

2023 Iowa Farm Custom Rate Survey

Many Iowa farmers hire some custom machine work in their farm business or perform custom work for others. Others rent machinery or perform other services. The Iowa Farm Custom Rate Survey was mailed to 316 people by the US Postal Service and 237 people via email in mid-February 2023. The information below is based on 94 responses and 2,621 custom rates provided by Iowa farmers, custom operators, and farm managers. Twenty percent of the respondents perform custom work, 14% hire work done, 59% indicated doing both, 6% indicated doing neither, and 1% did not indicate whether they perform or hire custom work.

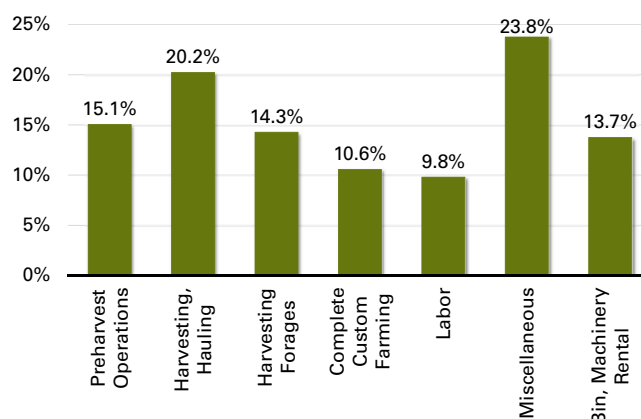
For each type of work, the average rate from the survey, the median, and the range are shown. The average is calculated as the simple average of all responses. The median is the middle number among the ordered responses (from smallest to largest). The reported range excludes the minimum and the maximum values to avoid reporting extreme values.

The reported rates are expected to be charged or paid in 2023, and they include fuel and labor (unless otherwise noted). The average price for diesel fuel (highway-retail including taxes) was assumed to be \$3.39 per gallon (as projected by the US Energy Information Administration in early February 2023). Rental rates for some machinery items are shown in the last section of this report, along with a worksheet for estimating rental rates for other items.

This rate schedule is intended only as a guide. Actual custom rates may vary according to availability of machinery in a given area, timeliness, operator skill, field size and shape, crop conditions, and the performance characteristics of the machine being used.

Note: All rates include fuel, repairs, depreciation, interest, labor, and all other machinery costs for the tractor and implement, unless otherwise noted.

Percentage change by category, 2022 to 2023



Tillage	Average Charge	Median Charge	Range	Number of Responses
Chopping cornstalks, / acre	\$14.80	\$13.50	\$10.00 - \$20.00	19
Moldboard plowing, / acre	19.80	19.75	15.00 - 25.00	10
Chisel plowing, / acre	19.75	19.00	10.00 - 25.00	19
Disk/chiseling, / acre	22.95	21.75	12.75 - 31.00	26
Vertical tillage, / acre	22.05	20.25	12.00 - 35.00	36
Strip tillage, / acre	24.35	23.55	15.00 - 35.00	14
Subsoiling (8 to 15 inches deep), / acre	25.30	25.00	15.00 - 35.00	18
V-ripping (over 15 inches deep), / acre	25.25	25.00	16.00 - 35.00	16
V-ripping with tandem disk, / acre	26.20	25.00	13.50 - 40.00	31
Disking, tandem, / acre	17.55	17.00	10.00 - 25.80	29
Disking, heavy or offset, / acre	21.75	20.00	18.75 - 26.00	13
Harrowing or dragging, / acre	11.25	11.50	7.00 - 15.00	11
Soil finishing, / acre	18.25	18.00	9.50 - 28.00	31
Field cultivating, / acre	17.75	17.00	7.50 - 30.00	45
Rock picking, / acre	19.25	18.50	17.00 - 25.00	8
Cultivating, conventional, / acre	14.05	14.00	13.00 - 16.25	9
Rotary hoeing, / acre	10.60	10.15	10.00 - 11.00	8
Land rolling, / acre	8.65	8.00	5.50 - 15.00	24

