reported at the highest frequency.

OTHER CUSTOM WORK AND HISTORICAL DATA

OTHER CUSTOM WORK, STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	2016				2013 Average Rate	2016 as Percent of 2013
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
	(number)	(dollars per head)	(dollars per head)	(dollars per head)	(dollars per head)	(percent)
Branding Calves	5	1.00-3.00	1.00	1.55	3.65	43
Shearing Sheep	4	1.50-4.75	¹	3.38	3.42	99
Custom Feeding Livestock		(dollars/head/day)	(dollars/head/day)	(dollars/head/day)	(dollars/head/day)	
Weaned Calves	8	1.00-8.00	2.00	2.48	1.96	126
Yearlings and Cull Cows	6	1.50-8.00	1.50	3.08	2.44	126
Wintering Pregnant Beef Cows	5	1.35-15.00	¹	5.02	2.24	224
Calving Out Cows	(D)	(D)	(D)	(D)	3.05	(D)
On-Farm Feed Grinding & Mixing		(dollars per ton)	(dollars per ton)	(dollars per ton)	(dollars per ton)	
Mobile Truck	(D)	(D)	(D)	(D)	19.99	(D)
PTO Unit	(D)	(D)	(D)	(D)	24.58	(D)
 Tub Grinding Hay		(dollars per hour)	(dollars per hour)	(dollars per hour)	(dollars per hour)	
Farmer Supplies Power	(D)	(D)	(D)	(D)	104.32	(D)
Power Supplied	6	125.00-400.00	250.00	235.83	154.50	153
Self Contained Unit	21	75.00-475.00	175.00	223.57	165.59	135
Pneumatic Handling of Grain	14	0.03-0.60	0.15	0.19	0.12	161
Post Hole Digging		(dollars per hole)	(dollars per hole)	(dollars per hole)	(dollars per hole)	
Digging	7	1.00-10.00	5.00	5.00	6.33	79
Building Multi-Strand Wire Fence (No Supplies Included)		(dollars)	(dollars)	(dollars)	(dollars)	
Per Rod	6	1.00-22.50	¹	13.60	11.08	123
Per Hour	(D)	(D)	(D)	(D)	28.70	(D)
Loader Work		(dollars per hour)	(dollars per hour)	(dollars per hour)	(dollars per hour)	
Skid-Steer Loader	25	22.00-150.00	50.00	60.96	59.84	102
Tractor Loader	11	25.00-150.00	30.00	66.64	65.79	101
Industrial Loader	11	50.00-175.00	¹	99.82	95.25	105

(D) Withheld to avoid disclosing data for individual operations. ¹ Data not available due to multiple rates being reported at the highest frequency.

HISTORICAL DATA, STATEWIDE AVERAGES, NORTH DAKOTA, 1992 - 2016

Operation	1992	1995	1998	2001	2004	2007	2010	2013	2016	
	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	(\$/acre)	
Plowing (Moldboard)	6.43	6.78	7.48	7.22	8.44	9.65	10.03	11.88	10.88	
Chisel Plowing	4.51	4.93	5.41	5.47	5.99	8.01	9.09	10.80	11.85	
Field Cultivation	3.81	4.13	4.40	4.85	5.15	6.96	7.65	8.97	9.36	
Small Grain Drilling										
Regular, With Fertilizer	5.28	6.00	6.48	7.30	7.95	10.32	12.37	13.69	17.97	
Regular, Without Fertilizer	4.76	5.44	6.27	6.38	7.18	9.53	10.93	13.24	16.94	
Air Seeding ¹	6.29	7.36	7.92	8.50	9.49	11.46	13.24	14.35	16.67	
No-Till Drilling ¹	8.02	8.60	9.00	9.19	10.26	12.14	14.37	15.06	17.80	
Fertilizer Application										
Dry Fertilizer (Broadcast)	2.66	2.95	3.27	3.64	3.87	4.54	5.17	6.15	6.39	
Liquid Fertilizer (Broadcast) ²									6.92	
Anhydrous Ammonia										
With Knife Applicator	4.16	4.66	5.11	5.33	6.12	7.62	9.39	10.40	10.78	
While Chiseling	5.09	5.38	5.79	6.32	6.61	8.76	10.00	12.44	15.16	
Ground Application of:										
Liquid Herbicides (Broadcast)	2.48	2.85	3.32	3.89	4.07	4.69	5.44	6.35	6.57	
Liquid Insecticides (Broadcast)	2.65	2.88	3.38	3.93	4.11	4.77	5.42	6.61	6.60	
Haying										
Mowing and Conditioning	6.15	6.77	6.76	7.06	7.14	8.95	9.73	10.78	12.90	
Swathing	4.53	4.89	5.31	5.72	6.01	7.88	9.13	9.66	12.54	
Raking	2.29	2.60	2.54	2.90	3.47	3.88	4.18	5.57	3.93	
Post Holes										
Digging	(\$/hole)	1.90	1.82	2.38	2.49	2.64	4.60	4.04	6.33	5.00

¹ Without fertilizer ² Data series began in 2016.

