Rates for Custom Work in Michigan
Michigan State University Extension Service
Gerald D. Schwab, and Dennis Gruenewald, Department of Agriculture Economics
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Rates for Custom Work in Michigan

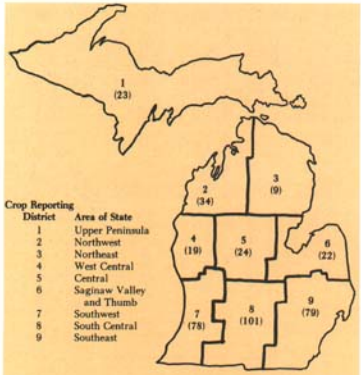
By Gerald D. Schwab and Dennis Gruenewald
Department of Agricultural Economics

Custom hire of machine services may be viewed as an economically desirable alternative for many farmers. For farmers having a relatively small land base and/or limited labor availability, hiring-in of machine services enables these farmers to employ modern machine technology at a cost that may be lower than owning and operating their own machines. For farmers who own machines, custom hiring-out the machine is a way to lower its cost per unit of production. For example, by custom hiring-out a machine, the machine ownership costs of depreciation, insurance, and interest are distributed over more acres and usually results in a lower machine ownership cost per acre.

Farmers involved in custom hire often have difficulty in determining a fair charge for both the machine owner and the machine hirer. The market for machine services may not be well established. The machine custom-hire rates reported on the following pages can be used as an indicator or guide, but not as an absolute in establishing a fair charge. The range of rates for the state is quite large. The variability of the rates may be partially attributed to lack of knowledge and differences in topography, climate, soil conditions, field size, location, equipment size and conditions, timeliness, plus services and skills performed by a particular machine or operator.

The price data were gathered in March-April 1977 from selected Michigan farmers. The usable responses numbered 389 and are distributed throughout Michigan and its nine crop reporting districts as indicated in Figure 1.

Part I, Table 1 presents the custom-hire cost data for the state and for each of the nine crop reporting districts. The number of Michigan farmers reporting each custom-hire service is given as is the most frequently reported rate(s) and the average rate for the state and each crop reporting district. A blank indicates that the information available was inadequate to report because of insufficient number of responses. This is due to misunderstanding of the information requested or because such services are not used in the particular area.



Crop Reporting District	Area of State
1	Upper Peninsula
2	Northwest
3	Northeast
4	West Central
5	Central
6	Saginaw Valley and Thumb
7	Southwest
8	South Central
9	Southeast

Figure 1. Farmer responses in each Michigan Crop Reporting District (in parentheses). Total Responses—389.

Part II suggests a technique for figuring the custom rate charge necessary to cover machinery ownership and operating expenses. A more basic question that should be asked and answered is whether machinery should be owned or custom hired. Items that might influence your decision on machinery purchase versus custom hire include availability of custom hire and its timeliness, performance of machine, income tax management utilizing investment tax credit and depreciation expense, plus alternative uses of dollars that might be invested elsewhere.

PART I, TABLE 1. CUSTOM RATES IN MICHIGAN*

CUSTOM RATE SURVEY	No. reported	State Ave.	Range	Most Frequent (number)	CROP REPORTING DISTRICT 1 Average	2 Average	3 Average	4 Average	5 Average	6 Average	7 Average	8 Average	9 Average
I. HIRED LABOR													
(1) Part-time ($/HR)	293	2.69	1.70-5.00	2.00 (40) 2.50 (80) 3.00 (71)	2.51	2.78	2.48	2.54	2.54	2.68	2.75	2.67	2.74
(2) Full-time ($/MO)	147	658.93	150.00-1100.00	480.00 (12) 600.00 (18) 800.00 (14)	435.00	556.07	567.67	537.00	693.00	700.00	690.03	726.41	879.79
(3) Furnished Full-time Labor with:	Number Reported	Number that Supplied											
House	150	88			3 of 5	8/14	2/3	7/10	4/10	2/2	20/33	20/39	22/34
Meat	150	70			4 of 5	8/14	3/3	4/10	3/10	0/2	9/33	21/39	18/34
Medical Insurance	150	64			4 of 5	4/14	0/3	4/10	4/10	0/2	12/33	18/39	18/34
II. CUSTOM FARMING RATE (Includes all machine and labor activities necessary to grow and harvest 1 acre.)													
Crop	No. Reported	State Ave.	Range	Most Frequent (number)									
(1) Corn ($ / Acre)	67	50.88	11.00-140.00	15.00 (6) 35.00 (4) 40.00 (6)	44.00	45.67	26.00	95.00	100.00	26.50	39.63	58.52	50.73
(2) Soybeans ($ / Acre)	30	36.73	10.00-115.00	30.00 (3) 46.00 (2)	-	-	-	-	-	-	26.00	38.73	41.17
(3) Small Grains ($ Acre)	51	32.96	8.00-105.00	30.00 (5)	32.17	17.50	21.50	60.00	35.00	26.67	37.77	40.40	34.20
(4) Forage ($ / Acre)	14	42.79	9.00- 90.00	40.00 (2)	9.00	27.00	22.50	-	-	-	45.00	73.33	67.75
III. EQUIPMENT RENTAL RATES													
(1) Tractor Only ($/Hr)													
All sizes	126	13.91			8.95	11.00	16.00	11.57	18.57	8.33	12.56	15.04	15.91
50 HP	10	9.80											
80	6	12.33											
100	30	11.43											
150	10	14.80											
175	15	21.00											

