

2025 Michigan State University Custom Work Rates



Zachariah Rutledge, Assistant Professor
Steven Miller, Assistant Professor

Corey Clark, Farm Business Management Educator

Built on the Farm Machinery Economic Cost Estimation Spreadsheet (MACHDATA.XLSM) from:



by William F. Lazarus
Extension Economist, University of Minnesota

Custom Rate Parameters:

Skilled labor rate \$/hr = \$33.00
Unskilled labor rate \$/hr = \$20.61
Interest Rate = 4.88%
Fuel price = \$3.76
Lubrication cost = 15.0% of fuel

Sources:

USDA Farm Labor Report: <https://usda.library.cornell.edu/concern/publications/x920fw89s?locale=en>
USDA Farm Labor Report: <https://usda.library.cornell.edu/concern/publications/x920fw89s?locale=en>
Federal Reserve Economic Data: <https://fred.stlouisfed.org/series/DGS10>
AAA website for Michigan: <https://gasprices.aaa.com/?state=MI>
Added in to "power cost"

2025 Michigan State University Custom Work Rates

Tractor, combine or Forage Harvester HP ¹	Net Cost of a New Power Unit ²	Annual Hours of Use	Fuel & Oil Cost Per Hour	Maintenance & Repair Cost/Hr	Depreciation Cost Per Hour	-- Overhead ³ --		Total Cost Per Year Of Use	Total Cost Per Hour Of Use	Diesel Use
						Cost Per Year	Cost Per Hour			Gal / Hr
Tractors, Combines, and Self-Propelled Forage Harvesters (Without Heads)										
40 HP	\$33,000	400	\$7.61	\$1.11	\$3.07	\$1,592	\$3.98	\$6,306	\$15.77	1.76
60 HP	37,000	400	11.42	1.24	3.44	1,786	4.47	8,224	20.56	2.64
75 HP	65,000	400	14.27	2.30	5.64	3,122	7.80	12,006	30.02	3.30
105 HP MFWD	173,000	450	19.98	5.19	16.05	7,754	17.23	26,300	58.44	4.62
130 HP MFWD	239,000	450	24.73	7.17	22.17	10,667	23.71	35,000	77.78	5.72
160 HP MFWD	299,000	500	30.44	9.97	25.25	13,336	26.67	46,165	92.33	7.04
200 HP MFWD	387,000	500	38.05	12.90	32.68	17,214	34.43	59,030	118.06	8.80
225 HP MFWD	402,000	400	42.81	10.72	41.44	18,038	45.09	56,023	140.06	9.90
260 HP MFWD	480,000	400	49.47	7.68	49.48	21,491	53.73	64,140	160.35	11.44
310 HP 4WD	491,000	400	58.98	7.86	50.61	21,978	54.94	68,956	172.39	13.64
360 HP 4WD	451,000	400	68.49	7.22	46.49	20,207	50.52	69,085	172.71	15.84
425 HP 4WD	536,000	400	80.86	8.58	55.25	23,970	59.92	81,843	204.61	18.70
275 HP Combine	447,000	400	52.32	105.71	80.87	15,792	39.48	111,353	278.38	12.10
375 HP Combine	525,000	400	71.35	124.15	94.99	18,577	46.44	134,771	336.93	16.50
440 HP Combine	557,000	400	72.88	131.72	100.78	19,680	49.20	141,830	354.57	16.85
400 HP SP Forage Harvester Base Unit	524,000	350	41.51	73.19	26.57	27,555	78.73	77,002	220.01	9.60
625 HP SP Forage Harvester Base Unit	630,000	350	64.86	88.00	31.95	33,031	94.38	97,714	279.18	15.00

¹HP shown for the smaller tractors is PTO horsepower. Engine HP is shown for the larger tractors. PTO HP for the larger tractors runs about 87% of engine HP, and is shown in parentheses. Fuel use is estimated at 0.044 gallons of diesel fuel per hour per PTO HP.

²Net cost of a new unit assumes no trade-in. Farm machinery is exempt from sales tax in Michigan so no sales tax is included.

³Overhead costs include interest, insurance, and housing but not depreciation, which is shown separately because it varies to some extent with use. Overhead per hour will vary with annual use.

