

Historical Iowa Farm Custom Rate Survey Averages

Tillage	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Chopping cornstalks, / acre	\$14.80	\$12.75	\$11.90	\$12.40	\$12.40	\$11.25	\$11.90	\$11.85	\$11.90	\$11.55
Moldboard plowing, / acre	19.80	18.50	18.40	18.20	20.20	18.45	19.65	18.80	18.50	17.15
Chisel plowing, / acre	19.75	18.00	17.50	17.95	18.35	17.60	17.45	16.45	16.90	16.15
Disk/chiseling, / acre	22.95	20.45	20.00	20.15	19.70	18.50	19.15	17.80	17.95	17.25
Vertical tillage, / acre	22.05	19.30	18.45	18.75	18.55	17.30	17.30	16.05	16.90	16.30
Strip tillage, / acre	24.35	21.65	20.15	20.30	21.55	19.20				
Subsoiling (8 to 15 inches deep), / acre	25.30	22.10	21.00	21.45	22.85	20.30	21.75	20.35	20.10	19.70
V-ripping (over 15 inches deep), / acre	25.25	22.20	21.25	22.20	23.45	22.10	22.60	20.15	21.70	20.40
V-ripping with tandem disk, / acre	26.20	23.45	21.95	22.60	24.60	23.05	23.95	23.15	23.50	23.20
Disking, tandem, / acre	17.55	16.20	15.00	15.50	15.40	14.70	15.05	14.25	14.65	14.20
Disking, heavy or offset, / acre	21.75	18.60	17.65	18.75	20.10	18.35	20.40	18.45	19.00	19.15
Harrowing or dragging, / acre	11.25	10.95	9.75	10.55	11.50	9.65	10.65	8.95	9.35	9.30
Soil finishing, / acre	18.25	15.65	14.95	15.70	15.80	14.90	14.80	14.00	14.75	14.60
Field cultivating, / acre	17.75	15.90	15.05	16.10	16.00	14.70	15.15	14.05	14.05	13.80
Rock picking, / acre	19.25	16.75	16.40	17.10	18.10	15.65	16.95	14.90	14.95	14.30
Cultivating, conventional, / acre	14.05	12.55	12.45	13.00	14.95	13.50	15.00	13.50	14.65	14.20
Cultivating, ridge-till, / acre		14.25	15.00	16.70	19.25	17.55	18.65	16.45	16.85	16.45
Rotary hoeing, / acre	10.60	9.65	9.90	10.35	12.05	10.60	11.00	10.65	11.00	10.15
Land rolling, / acre	8.65	7.20	6.80	7.15	8.00	7.50	7.70	7.45	7.90	7.80
Planting, Drilling, and Seeding	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Planting										
- with fertilizer and insecticide attachments, / acre	\$27.10	\$23.40	\$22.90	\$23.40	\$21.80	\$21.55	\$20.50	\$19.90	\$19.90	\$19.25
- without attachments, / acre	24.70	21.00	20.60	20.70	20.40	19.15	19.40	18.55	18.50	17.85
- with splitters and attachments, / acre	23.80	21.55	21.20	21.95	22.30	21.25	20.85	20.70	21.30	20.20
- with high-speed planter, / acre	27.90	25.45	23.25	23.15	22.45	20.20				
- no-till planter, / acre	27.10	23.25	21.90	23.00	22.90	21.65	21.00	20.15	20.50	19.35
- no-till planter with splitters, / acre	26.80	23.75	22.70	23.50	23.85	22.00	21.35	20.85	21.55	21.10
- ridge till planter, / acre		23.70	24.55	21.35	23.40	22.55	25.25	22.40	23.25	22.15
Extra charge for seed shut-offs, / acre	2.90	2.25	2.10	2.30	2.45	2.35	2.35	2.30	2.70	2.55
Extra charge for variable rate seeding, / acre	2.80	2.45	2.35	2.35	2.65	2.65	2.45	2.70	3.15	2.80
Extra charge for GPS use, if used for analytics, / acre	3.00	2.45	2.20	2.45	2.85	2.35	2.40			
Seed tender, / acre	4.60	2.85	2.55	3.00	3.30	2.85	3.75	3.15	3.75	3.40
Drilling soybean, / acre	20.20	19.05	18.60	18.85	19.10	17.40	18.50	16.40	16.75	16.40
Drilling soybean, no-till, / acre	23.05	21.35	19.65	19.75	20.60	19.30	19.10	18.40	19.20	18.50
Drilling grass seed, / acre	25.25	18.90	17.95	18.70	19.10	17.95	17.90	16.40	16.35	16.05
Drilling small grain, / acre	17.70	17.70	17.15	17.90	18.35	16.90	17.45	16.10	15.90	15.30
Seeding grass, broadcast with tractor, / acre	13.75	11.20	11.35	12.10	13.55	12.50	13.40	12.25	12.30	12.45
Seeding grass, broadcast with ATV, / acre	15.95	11.75	12.50	12.90	15.80	13.45	16.50	14.70	14.55	14.05
Spraying (materials not included)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Ground, broadcast, tractor, / acre	\$7.00	\$6.75	\$6.55	\$6.70	\$7.25	\$6.60	\$7.00	\$6.80	\$7.40	\$6.90
Ground, incorporated, tractor, / acre	8.35	7.95	9.15	9.70	12.85	11.00	11.55	11.80	11.15	12.35
Ground, broadcast, self-propelled, / acre	8.40	7.80	7.50	7.90	7.65	7.45	7.65	7.35	7.70	7.55
Ground, banded, tractor, / acre		6.80	7.60	8.25	10.80	10.10	11.20	10.95	11.05	11.10
Ground, road ditches, / hour	80.45	65.40	60.15	69.60	69.00	63.60	66.85	63.70	63.80	67.90
Aerial, / acre	10.90	9.70	9.75	9.65	10.75	10.25	11.00	10.60	10.60	10.10