a/ Except where noted, the reported charge should include use of machine, tractor for pull-type machines, fuel, and the machine operator or usual crew.

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Part I, Table 1. Custom Rates in Michigan, Continued.

CUSTOM RATE SURVEY	No. Reported	State Average	Most Frequent	(No.)	CROP REPORTING DISTRICT 1 Average	2 Average	3 Average	4 Average	5 Average	6 Average	7 Average	8 Average	9 Average
(2) Plowing		($ / Acre)											
(a) Moldboard													
All sizes	169	8.83			8.19	11.71	8.60	7.79	7.75	9.40	8.46	9.68	8.12
3	12	8.46											
4	19	8.74											
5	50	8.57											
6	54	9.07											
7	15	9.53											
8	11	8.50											
(b) Chisel													
All Sizes	34	6.34			4.25	8.33	7.50	6.50	4.23	7.00	6.02	7.05	5.50
(3) Disking		($ /Acre)											
All Sizes	88	4.39			4.43	9.40	3.67	4.80	3.46	2.50	3.79	4.53	3.74
(4) Harrowing (Dragging)		($ /Acre)											
All Sizes	56	3.50			3.56	11.00	2.50	3.00	2.50	2.05	2.96	3.54	2.88
12 ft.	9	4.64											
16 ft.	12	3.54											
20 ft.	13	2.64											
(5) Cultipacking		($ / Acre)			2.75	5.25	2.00	-	2.50	5.50	3.00	2.50	3.00
All Sizes	19	3.18											
(6) Fertilizer Application		($ / Acre)											
Dry Bulk	57	1.99	2.00	(21)	1.92	5.00	2.25	2.33	2.42	2.13	1.60	2.32	1.79
Liquid-Knifed in	13	3.35	3.00	(7)	-	-	-	-	3.00	3.00	3.30	4.75	2.88
Liquid-Ground Spray	37	2.37	2.00	(9)	1.50	10.00	2.00	-	3.25	1.94	1.95	2.17	2.36
Liquid-Aerial Spray	14	3.53	3.00	(4)	-	-	-	-	5.50	-	3.85	3.50	2.75
Gas-Knifed in	48	3.62	3.00	(14)	-	5.00	-	3.50	4.00	-	3.05	4.01	3.41
(7) Planting Corn/Beans		($ / Acre)											
(a) No Fertilizer													
All Sizes	42	4.43			7.50	7.00	5.50	5.00	3.58	4.00	4.25	4.47	3.83
4 rows All	15	4.45											
6 rows 30"	23	4.39											
8 rows All	5	4.60											

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Part I, Table 1. Custom Rates in Michigan, Continued.