2025 Michigan State University Custom Work Rates

Implement	Tractor Size (HP)	Net Cost Of a New Implement ¹	--Estimated-- Work Performed		-Power Cost/Acre ² -		Labor Cost Per Acre	--Implement Cost/Acre--			Total Cost Per Acre ⁴
			Acres/hr	Acres/yr	Fuel	Other		Repairs	Depreciation	Overhead ³	
Tillage											
Chisel Plow 23 Ft	200 HP MFWD	\$59,500	11.85	711	\$2.83	\$7.14	\$1.77	\$1.37	\$4.53	\$3.71	\$ 21.34
Chisel Plow 37 Ft	310 HP 4WD	\$87,000	19.06	1,144	\$2.95	\$6.10	\$1.10	\$1.25	\$4.12	\$3.37	\$ 18.88
Chisel Plow 57 Ft	425 HP 4WD	\$146,000	29.36	1,762	\$3.29	\$3.68	\$0.72	\$1.36	\$4.48	\$3.54	\$ 17.06
Chisel Plow, Front Dsk 16.3 Ft	200 HP MFWD	\$38,000	8.37	670	\$5.39	\$8.72	\$2.51	\$0.88	\$2.75	\$2.71	\$ 22.95
Chisel Plow, Front Dsk 21.3 Ft Fold	310 HP 4WD	\$59,500	10.95	876	\$4.55	\$11.20	\$1.92	\$1.06	\$3.29	\$3.10	\$ 25.12
Moldboard Plow 6 Bottom-18, 9 Ft	130 HP MFWD	\$33,500	4.17	501	\$5.47	\$13.17	\$5.04	\$3.46	\$3.62	\$2.95	\$ 33.71
Moldboard Plow 8 Bottom-18, 12 Ft	160 HP MFWD	\$44,500	5.56	668	\$5.93	\$10.67	\$3.78	\$3.45	\$3.61	\$2.90	\$ 30.33
Field Cultivator 23 Ft	105 HP MFWD	\$54,000	16.59	1,659	\$1.48	\$2.04	\$1.27	\$1.05	\$1.76	\$1.43	\$ 9.03
Field Cultivator 47 Ft	260 HP MFWD	\$111,000	33.90	3,390	\$1.23	\$3.51	\$0.62	\$1.06	\$1.77	\$1.43	\$ 9.61
Field Cultivator 60 Ft	310 HP 4WD	\$139,000	43.27	4,327	\$1.32	\$2.66	\$0.49	\$1.04	\$1.74	\$1.38	\$ 8.63
Tandem Disk 21 Ft Fold	160 HP MFWD	\$89,000	12.22	1,222	\$3.92	\$3.63	\$1.72	\$2.44	\$3.94	\$3.14	\$ 18.79
Tandem Disk 30 Ft Fold	360 HP 4WD	\$129,000	17.45	1,745	\$2.49	\$7.40	\$1.20	\$2.47	\$4.00	\$3.13	\$ 20.70
V-Ripper 25 "O.C., 10 Ft	160 HP MFWD	\$22,550	6.18	618	\$4.71	\$10.23	\$3.40	\$1.18	\$1.97	\$1.70	\$ 23.19
V-Ripper 30 "O.C., 17 Ft	260 HP MFWD	\$29,150	10.51	1,051	\$4.92	\$10.33	\$2.00	\$0.90	\$1.50	\$1.34	\$ 20.99
Planting											
Row Crop Planter 6 Row-30, 15 Ft	60 HP	\$47,500	7.00	490	\$1.86	\$1.08	\$5.47	\$1.99	\$3.50	\$4.84	\$ 18.74
Row Crop Planter 8 Row-30, 20 Ft	75 HP	\$59,000	9.33	653	\$1.96	\$1.25	\$4.10	\$1.86	\$3.26	\$4.44	\$ 16.87
Row Crop Planter 12 Row-30, 30 Ft	105 HP MFWD	\$136,000	14.00	980	\$2.07	\$2.11	\$2.73	\$2.85	\$5.01	\$6.67	\$ 21.43
Row Crop Planter 16 Row-30, 40 Ft	200 HP MFWD	\$200,000	18.67	1,307	\$1.45	\$4.87	\$2.05	\$3.14	\$5.52	\$7.25	\$ 24.29
Row Crop Planter 24 Row-30, 60 Ft	310 HP 4WD	\$324,000	28.00	1,960	-\$2.11	\$8.26	\$1.37	\$3.40	\$5.96	\$7.73	\$ 24.62
Presswheel Drill 16 Ft	105 HP MFWD	\$29,500	6.79	509	\$2.35	\$6.26	\$5.40	\$1.38	\$3.65	\$2.45	\$ 21.49
Presswheel Drill 20 Ft	130 HP MFWD	\$35,000	8.48	636	\$2.38	\$6.79	\$4.32	\$1.31	\$3.46	\$2.34	\$ 20.59
Presswheel Drill 25 Ft	130 HP MFWD	\$63,000	10.61	795	\$2.96	\$4.37	\$3.45	\$1.88	\$4.99	\$3.24	\$ 20.90