A [Decision Tool](#) with additional data by year and operation is available from the Ag Decision Maker website, www.extension.iastate.edu/agdm/crops/xls/a3-12historiccustomrates.xlsx.

Source: [Iowa Farm Custom Rate Survey](#), www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

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Fertilizer Application (materials not included)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Dry bulk - applied, / acre	\$7.20	\$6.15	\$5.55	\$5.35	\$5.80	\$5.45	\$5.40	\$4.90	\$5.40	\$5.00
Liquid - spraying, / acre	7.75	6.80	6.70	6.55	7.30	6.90	7.25	6.65	7.35	7.40
- side dressing, / acre	12.90	11.35	11.80	12.50	11.35	10.45	11.50	11.15	12.25	12.90
Anhydrous - injecting, with tool bar, / acre	14.70	13.40	12.25	13.10	12.50	12.60	12.80	12.25	12.80	12.70
- injecting, without tool bar, / acre	12.10	11.95	10.80	11.70	11.40	11.50	12.05	11.10	11.70	11.35
Spreading lime, / ton	7.50	6.25	6.00	5.85	6.25	6.45	6.50	6.35	6.25	7.05
Harvesting, Drying, and Hauling Grain	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Corn combining, / acre	\$41.30	\$36.75	\$35.10	\$36.70	\$35.95	\$34.80	\$35.05	\$34.75	\$35.35	\$34.15
- with chopper head, / acre	44.10	40.35	38.90	40.30	41.35	38.80	41.35	40.10	41.05	40.05
Soybean combining, per acre	39.90	36.05	34.20	35.60	35.10	34.00	34.70	34.05	34.75	34.15
- with air reel, / acre	39.65	34.10	34.45	34.45	37.80	35.35	37.55	35.55	37.05	36.85
- with draper head, / acre	42.80	38.75	37.85	38.60	38.50	38.65	40.60	38.10	38.35	
Small grain combining, / acre	31.75	31.15	30.45	30.40	31.90	32.30	34.05	31.55	30.00	29.75
Complete harvesting(combine, grain cart, haul to farm storage)										
- corn, / acre	65.75	55.60	52.30	53.35	54.10	50.95	53.70	49.70	50.35	47.65
- soybeans, / acre	60.10	52.20	49.90	52.30	51.55	48.90	50.55	46.40	47.75	45.20
Added charge for GPS mapping, / acre	3.50	2.70	2.50	2.55	2.85	2.35	2.80	2.45	2.90	2.70
Picking ear corn, per acre (seed corn)			34.80		35.80	36.00	38.60	36.85	36.55	37.15
Picking ear corn, per acre (farm use or all)		31.80	31.90	33.70	32.15	30.00	32.05	29.95	29.50	27.30
Drying corn (includes fuel, electricity, labor)										
- continuous flow dryer, / point per bushel	0.045	0.040	0.042	0.042	0.046	0.041	0.049	0.047	0.055	0.050
- bin dryer, / point per bushel	0.040	0.030	0.035	0.041	0.052	0.045	0.059	0.054	0.063	0.063
Handling grain by auger, / bushel	0.105	0.060	0.055	0.063	0.064	0.056	0.067	0.061	0.061	0.067
Hauling grain										
- grain cart, corn, / acre	7.35	6.60	5.80	5.80	6.55	6.20	6.70	6.45	6.95	6.95