Planting, Drilling, and Seeding	Average Charge	Median Charge	Range	Number of Responses
Planting				
- with fertilizer and insecticide attachments, / acre	\$27.10	\$25.95	\$15.00 - \$35.00	28
- without attachments, / acre	24.70	23.00	13.00 - 36.00	36
- with splitters and attachments, / acre	23.80	24.20	12.50 - 34.50	27
- with high-speed planter, / acre	27.90	29.00	14.00 - 45.00	34
- no-till planter, / acre	27.10	25.00	12.75 - 42.50	40
- no-till planter with splitters, / acre	26.80	25.30	13.00 - 35.00	23
Extra charge for seed shut-offs, / acre	2.90	2.35	0.50 - 7.00	40
Extra charge for variable rate seeding, / acre	2.80	2.50	0.50 - 6.00	33
Extra charge for GPS use, if used for analytics, / acre	3.00	2.50	0.50 - 6.00	28
Seed tender, / acre	4.60	3.50	0.25 - 14.00	36
Drilling soybean, / acre	20.20	20.00	13.00 - 27.50	16
Drilling soybean, no-till, / acre	23.05	22.00	13.00 - 32.00	20
Drilling grass seed, / acre	25.25	20.00	10.00 - 33.00	19
Drilling small grain, / acre	17.70	18.50	10.00 - 20.00	14
Seeding grass, broadcast with tractor, / acre	13.75	12.25	10.00 - 15.00	7
Seeding grass, broadcast with ATV, / acre	15.95	14.50	8.00 - 25.00	12
Aerial seeding of cover crop, / acre	14.65	14.00	11.00 - 18.00	8
Drilling cover crop seed, / acre	20.40	20.00	10.00 - 30.00	21
Spraying (materials not included)	Average Charge	Median Charge	Range	Number of Responses
Ground, broadcast, not incorporated, tractor, / acre	\$7.00	\$7.40	\$5.00 - \$8.50	16
Ground, incorporated, tractor, / acre	8.35	8.00	7.95 - 8.50	5
Ground, broadcast, not incorporated, self-propelled, / acre	8.40	8.00	5.00 - 13.00	57
Ground, broadcast, self-propelled tall-crop, / acre	10.35	10.00	6.75 - 16.00	29
Ground, road ditches, / hour	80.45	80.00	30.00 - 120.00	18
Aerial, / acre	10.90	11.00	9.00 - 12.50	18
Fertilizer Application (materials not included)	Average Charge	Median Charge	Range	Number of Responses
Dry bulk - applied, / acre	\$7.20	\$6.75	\$3.50 - \$11.00	29
Liquid - spraying, / acre	7.75	8.00	6.50 - 9.00	13
- side dressing, / acre	12.90	13.00	7.00 - 16.35	19
- high clearance, drop hose, Y spray nozzle, / acre	13.30	13.60	7.50 - 18.00	13
Anhydrous - injecting, with tool bar, / acre	14.70	14.75	7.50 - 26.00	45
- injecting, without tool bar, / acre	12.10	12.50	8.00 - 14.34	19
Spreading lime, / ton	7.50	7.00	5.50 - 11.00	13
Harvesting, Drying, and Hauling Grain	Average Charge	Median Charge	Range	Number of Responses
Corn combining, / acre	\$41.30	\$40.00	\$30.00 - \$64.00	64
- with chopper head, / acre	44.10	43.50	24.25 - 65.00	36
- added charge for corn reel (downed corn), / acre	8.20	7.50	5.00 - 10.00	19
Soybean combining, / acre	39.90	39.00	25.00 - 66.00	53
- with air reel, / acre	39.65	38.50	36.00 - 48.50	10
- with draper head, / acre	42.80	41.25	22.25 - 70.00	49
Small grain combining, / acre	31.75	31.00	30.00 - 33.50	6
Complete harvesting (combine, grain cart, haul to farm storage)				
- Corn, / acre	65.75	60.00	40.00 - 120.00	38
- Soybean, / acre	60.10	55.00	32.00 - 110.00	39
Added charge for GPS mapping, / acre	3.50	3.00	1.00 - 5.25	26