2025 Michigan State University Custom Work Rates

Implement	Tractor Size (HP)	Net Cost Of a New Implement ¹	--Estimated-- Work Performed		-Power Cost/Acre ² -		Labor Cost Per Acre	--Implement Cost/Acre--			Total Cost Per Acre ⁴
			Acres/hr	Acres/yr	Fuel	Other		Repairs	Depreciation	Overhead ³	
Presswheel Drill 30 Ft	160 HP MFWD	\$79,500	12.73	1,018	\$2.90	\$4.36	\$2.88	\$2.12	\$4.92	\$3.15	\$ 20.32
Air Seeder Drill w/Cart 52 Ft	260 HP MFWD	\$342,000	22.06	1,765	\$2.24	\$5.03	\$1.66	\$5.27	\$12.20	\$7.40	\$ 33.80
No-Till Drill 15 Ft	130 HP MFWD	\$79,000	6.36	509	\$3.89	\$8.34	\$5.76	\$4.22	\$9.77	\$6.11	\$ 38.08
Crop Maintenance											
Row Cultivator 12 Row-30, 30 Ft	160 HP MFWD	\$48,000	15.45	1,545	\$1.97	\$4.00	\$1.39	\$0.73	\$1.68	\$1.34	\$ 11.11
Boom Sprayer, Self-Propelled 120 Ft	None	\$673,000	66.18	6,618	\$0.30	\$0.00	\$0.62	\$1.19	\$3.67	\$4.70	\$ 10.48
Boom Sprayer, Pull-Type 90 Ft	130 HP MFWD	\$54,500	46.09	1,152	\$0.54	\$1.15	\$0.89	\$0.38	\$1.71	\$2.51	\$ 7.17
Stalk Shredder 20 Ft	130 HP MFWD	\$40,500	7.76	776	\$3.19	\$6.84	\$2.92	\$1.75	\$2.53	\$2.48	\$ 19.71
Harvest											
Rotary Mower/Conditioner 12 Ft	75 HP	\$47,500	8.73	698	\$1.64	\$1.80	\$2.48	\$0.93	\$3.04	\$3.08	\$ 12.96
Hay Rake 30 Ft	40 HP	\$31,000	26.18	2,095	\$0.29	\$0.31	\$0.80	\$0.22	\$0.81	\$0.71	\$ 3.14
Hay Merger 14 Ft	75 HP	\$74,000	10.86	2,172	\$1.15	\$1.61	\$1.94	\$1.83	\$1.86	\$1.52	\$ 9.91
Hay Merger 34 Ft	160 HP MFWD	\$295,000	26.38	5,275	\$1.31	\$2.19	\$0.80	\$1.79	\$2.50	\$2.48	\$ 11.06
Hay Baler PTO Twine 12 Ft	40 HP	\$37,000	4.36	873	\$1.74	\$1.87	\$8.39	\$4.28	\$2.32	\$1.90	\$ 20.50
Round Baler w/Bale Wrap 5x6 , 20 Ft	75 HP	\$114,000	9.45	1,891	\$1.51	\$1.67	\$2.22	\$10.36	\$3.30	\$2.44	\$ 21.50
Large Rectangular Baler 3x3 , 20 Ft	130 HP MFWD	\$155,000	11.64	2,909	\$2.13	\$4.56	\$3.15	\$3.56	\$2.92	\$2.22	\$ 18.53
Large Rectangular Baler 4x3 , 20 Ft	130 HP MFWD	\$192,000	11.64	2,909	\$2.13	\$4.56	\$3.15	\$4.42	\$3.61	\$2.72	\$ 20.58
Forage Harvester, Pull-Type w/Corn Head 3 Row, 7.5 Ft	160 HP MFWD	\$96,500	2.07	414	\$14.72	\$29.92	\$17.71	\$13.15	\$4.14	\$12.38	\$ 92.03
Forage Harvester, Pull-Type w/Pickup Head 12 Ft	105 HP MFWD	\$84,500	3.31	662	\$6.04	\$11.62	\$11.07	\$7.20	\$2.27	\$6.80	\$ 44.99
Forage Harvester, Self-Prop Corn Head 6 Row, 15 Ft	625 HP SP Forage Harvester Base Unit	\$107,000	5.09	1,018	\$9.56	\$45.28	\$7.20	\$1.68	\$1.87	\$5.71	\$71.30
Forage Harvester, Self-Prop Corn Head 8 Row, 20 Ft	625 HP SP Forage Harvester Base Unit	\$141,000	6.79	1,358	\$12.74	\$28.39	\$5.40	\$1.66	\$1.84	\$5.58	\$55.61