HARVESTING CROPS, SEED PREPARATION AND MACHINE RENTAL

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	2016				2013 Average Rate (\$/gallon)	2016 as Percent of 2013 (percent)
	No. Reports (number)	Range in Rates (\$/gallon)	Most Frequent Rate Reported (\$/gallon)	Average Rate (\$/gallon)		
Diesel Fuel	698	0.80-3.70	2.00	1.96	3.66	54
Harvesting Grain Crops:	(number)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(percent)
Swathing Grain						
Self-Propelled	19	3.00-15.00	10.00	10.00	11.76	85
Pull-Type.....	(D)	(D)	(D)	(D)	11.05	(D)
Swathing Canola:						
Self-Propelled.....	15	7.00-20.00	¹	11.93	12.01	99
Pull-Type.....	(D)	(D)	(D)	(D)	12.53	(D)
Combining From Swaths:						
Small Grains & Flaxseed	37	6.85-50.00	30.00	29.60	29.64	100
Dry Edible Beans	5	30.00-50.00	¹	40.00	38.58	104
Canola	18	12.00-40.00	¹	29.94	30.76	97
Straight Combining:						
Small Grains & Flaxseed.....	118	8.00-55.00	35.00	30.89	30.25	102
Corn.....	38	9.00-95.00	30.00	35.13	33.73	104
Sunflower.....	11	20.00-50.00	35.00	33.82	32.00	106
Soybeans	68	8.00-45.00	30.00	30.70	30.09	102
Dry Edible Beans	18	25.00-50.00	40.00	35.78	34.65	103
Canola	27	20.00-55.00	¹	34.37	32.01	107
Pulse Crops	17	24.00-45.00	40.00	36.24	(NA)	(NA)
Dry Bean Harvesting:						
Cutting Only (Knifing)	4	15.00-35.00	30.00	27.50	19.33	142
Windrowing (After Knifing).....	(D)	(D)	(D)	(D)	9.80	(D)
Cutting & Windrowing (One Operation)	(D)	(D)	(D)	(D)	26.67	(D)
Sugarbeet Harvesting:						
Topping.....	(D)	(D)	(D)	(D)	(D)	(D)
Lifting	(D)	(D)	(D)	(D)	(D)	(D)
Making Corn Silage:						
Field Chopping Only	12	35.00-101.00	¹	64.42	54.46	118
.....	(D)	(D)	(D)	(D)	388.89	(D)
Field Chopping and Hauling	20	40.00-120.00	100.00	81.21	62.88	129
.....	7	171.00-1,300.00	600.00	690.14	490.50	141
Shredding Corn Stalks	(D)	(D)	(D)	(D)	12.29	(D)
Seed Preparation:						
Seed Grain						
Cleaning Only	63	0.30-1.00	0.60	0.653	0.556	117
Treating Only	16	0.18-5.00	0.20	1.516	0.822	184
Cleaning and Treating.....	6	0.70-3.55	¹	1.858	0.874	213
Flaxseed						
Cleaning Only	11	0.50-2.00	¹	1.132	0.647	175
Treating Only	(D)	(D)	(D)	(D)	0.272	(D)
Cleaning and Treating.....	(D)	(D)	(D)	(D)	0.688	(D)
Machine Rental:						
Tractor						
Under 100 Horsepower..... ²	15	10.00-125.00	20.00	47.13	46.18	102
100-200 Horsepower..... ²	12	6.00-125.00	¹	56.75	67.83	84
Over 200 Horsepower	12	30.00-175.00	110.00	87.50	105.06	83
Combine	7	15.00-45.00	20.00	27.00	20.56	131
..... ²	15	20.00-280.00	¹	146.67	152.30	96
Corn Head Rental Only	6	8.00-15.00	15.00	12.00	12.09	99
..... ²	(D)	(D)	(D)	(D)	(D)	(D)
Field Roller	24	1.50-12.00	3.00	3.72	5.05	74
..... ²	(D)	(D)	(D)	(D)	(D)	(D)

(D) Withheld to avoid disclosing data for individual operations. (NA) Not Available. ¹ Data not available due to multiple rates being reported at the highest frequency.

² Rates for machine rentals are in tachometer hours.

