

2021 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 361 people by the US Postal Service and 198 people via email in early February 2021. The information below is based on 118 responses and 3,785 custom rates provided by Iowa farmers, custom operators, and farm managers. Fourteen percent of the respondents perform custom work, 16% hire work done, 45% indicated doing both, and 25% did not indicate whether they perform or hire custom work.

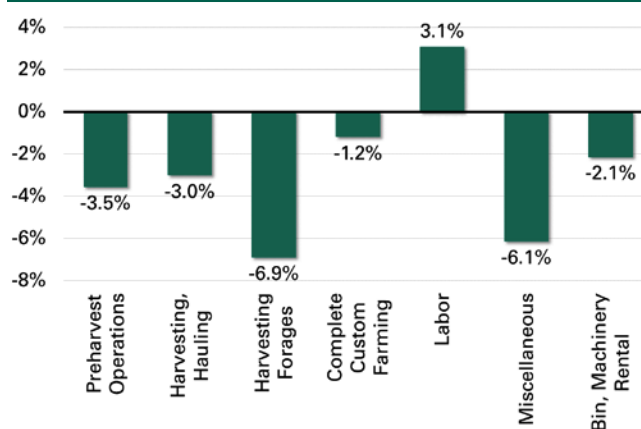
For each type of work, the average rate from the survey, the median, and the range are shown. The average is calculated as the simple average of all responses. The median is the middle number among the ordered responses (from smallest to largest). The reported range excludes the minimum and the maximum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

The reported rates are expected to be charged or paid in 2021, and they include fuel and labor (unless otherwise noted). The average price for diesel fuel was assumed to be \$2.71 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, 2020 to 2021



Tillage	Average Charge	Median Charge	Range	Number of Responses
Chopping cornstalks, / acre	\$11.90	\$12.00	\$8.00 - \$16.00	32
Moldboard plowing, / acre	18.40	19.40	14.00 - 22.00	20
Chisel plowing, / acre	17.50	18.00	10.00 - 22.50	31
Disk/chiseling, / acre	20.00	20.00	14.00 - 28.00	38
Vertical tillage, / acre	18.45	18.75	12.00 - 25.00	42
Strip tillage, / acre	20.15	20.00	16.00 - 25.00	18
- extra charge, dry bulk fertilizer, banded, no materials, / acre	3.50	4.50	1.00 - 5.00	8
- extra charge, liquid fertilizer, knifed, no materials, / acre	4.25	3.75	1.00 - 7.00	6
- extra charge, anhydrous fertilizer, no materials, / acre	2.60	2.50	1.50 - 3.00	6
Subsoiling (8 to 15 inches deep), / acre	21.00	21.50	15.00 - 25.00	24
V-ripping (over 15 inches deep), / acre	21.25	22.00	15.00 - 29.00	21
V-ripping with tandem disk, / acre	21.95	23.00	14.50 - 28.50	40
Disking, tandem, / acre	15.00	15.25	9.00 - 20.00	46
Disking, heavy or offset, / acre	17.65	19.00	13.00 - 22.00	17
Harrowing or dragging, / acre	9.75	10.00	6.00 - 14.00	17
Soil finishing, / acre	14.95	15.85	9.50 - 20.00	42
Field cultivating, / acre	15.05	15.50	8.00 - 22.00	67
Rock picking, / acre	16.40	17.50	10.00 - 25.00	18
Cultivating, conventional, / acre	12.45	14.00	8.00 - 15.00	14
Cultivating, ridge-till, / acre	15.00	14.00	12.00 - 18.00	6
Rotary hoeing, / acre	9.90	10.00	6.00 - 15.00	24
Land rolling, / acre	6.80	6.50	4.00 - 10.50	39