2025 Michigan State University Custom Work Rates

Implement	Tractor Size (HP)	Net Cost Of a New Implement ¹	--Estimated-- Work Performed		-Power Cost/Acre ² -		Labor Cost Per Acre	--Implement Cost/Acre--			Total Cost Per Acre ⁴
			Acres/hr	Acres/yr	Fuel	Other		Repairs	Depreciation	Overhead ³	
Forage Harvester, Self-Prop Pickup Head 12 Ft	400 HP SP Forage Harvester Base Unit	\$35,000	4.07	815	\$10.19	\$43.83	\$8.99	\$0.69	\$0.76	\$2.58	\$67.04
Forage Harvester, Self-Prop Pickup Head (2X windrows) 24 Ft	625 HP SP Forage Harvester Base Unit	\$35,000	8.15	1,629	\$7.96	\$26.31	\$4.50	\$0.34	\$0.38	\$1.29	\$40.79
Combine Platform 20 Ft	275 HP Combine	\$36,000	5.94	1,188	\$8.81	\$38.06	\$6.17	\$0.79	\$2.09	\$1.16	\$57.09
Combine Platform 25 Ft	375 HP Combine	\$43,500	7.42	1,485	\$8.01	\$37.37	\$4.93	\$0.77	\$2.02	\$1.11	\$54.22
Combine Platform 30 Ft	375 HP Combine	\$51,000	8.91	1,782	\$9.61	\$28.21	\$4.11	\$0.75	\$1.98	\$1.07	\$45.73
Combine Corn Hd 6 Row-30, 15 Ft	275 HP Combine	\$66,000	5.09	1,018	\$7.00	\$47.69	\$7.20	\$1.70	\$4.48	\$2.41	\$70.47
Combine Corn Hd 8 Row-30, 20 Ft	275 HP Combine	\$85,500	6.79	1,358	\$9.57	\$31.45	\$5.40	\$1.65	\$4.35	\$2.35	\$54.76
Combine Chopping Corn Hd 8 Row-30, 20 Ft	275 HP Combine	\$115,000	6.79	1,358	\$8.71	\$32.30	\$5.40	\$7.65	\$3.74	\$3.79	\$61.59
Combine Corn Hd 12 Row-30, 30 Ft	375 HP Combine	\$131,000	10.18	2,036	\$10.27	\$22.82	\$3.60	\$1.69	\$4.45	\$2.36	\$45.18
Combine Corn Hd 12 Row-22, 22 Ft	375 HP Combine	\$129,000	7.47	1,493	\$7.72	\$37.41	\$4.91	\$2.26	\$5.97	\$3.17	\$61.43
Combine Chopping Corn Hd 12 Row-30, 30 Ft	440 HP Combine	\$174,000	10.18	2,036	\$9.26	\$25.56	\$3.60	\$7.72	\$3.77	\$3.78	\$53.69
Combine Chopping Corn Hd 12 Row-22, 22 Ft	440 HP Combine	\$170,000	7.47	1,493	\$6.66	\$40.83	\$4.91	\$10.29	\$5.02	\$5.04	\$72.74
Combine Belt Pickup Hd 23 Ft	275 HP Combine	\$56,000	7.81	832	\$6.70	\$28.96	\$4.69	\$0.47	\$4.50	\$2.53	\$47.85
Grain Cart 30 Ft	225 HP MFWD	\$152,000	6.87	1,375	\$6.23	\$14.15	\$3.33	\$6.07	\$6.05	\$4.43	\$40.25
Sugar Beet Harvester, Self-Propelled 15 Ft	None	\$880,000	7.73	773	\$21.62	\$0.00	\$5.34	\$78.85	\$55.19	\$48.48	\$209.48
Sugar Beet Harvester, Pull-Type 15 Ft	310 HP 4WD	\$247,500	4.73	378	\$12.48	\$23.99	\$8.73	\$33.90	\$31.72	\$28.44	\$139.25

