

# 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.

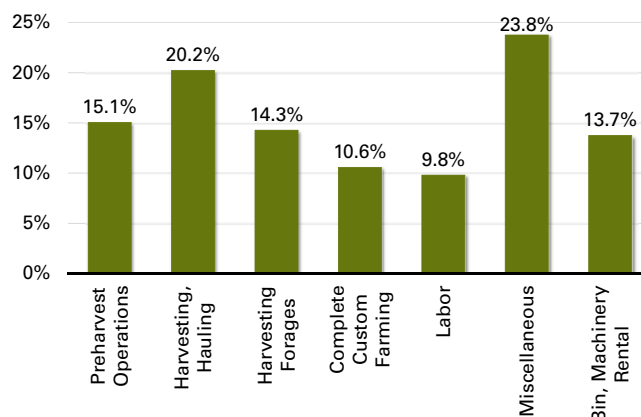
For each type of work, the average rate from the survey, the median, and the range are shown. The average is calculated as the simple average of all responses. The median is the middle number among the ordered responses (from smallest to largest). The reported range excludes the minimum and the maximum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

| <b>Planting, Drilling, and Seeding</b>                          | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
|---|-----------------------|----------------------|-------------------|----------------------------|
| 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                         |
| <b>Spraying (materials not included)</b>                        | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
| 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                         |
| <b>Fertilizer Application (materials not included)</b>          | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
| 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                         |
| <b>Harvesting, Drying, and Hauling Grain</b>                    | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
| 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                         |

| <b>Harvesting, Drying, and Hauling Grain (continued)</b>            | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>       | <b>Number of Responses</b> |
|---|-----------------------|----------------------|--------------------|----------------------------|
| 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                         |
| <b>Harvesting Forages</b>   | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>       | <b>Number of Responses</b> |
| 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                          |
| <b>Miscellaneous Services (labor, fuel, and equipment included)</b> | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>       | <b>Number of Responses</b> |
| 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                          |

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

| <b>Farm Labor Wages for Operating Machinery</b> | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
|---|-----------------------|----------------------|-------------------|----------------------------|
| 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                         |

| <b>Bin Rental</b>                           | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>      | <b>Number of Responses</b> |
|---|-----------------------|----------------------|-------------------|----------------------------|
| 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                         |

| <b>Machine Rental (operator, tractor, and fuel not included)</b> | <b>Average Charge</b> | <b>Median Charge</b> | <b>Range</b>    | <b>Number of Responses</b> |
|--|-----------------------|----------------------|-----------------|----------------------------|
| 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                          |

| <b>Estimating a machinery rental rate for items not surveyed</b>  | <b>Example: Tandem Disk</b> |               |
|---|-----------------------------|---------------|
| 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 <sup>1/</sup> =                           | - \$ _____/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 |

<sup>1/</sup> 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](http://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](http://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](mailto:plastina@iastate.edu).

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