Planting, Drilling, and Seeding	Average Charge	Median Charge	Range	Number of Responses
Planting				
- with fertilizer and insecticide attachments, / acre	\$22.90	\$23.80	\$14.00 - \$35.00	39
- without attachments, / acre	20.60	21.00	12.00 - 29.50	58
- with splitters and attachments, / acre	21.20	21.00	13.50 - 30.00	33
- with high-speed planter, / acre	23.25	24.00	15.00 - 30.00	27
- no-till planter, / acre	21.90	22.50	11.00 - 32.00	59
- no-till planter with splitters, / acre	22.70	22.50	14.00 - 32.00	34
- ridge till planter, / acre	24.55	24.00	18.00 - 30.00	9
Extra charge for seed shut-offs, / acre	2.10	2.00	0.50 - 5.00	55
Extra charge for variable rate seeding, / acre	2.35	2.20	0.50 - 5.00	38
Extra charge for GPS use, if used for analytics, / acre	2.20	2.00	0.50 - 4.00	30
Seed tender, / acre	2.55	2.75	0.50 - 5.00	37
Drilling soybean, / acre	18.60	18.60	13.00 - 24.00	20
Drilling soybean, no-till, / acre	19.65	20.00	13.00 - 27.00	29
Drilling grass seed, / acre	17.95	18.50	10.00 - 25.00	31
Drilling small grain, / acre	17.15	18.00	12.00 - 22.00	29
Seeding grass, broadcast with tractor, / acre	11.35	12.00	7.25 - 15.00	20
Seeding grass, broadcast with ATV, / acre	12.50	12.90	7.00 - 20.00	17
Aerial seeding of cover crop, / acre	12.40	11.25	8.00 - 18.00	24
Drilling cover crop seed, / acre	16.15	16.00	9.00 - 23.00	28
Spraying (materials not included)	Average Charge	Median Charge	Range	Number of Responses
Ground, broadcast, tractor, / acre	\$6.55	\$6.50	\$5.00 - \$10.00	39
Ground, incorporated, tractor, / acre	9.15	8.00	5.00 - 14.00	15
Ground, broadcast, self-propelled, / acre	7.50	7.50	4.50 - 12.00	86
Ground, banded, tractor, / acre	7.60	7.00	5.00 - 10.00	10
Ground, road ditches, / hour	60.15	70.00	20.00 - 100.00	34
Aerial, / acre	9.75	9.50	8.00 - 12.00	35
Fertilizer Application (materials not included)	Average Charge	Median Charge	Range	Number of Responses
Dry bulk - applied, / acre	\$5.55	\$6.00	\$3.00 - \$8.00	49
Liquid - spraying, / acre	6.70	7.00	5.00 - 8.00	23
- side dressing, / acre	11.80	12.00	6.50 - 16.00	28
Anhydrous - injecting, with tool bar, / acre	12.25	12.75	7.50 - 16.00	57
- injecting, without tool bar, / acre	10.80	10.75	7.00 - 15.00	38
Spreading lime, / ton	6.00	5.43	3.00 - 10.00	28
Harvesting, Drying, and Hauling Grain	Average Charge	Median Charge	Range	Number of Responses
Corn combining, / acre	\$35.10	\$36.00	\$22.00 - \$45.00	78
- with chopper head, / acre	38.90	40.00	24.00 - 58.00	52
- added charge for corn reel (downed corn), / acre	5.85	5.00	1.00 - 10.00	19
Soybean combining, / acre	34.20	35.00	22.00 - 46.00	64
- with air reel, / acre	34.45	35.00	25.00 - 44.00	19
- with draper head, / acre	37.85	39.00	23.00 - 54.00	60
Small grain combining, / acre	30.45	31.00	25.00 - 36.00	13
Complete harvesting (combine, grain cart, haul to farm storage)				
- Corn, / acre	52.30	52.50	32.00 - 85.00	62
- Soybean, / acre	49.90	50.50	30.00 - 80.00	58
Added charge for GPS mapping, / acre	2.50	2.50	0.50 - 5.00	45

Harvesting, Drying, and Hauling Grain (continued)	Average Charge	Median Charge	Range	Number of Responses
Picking ear corn (seed corn), / acre	34.80	36.00	30.00 - 38.00	5
Picking ear corn (farm use), / acre	31.90	34.00	25.00 - 35.00	11
Drying corn (includes fuel, electricity, labor)				
- continuous flow dryer, / point per bushel	\$0.042	\$0.040	\$0.030 - \$0.050	15
- bin dryer, / point per bushel	0.035	0.040	0.020 - 0.050	11
Handling grain by auger, / bushel	0.055	0.060	0.010 - 0.100	38
Hauling grain				
- grain cart, corn, / acre	5.80	6.00	1.00 - 12.00	58
- grain cart, soybean, / acre	5.05	5.40	1.00 - 8.00	52
- to farm storage, wagon, / bushel	0.068	0.060	0.035 - 0.100	28
- farm storage to market, wagon, / bushel	0.086	0.090	0.035 - 0.120	20
- to market, truck, (5 miles, 1-way trip), / bushel	0.101	0.100	0.050 - 0.180	60
- to market, truck, (25 miles, 1-way trip), / bushel	0.156	0.160	0.050 - 0.250	61
- to market, truck, (100 miles, 1-way trip), / bushel	0.298	0.320	0.120 - 0.450	35

