

2020 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 298 people by the US Postal Service and 192 people via email in early February 2020. The information below is based on 106 responses and 3,022 custom rates provided by Iowa farmers, custom operators, and farm managers. Fourteen percent of the respondents perform custom work, 15% hire work done, 53% indicated doing both, and 18% did not indicate whether they perform or hire custom work.

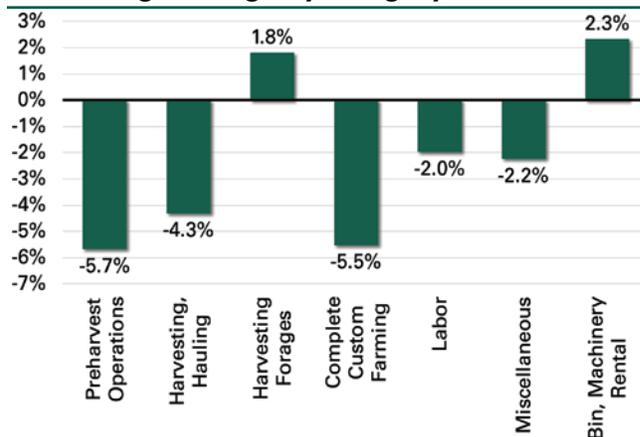
For each type of work, the average rate from the survey, the median, and the range are shown. The average is calculated as the simple average of all responses. The median is the middle number among the ordered responses (from smallest to largest). The reported range excludes the minimum and the maximum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

The reported rates are expected to be charged or paid in 2020, and they include fuel and labor (unless otherwise noted). The average price for diesel fuel was assumed to be \$2.63 per gallon. 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, 2019 to 2020



Tillage	Average Charge	Median Charge	Range	Number of Responses
Chopping cornstalks, / acre	\$12.40	\$12.00	\$8.00 - \$16.00	27
Moldboard plowing, / acre	18.20	18.00	15.00 - 24.00	11
Chisel plowing, / acre	17.95	18.50	14.00 - 22.00	18
Disk/chiseling, / acre	20.15	20.00	14.00 - 28.00	27
Vertical tillage, / acre	18.75	19.00	12.00 - 25.00	36
Strip tillage, / acre	20.30	20.00	16.00 - 25.00	23
- extra charge, dry bulk fertilizer, banded, no materials, / acre	13.30	13.00	5.00 - 23.00	10
- extra charge, liquid fertilizer, knifed, no materials, / acre	12.60	10.00	8.00 - 18.00	5
- extra charge, anhydrous fertilizer, no materials, / acre	6.20	6.00	4.00 - 8.00	8
Subsoiling (8 to 15 inches deep), / acre	21.45	21.00	16.00 - 28.00	24
V-ripping (over 15 inches deep), / acre	22.20	22.50	17.00 - 30.00	16
V-ripping with tandem disk, / acre	22.60	25.00	15.00 - 32.00	31
Disking, tandem, / acre	15.50	16.00	9.00 - 23.00	34
Disking, heavy or offset, / acre	18.75	19.00	14.00 - 24.00	10
Harrowing or dragging, / acre	10.55	10.50	6.00 - 16.00	14
Soil finishing, / acre	15.70	15.30	10.00 - 26.00	31
Field cultivating, / acre	16.10	16.00	8.50 - 26.00	49
Rock picking, / acre	17.10	18.00	12.00 - 20.00	9
Cultivating, conventional, / acre	13.00	14.00	8.50 - 18.00	11
Cultivating, ridge-till, / acre	16.70	15.00	12.00 - 22.00	7
Rotary hoeing, / acre	10.35	10.00	6.00 - 15.00	13
Land rolling, / acre	7.15	7.00	4.00 - 10.00	23