- grain cart, soybean, / acre	6.25	5.40	5.05	5.20	5.75	5.35	5.80	5.70	6.05	5.75
- to farm storage, wagon, / bushel	0.085	0.065	0.068	0.067	0.068	0.064	0.078	0.071	0.077	0.076
- farm storage to market, wagon, / bushel	0.095	0.085	0.086	0.088	0.086	0.076	0.091	0.087	0.087	0.094
- to market, truck, (5 miles, 1-way trip), / bushel	0.135	0.110	0.101	0.100	0.102	0.093	0.101	0.099	0.108	0.110
- to market, truck, (25 miles, 1-way trip), / bushel	0.210	0.160	0.156	0.163	0.163	0.154	0.170	0.163	0.180	0.175
- to market, truck, (100 miles, 1-way trip), / bushel	0.355	0.315	0.298	0.300	0.317	0.313	0.354	0.325	0.371	0.361
Harvesting Forages	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Hay - mowing, / acre	\$13.70	\$13.35	\$11.35	\$13.30	\$13.70	\$11.95	\$14.00	\$12.30	\$12.05	\$11.85
- conditioning, / acre		13.65	12.00	12.25	12.60	11.40	11.70	11.70	11.60	11.25
- mowing/conditioning, / acre	16.60	16.20	15.15	15.30	15.30	14.65	14.15	14.00	14.25	13.60
- raking, / acre	8.35	7.65	7.60	8.15	7.40	7.15	7.25	6.55	6.50	6.35
- windrowing, / acre	17.80	14.30	14.50	15.50	15.40	14.15	15.45	14.20	13.40	12.90
- tedding, / acre	7.95	6.80	6.70	8.85	7.85	8.70	8.25	7.20	7.65	6.80
Hay baling										
- small square bales, / bale	0.89	0.83	0.59	0.64	0.68	0.67	0.69	0.66	0.72	0.65
- large square bales, / bale		12.90	9.35	10.80	10.95	10.15	11.15	9.75	10.75	10.50
- large round bales without wrap, / bale	13.55	13.15	10.80	12.30	12.35	11.30	11.80	10.70	11.25	11.05
- large round bales with wrap, / bale	14.70	14.05	13.20	13.35	13.05	12.65	12.90	12.35	12.85	12.60
Straw or corn stalk baling										
- large round or square bales without wrap, / bale	16.00	12.55	12.45	12.35	12.35	11.2	12.25	12.05	12.35	12.25
- large round or square bales with wrap, / bale	15.60	14.75	13.95	13.95	13.6	13.1	13.8	13.7	14.8	13.45
Moving large round bales to storage, / bale	3.45	3.05	2.95	3.15	2.65	2.80	3.30	2.85	3.00	3.30
Silage - chopping, / ton	7.80	7.00	7.10	7.25	6.75	7.05	7.35	7.10	7.80	6.30
Filling silage bags, / foot of bag	9.20	9.25	8.80	9.90	11.65	11.00	11.90	11.00	12.25	11.30
Earlage or snaplage - chopping, / acre	85.50	63.25	64.75	66.45	65.15	60.90	60.85	54.50	54.05	49.40
Custom Farming (tillage, planting, pest control, harvesting, and hauling to farm, no drying)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Corn, / acre	\$152.60	\$138.75	\$127.25	\$132.70	\$132.25	\$128.80	\$131.50	\$129.95	\$136.50	\$136.10
Soybean, / acre	139.65	125.65	115.60	119.55	121.20	117.10	117.25	116.15	125.35	121.00
Small grain, / acre		90.00	103.85	100.00	118.35	96.90	101.95	93.55	93.65	91.25