Harvesting Forages	Average Charge	Median Charge	Range	Number of Responses
Hay - mowing, / acre	\$11.35	\$10.00	\$8.00 - \$15.00	19
- conditioning, / acre	12.00	12.00	10.00 - 13.00	10
- mowing/conditioning, / acre	15.15	15.00	12.00 - 20.00	29
- raking, / acre	7.60	8.00	5.00 - 10.00	28
- windrowing, / acre	14.50	15.00	9.00 - 18.00	14
- tedding, / acre	6.70	6.00	5.00 - 8.00	13
Swathing hay or small grain, / acre	13.65	13.50	12.00 - 16.00	6
Hay baling - small square bales, / bale	0.59	0.60	0.40 - 0.80	16
- large square bales, / bale	9.35	8.50	8.00 - 11.00	6
- large round bales without wrap, / bale	10.80	10.50	8.00 - 14.00	14
- large round bales with wrap, / bale	13.20	13.00	11.00 - 16.00	36
Straw or corn stalk baling				
- large round or square bales without wrap, / bale	12.45	12.00	9.00 - 18.00	14
- large round or square bales with wrap, / bale	13.95	13.75	11.00 - 20.00	32
Moving large round bales to storage, / bale	2.95	2.75	2.00 - 5.00	14
Moving large square bales to storage, / bale	2.30	2.00	2.00 - 3.00	9
Haul round bales by truck or trailer, / bale, / loaded mile	0.18	0.24	0.07 - 0.25	7
Silage - chopping, / hour, / head row	79.70	64.06	50.00 - 112.50	6
- chopping, / ton	7.10	6.78	6.00 - 8.00	6
Filling silage bags, / foot of bag	8.80	8.50	8.00 - 9.50	5
Earlage or snaplage - chopping, / acre	64.75	62.50	55.00 - 75.00	8

Custom Farming (tillage, planting, pest control, harvesting, and hauling to farm, no drying)	Average Charge	Median Charge	Range	Number of Responses
Corn, / acre	\$127.25	\$130.00	\$75.00 - \$240.00	53
Soybean, / acre	115.60	115.00	70.00 - 220.00	51
Small grain, / acre	103.85	110.00	80.00 - 122.00	7

Farm Labor Wages for Operating Machinery	Average Charge	Median Charge	Range	Number of Responses
Spraying or harvesting, / hour	\$18.95	\$18.40	\$12.00 - \$35.00	65
Other operations, / hour	17.60	17.00	12.00 - 35.00	74