DRYING GRAIN AND HAULING CROPS, HAY AND CATTLE

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	Basic Charge - 2016					2013 Average Rate	2016 as % of 2013	Extra Charge-2016	
	Number of Reports	Range In Rates	Most Frequent Rate Reported	Average Maximum Moisture Content	Average Rate			Number of Reports	For Each Additional 1% Moisture Removed
	(number)	(\$/unit)	(\$/unit)	(percent)	(\$/unit)	(\$/unit)	(percent)	(number)	(\$/unit)
Drying Grain:									
Small Grains bushels	15	0.02-0.35	0.10	15.58	0.115	0.179	64	12	0.050
Corn bushels	19	0.03-0.37	0.05	17.33	0.132	0.203	65	14	0.056
Sunflower cwt	(D)	(D)	(D)	(D)	(D)	0.223	(D)	(D)	(D)
Soybeans bushels	5	0.03-0.10	¹	14.94	0.062	0.219	28	(D)	(D)

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	Basic Charge – 2016					2013 Average Rate	2016 as % of 2013	Extra Charge-2016	
	Number of Reports	Range In Rates	Most Frequent Rate Reported	Average Base Mileage	Average Rate			Number of Reports	Per 10 Miles Over Base Mileage
	(number)	(\$/unit)	(\$/unit)	(miles)	(\$/unit)	(\$/unit)	(percent)	(number)	(\$/unit)
Hauling Crops:									
Wheat, All bushels	40	0.02-0.50	0.10	19.23	0.157	0.210	75	15	0.054
Barley bushels	13	0.04-0.80	¹	57.15	0.239	0.186	128	7	0.046
Oats..... bushels	5	0.10-0.30	0.10	23.60	0.186	0.138	135	(D)	(D)
Sunflower cwt	8	0.01-1.85	¹	119.13	0.883	0.604	146	4	0.085
Canola cwt	9	0.10-1.25	¹	80.89	0.600	0.391	153	4	0.108
Flaxseed bushels	7	0.10-1.00	0.10	53.86	0.279	0.191	146	4	0.068
Corn..... bushels	19	0.05-0.35	0.10	23.32	0.153	0.185	83	11	0.059
Sugarbeets tons	5	4.56-18.00	¹	19.00	8.012	(D)	(D)	(D)	(D)

STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	Basic Charge – 2016					2013 Average Rate	2016 as % of 2013	Loading Charge-2016	
	Number of Reports	Range In Rates	Most Frequent Rate Reported	Average Rate	Number of Reports			Charge	
	(number)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(percent)	(number)	(\$/load)	
Hauling Hay:									
By the Load (Loose & Bales):									
Less than 10 tons..... mile ²	8	1.50-30.00	¹	6.54	4.31	152	8	26.88	
10-20 tons mile ²	11	3.00-30.00	4.00	7.09	4.55	156	8	23.94	
Over 20 tons..... mile ²	16	1.75-30.00	¹	7.33	4.76	154	9	28.11	
Hauling Cattle:									
Gooseneck Trailer..... mile ³	19	2.00-10.00	¹	4.02	3.60	112	(D)	(D)	
Semi Trailer..... mile ³	24	2.00-7.00	¹	4.71	4.58	103	5	425.00	

(D) Withheld due to insufficient data. (NA) Not Available. ¹ Data not available due to multiple rates being reported at the highest frequency. ² Loaded mile excludes loading. ³ Loaded mile.

OTHER CUSTOM WORK AND HISTORICAL DATA

OTHER CUSTOM WORK, STATEWIDE AVERAGES, NORTH DAKOTA, 2016

Operation	2016				2013 Average Rate	2016 as Percent of 2013
	Number of Reports	Range in Rates	Most Frequent Rate Reported	Average Rate		
	(number)	(dollar/unit)	(dollars/unit)	(dollars/unit)	(dollars/unit)	(percent)
Custom Farming: ¹						
Small Grains	22	5.75-140.00	²	47.92	35.67	134
Row Crops	18	6.00-155.00	150.00	64.89	46.28	140
Miscellaneous:						
Mowing/Clipping CRP	14	4.00-50.00	10.00	12.50	10.42	120
.....	13	10.00-125.00	²	66.85	65.47	102
Mowing Road Ditches (not for hay)	16	10.00-200.00	100.00	103.44	(NA)	(NA)
.....	13	8.00-150.00	100.00	75.77	(NA)	(NA)
On Farm Grain Bin Storage.....	18	0.01-0.35	0.05	0.07	0.08	88
On Farm Grain Bin Storage	27	0.02-0.60	0.10	0.20	0.17	118
Machine Shed Rental.....	(D)	(D)	(D)	(D)	0.28	(D)
Machine Shed Rental	6	0.14-2.12	²	0.82	0.68	121
Surface Drainage	6	30.00-265.00	²	124.50	130.71	95
Installing Drainage Tile.....	(D)	(D)	(D)	(D)	720.00	(D)
.....	(D)	(D)	(D)	(D)	(D)	(D)
Land Leveling.....	(D)	(D)	(D)	(D)	74.93	(D)
Rock Picking	8	12.00-140.00	²	69.63	56.75	123
Snow Removal:						
Front End Loader	16	25.00-125.00	100.00	82.00	71.36	115
Tractor Blower	20	25.00-150.00	100.00	82.60	71.33	116

(D) Withheld due to insufficient data. (NA) Not Available. ¹ Includes all necessary farming operations from field preparation through harvesting. ² Data not available due to multiple rates being reported at the highest frequency.