Planting, Drilling, and Seeding	Average Charge	Median Charge	Range	Number of Responses
Planting				
- with fertilizer and insecticide attachments, / acre	\$23.40	\$22.00	\$14.00 - \$36.00	35
- without attachments, / acre	20.70	20.50	13.00 - 30.00	48
- with splitters and attachments, / acre	21.95	21.50	14.00 - 33.00	28
- with high-speed planter, / acre	23.15	22.50	15.00 - 38.00	20
- no-till planter, / acre	23.00	22.00	12.60 - 35.00	43
- no-till planter with splitters, / acre	23.50	22.50	15.00 - 35.00	29
- ridge till planter, / acre	21.35	20.00	19.00 - 25.00	6
Extra charge for seed shut-offs, / acre	2.30	2.50	0.50 - 5.00	35
Extra charge for variable rate seeding, / acre	2.35	2.50	0.50 - 5.00	29
Extra charge for GPS use, if used for analytics, / acre	2.45	2.00	0.50 - 5.00	26
Seed tender, / acre	3.00	3.00	1.00 - 5.00	24
Drilling soybean, / acre	18.85	19.50	14.00 - 24.00	18
Drilling soybean, no-till, / acre	19.75	20.00	14.00 - 27.00	25
Drilling grass seed, / acre	18.70	20.00	12.00 - 25.00	20
Drilling small grain, / acre	17.90	18.00	13.00 - 24.00	15
Seeding grass, broadcast with tractor, / acre	12.10	14.00	8.00 - 15.00	11
Seeding grass, broadcast with ATV, / acre	12.90	12.50	7.00 - 20.00	10
Spraying (materials not included)				
Ground, broadcast, tractor, / acre	\$6.70	\$7.00	\$5.00 - \$8.00	28
Ground, incorporated, tractor, / acre	9.70	9.00	5.00 - 15.00	12
Ground, broadcast, self propelled, / acre	7.90	7.50	4.75 - 14.00	61
Ground, banded, tractor, / acre	8.25	8.00	6.00 - 10.00	8
Ground, road ditches, / hour	69.60	71.00	20.00 - 100.00	24
Aerial, / acre	9.65	10.00	8.00 - 11.00	21
Fertilizer Application (materials not included)				
Dry bulk - applied, / acre	\$5.35	\$6.00	\$2.00 - \$7.50	25
Liquid - spraying, / acre	6.55	7.00	5.00 - 7.50	15
- side dressing, / acre	12.50	12.15	8.00 - 20.00	16
Anhydrous - injecting, with tool bar, / acre	13.10	12.70	8.00 - 24.00	42
- injecting, without tool bar, / acre	11.70	11.55	7.00 - 19.00	26
Spreading lime, / ton	5.85	5.35	3.00 - 10.00	11
Harvesting, Drying, and Hauling Grain				
Corn combining, / acre	\$36.70	\$36.00	\$23.00 - \$54.00	71
- with chopper head, / acre	40.30	42.00	25.00 - 56.00	40
Soybean combining, / acre	35.60	35.55	22.00 - 52.00	60
- with air reel, / acre	34.45	32.00	28.00 - 42.00	13
- with draper head, / acre	38.60	39.50	24.00 - 56.00	50
Small grain combining, / acre	30.40	32.00	25.00 - 36.00	8
Complete harvesting (combine, grain cart, haul to farm storage)				
- Corn, / acre	53.35	52.25	35.00 - 90.00	44
- Soybean, / acre	52.30	52.00	35.00 - 85.00	37
Added charge for GPS mapping, / acre	2.55	2.15	0.50 - 5.00	34
Picking ear corn, / acre	33.70	35.00	30.00 - 36.00	7