CUSTOM RATE SURVEY

	No. Reported	State Ave.	CROP REPORTING DISTRICT 1 Average	2 Average	3 Average	4 Average	5 Average	6 Average	7 Average	8 Average	9 Average
(b) With Fertilizer											
All Sizes	21	5.29	5.00	5.18	7.50	4.70	5.00	5.20	5.39	5.33	5.32
4 rows - All Widths	41	5.01									
4 rows - 30"	7	4.14									
4 36"	10	4.75									
4 38"	16	5.16									
6 30"	40	5.38									
8 30"	10	5.82									
(8) Drilling (Small Grains and Forages)		($ / Acre)									
(a) No Fertilizer											
All Sizes	33	3.77	5.00	-	3.00	4.38	3.08	3.00	4.07	3.80	3.57
13 holes	6	3.21									
17	10	4.08									
21	4	4.25									
(b) With Fertilizers											
All Sizes	21	5.68	15.00	4.88	-	4.25	4.00	-	4.50	6.38	6.00
13 holes	7	4.21									
17	9	6.58									
(9) Planting Sugar Beets		($ / Acre)									
All Sizes	5	5.95	-	-	-	-	-	6.19	-	-	5.00
(10) Cultivating		($ / Acre)									
(a) Cultivator											
All Sizes	43	3.20	2.50	2.75	2.75	3.50	5.00	3.38	3.26	3.32	3.05
4 rows	18	3.39									
6	17	3.06									
8	4	3.38									
(b) Rotary Hoe											
All Sizes	18	2.10	-	-	-	-	-	-	2.10	2.65	1.75
4 rows	6	2.21									
6	8	2.13									
8	3	2.17									
(11) Combining	No. Reported	State Average ($ / Acre)									
(a) Corn											
All Sizes	161	14.35	-	13.20	14.00	16.25	14.08	15.10	14.27	14.13	14.41
Combine 2 rows	13	12.08									
3	15	12.93									
4	87	14.68									
6	42	14.90									
8	4	14.00									
(b) Small Grain											
All Sizes	207	11.20	9.83	11.00	10.00	12.09	11.00	10.67	11.45	11.15	11.70
Combine 10'	22	10.77									
13	65	11.31									
15	32	11.00									
(c) Soybeans											
All Sizes	50	12.86	-	-	-	14.00	12.25	15.00	13.78	13.2	12.10
Combine 4 rows	9	13.11									
5	13	12.69									
6	20	13.20									

(d) Field Beans														
All Sizes	9	12.22					-	-	-	15.00	11.00	11.50	-	12.67	-
Alfalfa and Clover														
All Sizes	8	12.88					10.50	9.50	8.00	-	10.00	-	-	19.00	-
(f) Ear Corn Picker	40	10.70					12.00	11.00	10.00	10.50	10.00	11.60	11.67	10.24	11.00
(12) Field Chopping-Corn Silage														
All Types/Sizes	28	26.86					-	23.33	13.00	30.00	32.50	45.00	17.33	25.00	32.50
Pull type (2 row)	16	24.69												
Self propelled (3 row)	10	30.20												
(13) Field Chopping-Haylage														
All Sizes	5	29.00					-	25.00	-	-	15.00	-	13.50	30.00	40.00
Pull type 9'	2	32.50												
10'	2	27.50												
			Range		Most Frequent (No.)									
(14) Silo-Filling (Including charges for field chopping, handling, blowing and/or packing.)														
(a) Tower silo														
$Cost/ton	14	2.20	1.00- 5.00		2.00	(6)	5.00	2.50	-	-	2.00	-	2.00	1.71	2.00
$Cost/Acre	12	20.96	1.50-30.00		30.00	(3)	11.00	-	-	27.50	-	-	24.00	11.83	26.00
$Cost/Hour	35	32.00	20.00-60.00		30.00	(7)	25.00	32.00	-	33.75	25.00	26.67	32.00	32.27	36.00
(b) Horizontal														
$Cost/Ton	5	1.96	1.00- 2.50		2.00	(2)	-	2.00	-	-	-	-	1.50	2.30	2.50
$Cost/Acre	4	24.25	17.00-30.00		30.00	(2)	-	-	-	30.00	-	-	30.00	-	18.50
$Cost/Hour	9	33.11	25.00-40.00		40.00	(3)		32.50	25.00	35.00	25.00	-	32.50	36.00	-
(15) Haying ($ / Acre)														
(a) Mowing	28	3.83	1.50-10.00		3.00	(8)	4.44	2.67	2.00	5.00	4.00	-	2.94	3.80	5.00
(b) Raking	28	2.50	1.50- 7.00		2.00	(13)	3.20	2.17	1.50	2.25	3.00	2.00	2.08	2.37	2.67
(c) Pull-type (Mower-conditioner)	53	5.18	2.00-12.00		5.00	(12)	5.10	5.79	3.50	5.60	6.19	4.10	4.75	5.40	4.83
(d) Self-propelled (Mower conditioner)	17	6.21	3.00-15.00		5.00	(5)	-	4.25	4.00	-	6.50	-	4.63	8.83	6.50
(16) Hay Harvest ($ / Bale)														
(a) Conventional Balers														
(1) Hay (twine) 40-80 lb	79	.20	-		-		.22	.15	.18	.15	.17	.18	.21	.19	.24
(2) Straw (twine) 30-65 lb	56	.20	-		-		.22	.19	.13	.17	.20	.22	.21	.18	.22
(3) Hauling Bales 40-55 lb	7	.07	-		-		-	.10	-	.05	-	-	.08	-	-
(b) Big Bale Baler														
(1) Hay (800-1500 lb)	30	4.94					4.25	5.88	-	5.00	-	5.00	5.00	5.11	4.67
(2) Straw (1000-1500 lb)	7	5.79					5.00	3.50	-	-	-	-	12.00	5.50	4.50
(c) Mechanical Long Hay Stackers														
(1) Hay (Stack not over 2 tons)	3	12.67					8.00	30.00	-	-	-	-	-	15.00	-
(2) Hay (Stack over 2 tons)	6	22.92					-	30.00	-	-	22.50	-	5.00	16.25	-
(3) Straw (stack not over 2 tons	3	20.00					-	30.00	-	-	-	-	-	15.00	-
(4) Straw (stack over 2 tons)	3	25.00					-	30.00	-	-	25.00	-	5.00	25.00	-