Harvesting, Drying, and Hauling Grain (continued)	Average Charge	Median Charge	Range	Number of Responses
Drying corn (includes fuel, electricity, labor)				
- continuous flow dryer, / point per bushel	\$0.045	\$0.050	\$0.045 - \$0.050	6
- bin dryer, / point per bushel	0.040	0.030	0.030 - 0.040	5
Handling grain by auger, / bushel	0.105	0.080	0.050 - 0.200	24
Hauling grain				
- grain cart, corn, / acre	7.35	7.00	0.50 - 18.00	45
- grain cart, soybean, / acre	6.25	6.00	0.50 - 15.00	44
- to farm storage, wagon, / bushel	0.085	0.075	0.050 - 0.150	22
- farm storage to market, wagon, / bushel	0.095	0.095	0.070 - 0.120	12
- to market, truck, (5 miles, 1-way trip), / bushel	0.135	0.120	0.060 - 0.180	41
- to market, truck, (25 miles, 1-way trip), / bushel	0.210	0.190	0.090 - 0.400	40
- to market, truck, (100 miles, 1-way trip), / bushel	0.355	0.350	0.140 - 0.500	17
Harvesting Forages	Average Charge	Median Charge	Range	Number of Responses
Hay - mowing, / acre	\$13.70	\$13.00	\$10.00 - \$20.00	11
- mowing/conditioning, / acre	16.60	16.00	10.50 - 21.00	24
- raking, / acre	8.35	8.00	5.00 - 15.00	15
- windrowing, / acre	17.80	18.00	16.00 - 20.00	5
- tedding, / acre	7.95	6.50	4.00 - 12.00	9
Hay baling - small square bales, / bale	0.89	0.85	0.60 - 1.00	6
- large round bales without wrap, / bale	13.55	13.75	12.00 - 15.00	10
- large round bales with wrap, / bale	14.70	15.00	12.00 - 18.00	20
Straw or corn stalk baling				
- large round or square bales without wrap, / bale	16.00	15.00	13.00 - 17.00	6
- large round or square bales with wrap, / bale	15.60	15.50	13.00 - 18.25	17
Moving large round bales to storage, / bale	3.45	3.25	2.50 - 5.00	7
Silage - chopping, / hour, / head row	108.70	83.75	77.00 - 156.25	8
- chopping, / ton	7.80	7.50	7.00 - 9.80	9
Filling silage bags, / foot of bag	9.20	9.15	5.90 - 11.10	6
Earlage or snaplage - chopping, / acre	85.50	68.00	65.00 - 100.00	5
Miscellaneous Services (labor, fuel, and equipment included)	Average Charge	Median Charge	Range	Number of Responses
Removing snow (loader), / hour	\$110.65	\$100.00	\$80.00 - \$150.00	16
Removing snow (blade), / hour / foot of blade	11.50	10.00	1.50 - 18.75	8
Removing snow (blower), / hour / foot of blower	18.45	19.45	13.75 - 25.00	11
Spreading liquid manure, injected, / 1,000 gallon	16.65	15.00	10.00 - 20.00	11
Applying liquid manure with drag line, / 1,000 gallon	13.50	13.50	12.00 - 16.00	5
Loading solid manure, / hour	115.00	110.00	100.00 - 125.00	5
Loading, spreading solid manure, / hour	164.00	150.00	140.00 - 200.00	5
Power washing, / hour	54.70	50.00	47.00 - 65.00	10
Scouting crops, / acre	6.20	5.65	5.00 - 8.00	8
GPS grid soil testing, / acre	6.45	7.00	2.50 - 9.50	10
Managing stored grain, / bushel	0.09	0.10	0.05 - 0.10	13
Vacuuming grain, / bushel	0.15	0.13	0.08 - 0.25	24
Livestock hauling with trailer, / loaded mile	3.80	3.70	3.25 - 4.00	5
Bulldozing, / hour, / foot of blade	17.90	19.40	12.50 - 21.43	6
Tiling, tile plow (excluding materials), / foot	1.05	0.95	0.75 - 1.10	8
Backhoeing, / hour	109.95	112.30	85.00 - 125.00	10
Chain sawing, / hour	77.80	75.00	65.00 - 100.00	10
Welding machinery, / hour	80.00	75.00	70.00 - 90.00	10
Mowing CRP or pasture, / acre	25.25	24.05	10.00 - 50.00	26
Controlled burning of grass, CRP, pasture, / acre	37.20	40.00	13.00 - 60.00	10
Mowing fence rows, ditches, / hour	88.15	80.00	50.00 - 140.00	23
Mowing lawns, / hour	57.85	50.00	40.00 - 80.00	21
Chopping brush, / acre	38.20	37.75	25.00 - 50.00	8
Using truck scale, / load weighed	9.05	7.50	2.25 - 15.00	6