Farm Labor Wages for Operating Machinery	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Spraying or harvesting, / hour	\$23.85	\$21.90	\$18.95	\$18.20	\$19.00	\$17.55	\$17.15	\$16.60	\$16.40	\$15.50
Other operations, / hour	21.75	19.65	17.60	17.25	17.20	16.30	15.25	15.05	14.20	13.90
Miscellaneous Services (labor, fuel, and equipment included)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Removing snow (loader), / hour	\$110.65	\$84.80	\$75.30	\$77.25	\$77.65	\$78.25	\$83.40	\$78.10	\$77.90	\$79.15
Removing snow (blade), / hour / foot of blade	11.50	9.60	7.70		10.95	9.40		5.35	5.65	9.40
Removing snow (blower), / hour / foot of blower	18.45	17.75	15.45	17.10	15.00	11.90	13.25	10.30	11.00	12.90
Tub grinding hay, / hour		218.75	255.00	251.65	256.45		232.00	208.85	221.70	223.55
Tub grinding hay, / ton		11.40	11.90						11.40	11.95
Spreading liquid manure, injected, / 1,000 gallon	16.65	13.50	13.35	14.15	14.25	12.35	14.75	13.30	13.50	13.20
Applying liquid manure with drag line, / 1,000 gallon	13.50	12.70	11.65	11.05	12.05	11.15	13.30	12.65	12.25	10.85
Loading solid manure, / hour	115.00	91.45	78.00	81.65	80.70		78.90	77.60	76.05	79.75
Loading, spreading solid manure, / ton		6.00	4.95	5.50	5.25					
Loading, spreading solid manure, / hour	164.00	141.65	130.00	118.35	108.90	107.25	121.10	120.25	122.25	126.30
Power washing, / hour	54.70	46.10	47.55	56.45	49.35	46.25	46.20	43.25	42.10	39.60
Building fence, barbed (no materials), / hour		19.60	16.75	16.20	16.35	19.00	19.00	15.60	16.45	16.40
Building fence, barbed (no materials), / rod		10.40	10.80	12.45	17.30	13.80	15.25	15.00	14.25	14.00
Building fence, woven/barbed (no materials), / hour			20.00	16.15		18.35	20.95	17.45	17.50	
Building fence, woven/barbed (no materials), / rod			11.60	15.50			16.40	15.35	14.75	16.00
Scouting crops, / acre	6.20	5.05	3.70	4.50	4.25	4.25	5.70	4.25	4.90	4.85
Scouting crops with drone, / acre		4.30	3.30	3.55	3.80		3.15	2.60		
Soil testing, / sample		3.75	4.15	4.80	5.00	5.45	6.95	5.60	6.45	7.75
GPS grid soil testing, / acre	6.45	6.50	6.75	6.40	7.00	7.10	7.80	7.20	6.80	7.20
Managing stored grain, / bushel	0.09	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.07
Vacuuming grain, / bushel	0.15	0.11	0.10	0.11	0.10	0.09	0.10	0.09	0.09	0.10
Livestock hauling with trailer, / loaded mile	3.80	3.10	2.55	2.95	3.00	2.95	3.00	2.90	2.80	2.70
Livestock hauling with semi truck, / loaded mile		4.35	3.55	3.85	3.85	3.85	3.90	3.75	3.90	3.75
Bulldozing, / hour, / foot of blade	17.90		11.85	12.75	12.85	13.10	14.65	12.45	12.60	13.60
Digging post holes, / hole		4.00	3.55	4.35	4.90	3.55	4.05	3.70	3.95	3.80
Driving steel fence posts, / post		1.30	1.00	1.40		2.70	2.65	2.60	2.55	2.60
Trenching, / foot		1.60	1.60	1.85	1.75	1.80	1.45	1.40	1.45	1.40
Tiling, tiling machine (excluding materials), / foot		1.05	1.00	1.10	1.10	0.95	1.05	1.10	1.15	1.10
Tiling, tile plow (excluding materials), / foot	1.05	0.89	0.79	0.74	0.99	0.69	0.79	0.72	0.76	0.82
Backhoeing, / hour	109.95	103.80	94.45	105.25	95.70	98.60	98.15	94.45	91.25	93.35
Clearing land, / hour		147.10	144.60	163.55	162.50	147.10	153.25	133.70	135.45	134.35
Chain sawing, / hour	77.80	64.70	64.40	66.80	64.05	61.25	63.85	57.85	58.70	52.45
Welding machinery, / hour	80.00	65.45	65.00	62.50	62.55	59.00	56.50	52.15	52.80	47.95
Mowing CRP or pasture, / acre	25.25	24.10	19.20	19.15	18.75	17.90	18.35	17.45	18.35	16.15
Controlled burning of grass, CRP, pasture, / acre	37.20	30.30	20.65	20.75	20.60					
Mowing fence rows, ditches, / hour	88.15	69.90	66.35	70.50	71.90	67.95	73.40	68.75	69.70	70.05
Mowing lawns, / hour	57.85	43.30	45.50	47.50	41.10	38.60	42.55	38.55	38.05	36.65
Chopping brush, / acre	38.20	35.50	33.20	37.45	39.30	33.95	39.05	33.95	28.30	26.75
Using truck scale, / load weighed	9.05	2.35	2.15		5.55	4.85	6.00	5.60	3.95	3.45
Bin Rental	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Storing grain, bin rental, / bushel / month	\$0.030	\$0.030	\$0.031	\$0.030	\$0.027	\$0.025	\$0.025	\$0.024	\$0.031	\$0.025
Storing grain, bin rental, / bushel / year	0.165	0.155	0.148	0.156	0.159	0.158	0.17	0.159	0.176	0.17