Harvesting, Drying, and Hauling Grain (cont.)	Average Charge	Median Charge	Range	Number of Responses
Drying corn (includes fuel, electricity, labor)				
- continuous flow dryer, / point per bushel	\$0.042	\$0.050	\$0.035 - \$0.050	12
- bin dryer, / point per bushel	0.041	0.050	0.020 - 0.050	9
Handling grain by auger, / bushel	0.063	0.050	0.020 - 0.150	24
Hauling grain				
- grain cart, corn, / acre	5.80	6.00	1.00 - 12.00	46
- grain cart, soybean, / acre	5.20	6.00	1.00 - 8.00	40
- to farm storage, wagon, / bushel	0.067	0.050	0.035 - 0.120	19
- farm storage to market, wagon, / bushel	0.088	0.100	0.050 - 0.150	18
- to market, truck, (5 miles, 1-way trip), / bushel	0.100	0.100	0.050 - 0.200	45
- to market, truck, (25 miles, 1-way trip), / bushel	0.163	0.150	0.090 - 0.280	41
- to market, truck, (100 miles, 1-way trip), / bushel	0.300	0.300	0.150 - 0.440	20
Harvesting Forages	Average Charge	Median Charge	Range	Number of Responses
Hay - mowing, / acre	\$13.30	\$13.00	\$8.00 - \$25.00	25
- conditioning, / acre	12.25	12.00	11.40 - 13.00	7
- mowing/conditioning, / acre	15.30	15.00	12.00 - 20.00	24
- raking, / acre	8.15	8.00	5.00 - 12.50	23
- windrowing, / acre	15.50	15.00	10.00 - 21.50	12
- tedding, / acre	8.85	8.50	5.50 - 12.00	11
Hay baling - small square bales, / bale	0.64	0.75	0.40 - 0.80	16
- large square bales, / bale	10.80	11.00	8.50 - 13.00	6
- large round bales without wrap, / bale	12.30	12.50	9.00 - 15.00	12
- large round bales with wrap, / bale	13.35	13.50	11.00 - 16.00	29
Straw or corn stalk baling				
- large round or square bales without wrap, / bale	12.35	13.00	9.00 - 14.00	10
- large round or square bales with wrap, / bale	13.95	14.00	11.00 - 17.00	27
Moving large round bales to storage, / bale	3.15	3.00	2.00 - 5.00	9
Silage - chopping, / ton	7.25	7.00	6.00 - 8.75	11
Filling silage bags, / foot of bag	9.90	10.30	8.00 - 12.00	5
Earlage or snaplage - chopping, / acre	66.45	70.00	55.00 - 82.50	7
Custom Farming (tillage, planting, pest control, harvesting, and hauling to farm, no drying)	Average Charge	Median Charge	Range	Number of Responses
Corn, / acre	\$132.70	\$125.00	\$80.00 - \$245.00	41
Soybean, / acre	119.55	120.00	75.00 - 225.00	41
Small grain, / acre	100.00	100.00	80.00 - 125.00	6
Farm Labor Wages for Operating Machinery	Average Charge	Median Charge	Range	Number of Responses
Spraying or harvesting, / hour	\$18.20	\$18.00	\$13.00 - \$25.00	43
Other operations, / hour	17.25	17.00	12.00 - 30.00	51

Miscellaneous Services (labor, fuel, and equipment included)	Average Charge	Median Charge	Range	Number of Responses
Removing snow (loader), / hour	\$77.25	\$80.00	\$45.00 - \$100.00	22
Removing snow (blower), / hour / foot of blower	17.10	17.85	13.33 - 21.33	11
Tub grinding hay, / hour	251.65	250.00	200.00 - 300.00	6
Spreading liquid manure, injected, / 1,000 gallon	14.15	16.00	10.00 - 17.00	9
Applying liquid manure with drag line, / 1,000 gallon	11.05	10.00	10.00 - 13.00	7
Loading solid manure, / hour	81.65	90.00	50.00 - 110.00	9
Loading, spreading solid manure, / ton	5.50	6.00	3.25 - 7.00	7
Loading, spreading solid manure, / hour	118.35	120.00	100.00 - 120.00	6
Power washing, / hour	56.45	50.00	40.00 - 75.00	7
Building fence, barbed (no materials), / hour	16.20	15.00	15.00 - 19.00	5
Building fence, barbed (no materials), / rod	12.45	12.00	10.00 - 12.50	7
Building fence, woven/barbed (no materials), / rod	15.50	13.00	12.50 - 20.00	5
Scouting crops, / acre	4.50	5.00	3.00 - 6.00	10
Scouting crops with drone, / acre	3.55	4.00	3.00 - 4.00	7
Soil testing, / sample	4.80	4.50	3.00 - 7.00	8
GPS grid soil testing, / acre	6.40	6.00	4.00 - 10.00	13
Managing stored grain, / bushel	0.05	0.05	0.01 - 0.12	12
Vacuuming grain, / bushel	0.11	0.10	0.04 - 0.18	17
Livestock hauling with trailer, / loaded mile	2.95	2.75	2.00 - 4.00	10
Livestock hauling with semi truck, / loaded mile	3.85	4.00	3.40 - 4.00	9
Bulldozing, / hour, / foot of blade	12.75	12.50	11.00 - 15.00	9
Digging post holes, / hole	4.35	4.50	3.00 - 5.00	6
Driving steel fence posts, / post	1.40	1.00	1.00 - 2.00	5
Trenching, / foot	1.85	2.00	1.50 - 2.00	6
Tiling, tiling machine (excluding materials), / foot	1.10	1.15	0.50 - 1.75	10
Tiling, tile plow (excluding materials), / foot	0.74	0.75	0.45 - 1.00	11
Back hoeing, / hour	105.25	100.00	65.00 - 150.00	20
Clearing land, / hour	163.55	160.00	145.00 - 185.00	7
Chain sawing, / hour	66.80	70.00	50.00 - 75.00	9
Welding machinery, / hour	62.50	60.00	50.00 - 80.00	10
Mowing CRP or pasture, / acre	19.15	18.50	10.00 - 30.00	28
Controlled burning of grass, CRP, pasture, / acre	20.75	20.00	5.00 - 40.00	13
Mowing fence rows, ditches, / hour	70.50	75.00	20.00 - 100.00	23
Mowing lawns, / hour	47.50	55.00	18.50 - 75.00	13
Chopping brush, / acre	37.45	45.00	25.00 - 50.00	7
Bin Rental	Average Charge	Median Charge	Range	Number of Responses
Storing grain, bin rental, / bushel / month	\$0.030	\$0.050	\$0.015 - \$0.050	10
Storing grain, bin rental, / bushel / year	0.156	0.150	0.100 - 0.250	21