Miscellaneous Services (labor, fuel, and equipment included)	Average Charge	Median Charge	Range	Number of Responses
Removing snow (loader), / hour	\$75.30	\$79.00	\$45.00 - \$100.00	28
Removing snow (blade), / hour / foot of blade	7.70	6.67	5.63 - 10.42	9
Removing snow (blower), / hour / foot of blower	15.45	17.78	7.50 - 20.00	13
Tub grinding hay, / hour	255.00	250.00	150.00 - 400.00	9
Tub grinding hay, / ton	11.90	12.25	10.00 - 14.50	4
Spreading liquid manure, injected, / 1,000 gallon	13.35	14.25	10.00 - 17.00	18
Applying liquid manure with drag line, / 1,000 gallon	11.65	10.00	10.00 - 15.00	11
Loading solid manure, / hour	78.00	87.50	50.00 - 100.00	10
Loading, spreading solid manure, / ton	4.95	5.00	3.25 - 7.00	9
Loading, spreading solid manure, / hour	130.00	125.00	75.00 - 190.00	10
Power washing, / hour	47.55	50.00	40.00 - 58.00	13
Building fence, barbed (no materials), / hour	16.75	15.00	15.00 - 20.00	10
Building fence, barbed (no materials), / rod	10.80	10.00	10.00 - 12.00	7
Building fence, woven/barbed (no materials), / hour	16.15	15.00	15.00 - 20.00	6
Building fence, woven/barbed (no materials), / rod	11.60	10.00	10.00 - 13.00	5
Scouting crops, / acre	3.70	4.00	2.00 - 5.00	13
Scouting crops with drone, / acre	3.30	3.25	2.00 - 4.00	10
Scouting crops with fixed wings aircraft, / acre	2.40	2.50	2.00 - 3.00	4
Soil testing, / sample	4.15	4.00	3.00 - 5.00	8
GPS grid soil testing, / acre	6.75	6.38	4.00 - 11.00	16
Managing stored grain, / bushel	0.05	0.05	0.01 - 0.10	14
Vacuuming grain, / bushel	0.10	0.10	0.03 - 0.18	26
Livestock hauling with trailer, / loaded mile	2.55	2.50	2.00 - 3.50	9
Livestock hauling with semi truck, / loaded mile	3.55	3.50	3.25 - 4.25	9
Bulldozing, / hour, / foot of blade	11.85	12.50	6.67 - 15.83	17
Digging post holes, / hole	3.55	3.00	3.00 - 4.00	7
Driving steel fence posts, / post	1.00	1.00	1.00 - 1.00	4
Trenching, / foot	1.60	1.88	0.85 - 2.00	10
Tiling, tiling machine (excluding materials), / foot	1.00	1.00	0.50 - 2.00	18
Tiling, tile plow (excluding materials), / foot	0.79	0.70	0.45 - 1.25	16
Backhoeing, / hour	94.45	80.00	60.00 - 160.00	19
Clearing land, / hour	144.60	150.00	125.00 - 160.00	12
Chain sawing, / hour	64.40	65.00	40.00 - 100.00	17
Welding machinery, / hour	65.00	70.00	40.00 - 90.00	17
Mowing CRP or pasture, / acre	19.20	20.00	10.00 - 28.00	37
Controlled burning of grass, CRP, pasture, / acre	20.65	22.50	5.00 - 40.00	16
Mowing fence rows, ditches, / hour	66.35	72.50	20.00 - 100.00	26
Mowing lawns, / hour	45.50	49.00	18.50 - 65.00	20
Chopping brush, / acre	33.20	30.00	25.00 - 45.00	11
Using truck scale, / load weighed	2.15	2.25	1.00 - 3.00	6
Bin Rental	Average Charge	Median Charge	Range	Number of Responses
Storing grain, bin rental, / bushel / month	\$0.031	\$0.025	\$0.010 - \$0.100	26
Storing grain, bin rental, / bushel / year	0.148	0.120	0.100 - 0.250	40

Machine Rental (operator, tractor, and fuel not included)	Average Charge	Median Charge	Range	Number of Responses
Tractor, / horsepower, / hour	\$0.24	\$0.25	\$0.16 - \$0.30	17
Grain drill, / acre	10.30	10.00	8.00 - 12.00	12
No-till soybean drill, / acre	13.35	14.00	11.00 - 15.00	10
Corn head for combine, / acre	9.80	10.00	8.00 - 12.00	11
Soybean head for combine, / acre	10.35	10.00	8.00 - 12.00	10
Grain cart with auger, corn, / acre	5.85	5.50	2.50 - 8.00	12
Grain cart with auger, soybean, / acre	5.80	5.50	4.00 - 7.50	10
Grain truck (semi), / bushel, / round trip	0.08	0.09	0.05 - 0.12	4
Grain auger, / bushel	0.06	0.07	0.04 - 0.08	6
Grain vacuum, / bushel	0.11	0.10	0.05 - 0.15	13
Solid manure spreader, / hour	52.50	55.00	50.00 - 60.00	4
Skid loader, / hour	58.75	60.00	40.00 - 75.00	12
Dry bulk fertilizer applicator, / acre	5.25	5.50	4.50 - 6.00	8
Liquid fertilizer applicator, / acre	6.65	6.50	5.00 - 7.00	6
Anhydrous fertilizer applicator, / acre	6.00	5.50	2.00 - 10.00	10
Power washer, / hour	37.50	37.50	35.00 - 40.00	4
Generator, / hour	45.70	50.00	40.00 - 50.00	7

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	\$15.00
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)	x _____%	x 60%
3. Rental value, for tractor and implement (1 x 2)	= \$ _____/acre	= \$9.00
4. Tractor rental value, if tractor is not provided: _____ HP x \$ _____ per hp-hour rental rate (see above) / _____ acres/hour ^{1/} =	- \$ _____/acre	- \$2.40
Ex: 150 HP x \$.24 (per hp-hour rental rate) / 15 acres/hour = \$2.40		
5. Implement rental value, without tractor (3 minus 4)	= \$ _____/acre	= \$6.60/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 **2022 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
Ayah Gleisner, Avery Qualman,
student assistants

This institution is an equal opportunity provider. For the full non-discrimination statement or accommodation inquiries, go to www.extension.iastate.edu/diversity/ext.

Additional machinery management publications are available at: www.extension.iastate.edu/agdmstore.extension.iastate.edu/