¹Net cost of a new unit assumes no trade-in. Farm machinery is exempt from sales tax in Michigan so no sales tax is included.

²Power cost per acre for the power unit assigned to each implement multiplied times that implement's acres/hour equals that power unit's total cost per hour shown in the "Tractors, Combines, and Self-Propelled Forage Harvesters (Without Heads)" table above.

³Overhead per acre will vary with annual use.

⁴Total cost/acre is total cost per hour divided by acres per hour. Includes fuel, lubricants, power and equipment repairs and maintenance, labor, and overhead costs including depreciation. Fuel is included in power cost.

Calculating Custom Rates

If you are hiring or doing custom work, the following will help you determine the appropriate custom rate. Custom rates are based on (1) tradition or usual rates set in the community, (2) bargaining position of both parties (i.e., availability of machinery services and demand for machinery services in your local area), and (3) costs of owning and operating the machine on your farm. Cost for ownership and operation can be determined as follows:

Tractor Ownership Costs

Depreciation	$\frac{\text{original cost} - \text{value at final sale}}{\text{years of use}}$	\$ _____ per year
Interest	interest rate * current value	\$ _____ per year
Repairs	estimated 2%-5% of original cost	\$ _____ per year
Taxes	No personal property tax in Michigan	\$ <u> N/A </u> per year
Insurance	estimated 0.5% * current value	\$ _____ per year

- (A) **Total Annual Tractor Ownership Costs** \$ _____ per year
- (B) Total tractor hours _____ hours
- (C) Units per tractor hour _____ acres per hour
- (D) **Total Tractor Ownership Costs** $A \div (B \div C)$ \$ _____ per acre

Calculating Custom Rates (p. 2)

Implement Ownership Costs

Depreciation	$\frac{\text{original cost} - \text{value at final sale}}{\text{years of use}}$	\$ _____ per year
Interest	interest rate * current value	\$ _____ per year
Repairs	estimated 2%-5% of original cost	\$ _____ per year
Taxes	No personal property tax in Michigan	\$ <u> N/A </u> per year
Insurance	estimated 0.5% * current value	\$ _____ per year

(E) **Total Annual Implement Ownership Costs** \$ _____ per year

(F) Total units _____ acres

(G) **Total Implement Ownership Costs** $E \div F$ \$ _____ per acre

Calculating Custom Rates (p. 3)

Operating Costs

Fuel	fuel per acre * price per gallon * 1.15	\$ _____ per acre
Labor	hours per unit * wage rate	\$ _____ per acre

(H) **Total Operating Costs** \$ _____ per acre

Total Costs	D + G + H	\$ _____ per acre
--------------------	-----------	-------------------

Custom Rate (adjusted for bargaining power or risk)	\$ _____ per acre
------------------------------------------------------------	-------------------