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Part I, Table 1. Custom Rates in Michigan, Continued.

CUSTOM RATE SURVEY	Number Reported	State Ave.	Range	Most Frequent	(No.)	CROP REPORTING DISTRICT 1 Average	2 Average	3 Average	4 Average	5 Average	6 Average	7 Average	8 Average	9 Average
(17) Other Harvesting Work ($/Acre)														
Stalk shredding	10	3.58	2.00- 6.50	-	-	-	4.00	3.00	-	-	-	2.50	4.45	2.00
Harvesting Sugar Beets	9	34.11	25.00-40.00	35.00	(3)	-	-	-	-	30.00	34.57	-	-	35.00
Bean Windrowing	6	4.83	2.00- 8.00	6.00	(2)	-	3.00	-	-	6.00	7.00	-	3.00	-
(18) Manure Handling ($ /Hour)														
Yard Scraping	16	8.63	2.00-20.00	10.00	(5)	2.00	10.00	6.00	8.00	8.00	-	6.00	8.25	14.33
Loading with tractor	33	10.29	2.00-20.00	10.00	(9)	6.10	10.00	6.00	8.00	12.00	-	8.83	12.64	10.25
Spreading and hauling	19	9.98	3.00-20.00	5.00	(4)	6.77	17.33	10.00	12.00	10.00	-	8.50	12.00	5.00
Liquid Manure														
Pump Rental	9	9.79	3.00-15.00	-	-	-	13.33	12.50	5.00	-	15.00	6.50	7.50	-
Spreading and Hauling	7	12.00	7.00-20.00	15.00	(3)	-	16.67	-	12.00	-	-	3.80	15.00	-
(19) Miscellaneous Custom Work (Including only the cost for machine and labor service hired)														
Boom Spraying (Material cost not included) ($/Acre)														
(a) Insect and disease control	41	2.42	1.25- 4.00	3.00	(10)	2.00	2.93	2.75	2.50	2.75	2.25	1.89	2.34	2.27
(b) Weed Control	97	2.52	1.00-12.00	2.00	(25)	2.65	2.55	2.50	2.56	2.25	3.17	2.04	2.39	2.94
Aerial Spraying (Material cost not included) ($/Acre)														
(a) Airolane- insects and disease	65	3.51	1.50- 8.00	3.00	(14)	7.75	3.31	-	3.20	2.17	3.50	4.16	3.51	2.99
(b) Helicopter- insects and disease	23	3.48	2.75- 4.50	3.00	(7)	-	3.88	-	3.80	3.38	-	4.13	3.35	3.11
(c) Airplane - weed and brush	8	3.07	2.00- 3.90	3.25	(3)	-	-	-	-	-	-	3.15	3.13	3.00
(d) Helicopter-weed and brush	4	4.13	3.00- 5.50	-	-	-	-	-	-	4.50	-	4.50	-	3.00
Shelling Ear Corn from Crib ($/BU)	7	.09	.05- .10	-	-	-	.10	-	-	.10	-	.07	.08	-
Drying Corn ($/BU)														
(a) up to 5 points moisture removed	20	.10	.05- .18	.10	(11)	-	.11	-	.14	.10	-	.09	.10	.08
(b) up to 10 points moisture removed	25	.16	.10- .23	.20	(8)	-	.18	-	.20	.18	-	.13	.19	.14
(c) up to 15 points moisture removed	19	.23	.14- .30	.30	(6)	-	.30	-	.25	.30	-	.19	.27	.21
(d) more than 15 points moisture removed	9	.31	.20- .40	-	-	-	.40	-	.28	-	-	.28	.40	.28