HISTORICAL DATA, STATEWIDE AVERAGES, NORTH DAKOTA, 1992 - 2016

Operation	1992	1995	1998	2001	2004	2007	2010	2013	2016
	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)	(\$/unit)
Swathing Grain:									
Self Propelled	4.22	4.46	5.04	5.47	6.21	7.79	8.78	11.76	10.00
PTO Unit.....	4.03	4.23	4.58	5.23	5.75	7.63	8.12	11.05	(D)
Combining From Swaths:									
Small Grains & Flaxseed ¹	13.13	13.70	13.82	14.72	16.12	20.04	25.44	29.64	29.60
Dry Beans	18.20	18.18	19.06	19.06	21.02	23.11	29.80	38.58	40.00
Straight Combining:									
Small Grains & Flaxseed ¹	13.15	13.74	13.88	15.03	16.27	20.41	25.75	30.25	30.89
Corn	15.23	16.33	16.26	17.33	18.43	22.81	28.04	33.73	35.13
Sunflower	13.54	14.14	14.49	15.29	16.31	20.32	26.28	32.00	33.82
Soybeans	15.70	15.57	16.10	16.72	18.22	21.31	26.03	30.09	30.70
Dry Beans.....	18.39	17.96	19.10	18.29	19.64	23.27	29.28	34.65	35.78
Pulse Crops ²									36.24
Making Corn Silage:									
Chopping Only	17.65	18.51	18.69	20.78	26.75	35.45	46.52	54.46	64.42
Chopping and Hauling.....	21.65	22.62	23.62	26.26	37.55	43.83	60.51	62.88	81.21
Drying:									
Small Grains	0.108	0.111	0.123	0.113	0.145	0.128	0.166	0.179	0.115
Flaxseed	0.110	0.134	0.134	0.109	0.168	0.132	0.174	(D)	(D)
Corn	0.115	0.123	0.146	0.132	0.179	0.141	0.171	0.203	0.132
Sunflower	0.157	0.152	0.171	0.165	0.168	0.187	0.191	0.223	(D)
Soybeans.....	0.093	0.085	0.115	0.125	0.147	0.105	0.118	0.219	0.062
Hauling:									
Wheat	0.090	0.098	0.109	0.116	0.123	0.157	0.174	0.210	0.157
Barley	0.088	0.094	0.101	0.117	0.119	0.154	0.157	0.186	0.239
Oats	0.087	0.094	0.100	0.107	0.107	0.146	0.153	0.138	0.186
Flaxseed	0.091	0.097	0.124	0.107	0.139	0.139	0.162	0.191	0.279
Corn.....	0.087	0.097	0.101	0.114	0.110	0.151	0.173	0.185	0.153
Sunflower.....	0.196	0.189	0.339	0.378	0.413	0.376	0.311	0.604	0.883
Seed Grain Preparation:									
Cleaning Only	0.299	0.321	0.340	0.361	0.380	0.436	0.475	0.556	0.643
Treating Only	0.504	0.552	0.519	0.514	0.542	0.801	0.795	0.822	1.516
Cleaning & Treating	0.784	0.800	0.726	0.846	0.915	1.169	1.097	0.874	1.858
Surface Drainage	58.66	63.49	76.25	84.80	86.03	101.67	127.35	130.71	124.50
Land Leveling	58.31	60.61	63.26	64.31	72.21	87.12	103.00	74.93	(D)
Rock Picking	40.20	39.26	52.29	42.72	42.99	42.24	63.77	56.75	69.63

(D) Withheld to avoid disclosing data for individual operations. ¹ Averages for years 1992-1998 do not include flaxseed. ² Data series began in 2016.

For more information on this and other topics, see www.ag.ndsu.edu

NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit www.ag.ndsu.edu/agcomm/creative-commons.

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to Vice Provost for Title IX/ADA Coordinator, Old Main 201, NDSU Main Campus, 701-231-7708, ndsu.eoaa.ndsu.edu. This publication will be made available in alternative formats for people with disabilities upon request, 701-231-7881.

2M-12-07; 1M-1-11; 500-2-11; 1M-1-14; 1M-1-14; 800-2-17