Machine Rental (operator, tractor, and fuel not included)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Tractor, / horsepower, / hour	\$0.27	\$0.27	\$0.24	\$0.23	\$0.21	\$0.20	\$0.22	\$0.22	\$0.28	\$0.27
Grain drill, / acre		12.85	10.30	11.15	9.90	10.05	10.85	10.50	10.35	9.55
No-till soybean drill, / acre		16.75	13.35	13.45	12.40	12.80	13.35	12.30	12.70	12.15
Corn head for combine, / acre	10.70	9.15	9.80	9.80	9.05	9.25	9.10	9.85	10.05	8.80
Soybean head for combine, / acre	13.55	9.80	10.35	9.30	8.95	9.35	9.00	9.40	9.50	8.90
Grain cart with auger, corn, / acre	5.75	6.20	5.85	6.50	6.05	7.25	6.85	6.70	6.45	6.55
Grain cart with auger, soybean, / acre	5.80	6.50	5.80	5.70	5.40	6.70	6.15	6.00	5.80	5.55
Grain truck (semi), / bushel, / round trip	0.16	0.10	0.08	0.10	0.10	0.12	0.13	0.12	0.12	0.12
Grain auger, / bushel	0.11	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Grain vacuum, / bushel	0.13	0.11	0.11	0.08	0.08	0.08	0.10	0.08	0.08	0.08
Solid manure spreader, / hour			52.50	60.70	57.00		46.85	45.35	43.55	46.25
Skid loader, / hour	73.50	67.80	58.75	65.85	66.65	64.65	67.95	57.70	53.40	57.90
Dry bulk fertilizer applicator, / acre		5.95	5.25	4.95	5.65	4.15	5.20	3.70	3.75	3.80
Liquid fertilizer applicator, / acre			6.65	6.50	6.70	5.75	6.50	4.95	5.75	6.55
Anhydrous fertilizer applicator, / acre	4.50	5.20	6.00	6.50	7.75	7.55	8.00	4.80	5.70	5.05
Power washer, / hour		29.50	37.50	40.00	41.90	40.00	37.80	41.65	40.55	43.35
Generator, / hour			45.70	50.00	50.00	45.75	45.00	44.35	43.05	45.15
Survey Information	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total survey respondents	94	122	118	106	121	124	152	182	166	195
Total survey responses	2,621	3,389	3,785	3,022	3,716	4,043				

Source: [Iowa Farm Custom Rate Survey](http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf), www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf

A [Decision Tool](http://www.extension.iastate.edu/agdm/crops/xls/a3-12historiccustomrates.xlsx) with additional averages by year and operation is available from the Ag Decision Maker website, www.extension.iastate.edu/agdm/crops/xls/a3-12historiccustomrates.xlsx.

[Archived publications](https://iastate.app.box.com/v/isu-custom-rate-survey) of previous surveys are also available, <https://iastate.app.box.com/v/isu-custom-rate-survey>

More information 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.

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Prepared by Ann Johanns,
extension program specialist
aholste@iastate.edu
Alejandro Plastina, extension economist,
plastina@iastate.edu
extension.iastate.edu/agdm