CUSTOM RATE SURVEY	No. Reported	State Ave.	Range	Most Frequent	(No.)	CROP REPORTING DISTRICT 1 Average	2 Average	3 Average	4 Average	5 Average	6 Average	7 Average	8 Average	9 Average
Sheep Shearing ($/head)	10	1.08	.75- 1.50	1.00	(6)	1.50	1.25	-	1.13	-	-	1.00	.92	1.00
Boring Post Holes ($/Hole)	10	.48	.15- 1.00	.25	(4)	.27	-	.28	.15	.33	.95	.25	-	1.00
Tiling ($/rod)														
(a) digging-trenching	33	3.45	1.86- 6.25	2.00	(3)	7.58	4.00	2.73	3.28	2.51	-	4.30	3.97	2.48
(b) plastic pipe	38	3.51	.55- 8.50	4.00	(3)	5.00	-	3.20	8.25	3.39	1.40	4.44	3.02	3.06
(c) clay tile	9	3.52	2.00- 6.00	-		-	-	-	-	-	-	5.00	5.15	2.73
Bulldozing ($/Hour)														
8'	38	24.62	-	-	-	18.50	17.33	15.50	24.75	22.50	25.00	22.92	31.61	22.42
10'	42	30.00	-	-	-	22.00	-	-	30.00	30.00	25.00	27.56	32.09	32.80
12'	19	34.11	-	-	-	30.00	42.50	-	40.00	25.50	40.00	38.33	36.67	29.40
Backhoe ($/hour)	88	21.67	7.00-40.00	25.00	(20)	18.67	21.50	21.30	-	17.67	21.33	20.14	23.03	22.59
Dragline (1/2 cu. yd) ($/hour)	23	30.24	18.00-45.00	25.00	(7)	28.33	25.00	18.00	45.00	-	37.00	28.40	29.19	32.00
Grinding Feed ($/CWT)	17	.31	.10- .80	.20	(4)	.35	.57	-	.23	-	-	.24	.25	.18
Grinding and Mixing Feed ($/CWT)	24	.35	.15- 1.00	-	-	.57	.58	.50	.25	.25	.50	.26	.23	.23
Chainsaw Work ($/hour)	17	7.79	4.00-20.00	-	-	5.83	6.00	5.50	-	-	-	11.67	9.33	8.00

Part II—How to figure custom rates

If you are hiring or doing custom work, the following will help you set the custom rate. Custom rates are based on (1) tradition or usual rates set in the community, (2) bargaining position of both parties, and (3) costs of operating the machines on your farm.

Here is how the machine cost of operation can be determined:

A. Ownership cost per unit (acre, bushel, ton, hour)

Depreciation: $\frac{\text{Original cost-salvage value}}{\text{estimated life}}$ ..... $ _____

Interest: Interest rate × original cost ÷ 2 ..... _____

Repairs: Estimated 2 to 5% of original cost ..... _____

Taxes and insurance: Estimated 1 to 2% of original cost ..... _____

Total ownership cost annually ..... _____

Ownership cost per unit: Total ownership cost ÷ estimated annual use (acre, hour, bushel, ton) ..... (A) $ _____

B. Operating cost per unit (acre, hour, bushel, ton)

Tractor: Gas, diesel fuel, oil, and minor maintenance

Gal. gas per unit × price × 1.10* ..... _____

Machine: Gas, oil, maintenance

Gal. gas per unit × price × 1.10* ..... _____

Labor: Hours per unit × wage rate. If acres, bushels or tons, divide the wage rate by acres, bushels or tons per hour ..... _____

Total operating cost per unit ..... (B) $ _____

C. Total ownership and operating cost (A + B) per unit . $ _____

D. Custom rate (per acre, hour, bushel, or ton) ..... $ _____
Total ownership and operating cost may be adjusted because of bargaining power, or risk.

*The addition of 10% gasoline cost is for oil and minor maintenance.

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