Machine Rental (operator, tractor, and fuel not included)	Average Charge	Median Charge	Range	Number of Responses
Tractor, / horsepower, / hour	\$0.23	\$0.20	\$0.20 - \$0.28	10
Grain drill, / acre	11.15	12.00	10.00 - 12.00	8
No-till soybean drill, / acre	13.45	14.00	11.00 - 15.00	7
Corn head for combine, / acre	9.80	10.00	8.00 - 10.50	7
Soybean head for combine, / acre	9.30	10.00	8.00 - 10.00	7
Grain cart with auger, corn, / acre	6.50	6.00	5.00 - 8.00	7
Grain cart with auger, soybeans, / acre	5.70	6.00	5.00 - 7.00	7
Grain truck (semi), / bushel, / round trip	0.10	0.10	0.05 - 0.12	8
Grain auger, / bushel	0.06	0.05	0.02 - 0.10	9
Grain vacuum, / bushel	0.08	0.10	0.04 - 0.12	11
Liquid manure spreader, / hour	76.00	75.00	65.00 - 90.00	5
Solid manure spreader, / hour	60.70	55.00	50.00 - 80.00	7
Skid loader, / hour	65.85	65.00	40.00 - 100.00	12
Dry bulk fertilizer applicator, / acre	4.95	5.00	3.00 - 6.00	7
Liquid fertilizer applicator, / acre	6.50	7.50	5.00 - 8.00	6
Anhydrous fertilizer applicator, / acre	6.50	6.00	5.00 - 10.00	9
Power washer, / hour	40.00	40.00	35.00 - 40.00	5
Generator, / hour	50.00	50.00	40.00 - 55.00	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	\$15.50
2. Percent of custom charge that is for interest, insurance, depreciation, and repairs (excludes fuel and labor) (use 60% for tillage, 65% for planting and harvesting)	x _____%	x 60%
3. Rental value, including tractor (1 x 2)	= \$ _____/acre	= \$9.30
4. Tractor rental value, if tractor is not provided: _____HP x \$ _____ per hp-hour rental rate (see above) / _____ acres/hour ^{1/} =	- \$ _____/acre	- \$2.30
Ex: 150 HP x \$.23 (per hp-hour rental rate) / 15 acres/hour = \$2.30		
5. Implement rental value, without tractor (3 minus 4)	= \$ _____/acre	= \$7.00/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 Custom Rate Survey is only possible due to the responses provided each year. If you are interested in joining the **2021 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.

Prepared by
Alejandro Plastina, extension economist
plastina@iastate.edu
Ann Johanns, extension program specialist
Olivia Massman, student assistant

Additional machinery management
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