Custom Farming (tillage, planting, pest control, harvesting, and hauling to farm, no drying)	Average Charge	Median Charge	Range	Number of Responses
Corn, / acre	\$152.60	\$145.00	\$75.00 - \$275.00	34
Soybean, / acre	139.65	129.00	70.00 - 275.00	34

Farm Labor Wages for Operating Machinery	Average Charge	Median Charge	Range	Number of Responses
Spraying or harvesting, / hour	\$23.85	\$22.00	\$16.00 - \$40.00	48
Other operations, / hour	21.75	20.00	13.50 - 40.00	45

Bin Rental	Average Charge	Median Charge	Range	Number of Responses
Storing grain, bin rental, / bushel / month	\$0.030	\$0.030	\$0.015 - \$0.040	14
Storing grain, bin rental, / bushel / year	0.165	0.150	0.080 - 0.250	17

Machine Rental (operator, tractor, and fuel not included)	Average Charge	Median Charge	Range	Number of Responses
Tractor, / horsepower, / hour	\$0.27	\$0.28	\$0.20 - \$0.33	10
Corn head for combine, / acre	10.70	10.00	8.50 - 14.00	9
Soybean head for combine, / acre	13.55	12.00	12.00 - 16.00	7
Grain cart with auger, corn, / acre	5.75	5.00	2.50 - 7.00	7
Grain cart with auger, soybean, / acre	5.80	5.50	2.00 - 6.50	6
Grain truck (semi), / bushel, / round trip	0.16	0.15	0.12 - 0.18	5
Grain auger, / bushel	0.11	0.10	0.08 - 0.12	5
Grain vacuum, / bushel	0.13	0.12	0.10 - 0.15	8
Skid loader, / hour	73.50	72.50	50.00 - 100.00	10
Anhydrous fertilizer applicator, / acre	4.50	4.50	3.00 - 6.50	6

Estimating a machinery rental rate for items not surveyed

**Example:
Tandem Disk**

The following worksheet can be used to estimate a rental value for equipment items not shown above.

1. Custom charge (includes labor, fuel, tractor)	\$ _____/acre	\$17.55
2. Percent of custom charge that is for interest, insurance, depreciation, and repairs (to exclude fuel and labor) (use 60% for tillage, 65% for planting and harvesting)	× _____%	× 60%
3. Rental value, for tractor and implement (1 × 2)	= \$ _____/acre	= \$10.53
4. Tractor rental value, if tractor is not provided: _____ HP × \$ _____ per hp-hour rental rate (see above) / _____ acres/hour ^{1/} =	= - \$ _____/acre	= - \$2.70
Ex: 150 HP × \$0.27 (per hp-hour rental rate) / 15 acres/hour = \$2.70		
5. Implement rental value, without tractor (3 minus 4)	= \$ _____/acre	= \$7.83/acre

^{1/} Typical values for acres covered per hour can be found in AgDM File A3-24 [Estimating the Field Capacity of Farm Machines](http://www.extension.iastate.edu/agdm/crops/pdf/a3-24.pdf), www.extension.iastate.edu/agdm/crops/pdf/a3-24.pdf.

More on estimating machinery costs and machinery management can be found on the [Ag Decision Maker website](http://www.extension.iastate.edu/agdm/cdmachinery.html), www.extension.iastate.edu/agdm/cdmachinery.html.

The information available in the Iowa Farm Custom Rate Survey is only possible due to the responses provided each year. If you are interested in joining the 2024 Iowa Farm Custom Rate Survey mailing list, send mail or email address to: Alejandro Plastina, Iowa State University, Department of Economics, 478E Heady Hall, 518 Farm House Lane, Ames, IA 50011-1054, 515-294-6160, plastina@iastate.edu.

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