

● Custom Work Rates in Michigan

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THE PRIMARY PURPOSE of this bulletin is to present the most recent price data for custom work rates in Michigan. The data were gathered in April-May 1982 from selected Michigan farmers. The usable responses numbered 269 and are distributed throughout Michigan and its nine crop reporting districts as indicated in Figure 1.

Custom work may be viewed as an economically desirable alternative for many farmers. Custom work is defined to include the machine service and inputs associated with the machinery use such as labor and fuel.

For farmers having a relatively small land base and/or limited labor or skill availability, the 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 their ownership 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. This market price for machine services should be a function of the demand for, and the supply of, these custom work services.

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. This variability may be partially attributed to lack of knowledge or awareness of the relevant costs and to differences in topography, climate, soil

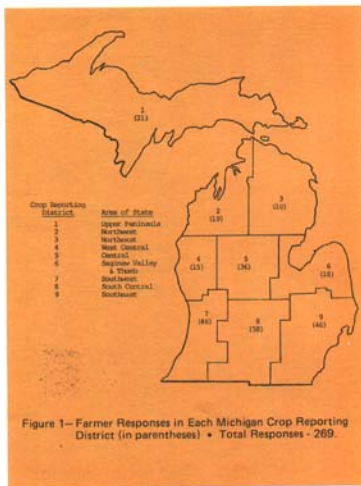


Figure 1—Farmer Responses in Each Michigan Crop Reporting District (in parentheses) • Total Responses - 269

conditions, field size, location, equipment size and conditions, timeliness, plus services and skills performed by a particular machine or operator. It is also possible that some rates do not cover all costs. This may be because the work is being performed for friends or relatives and because some machine owners view custom work as supplementary income; i.e., custom work is performed only after their own work is completed.

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 average rate for the state and each crop reporting district. A blank indicates that price data were not available. This is due to misunderstanding of the information requested or because such services are not used in the particular area.

Part II suggests a technique for figuring the custom rate charge necessary to cover machinery ownership and oper-



ating 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, interest rates and alternative uses of dollars that might be invested elsewhere.

PART I. TABLE 1. CUSTOM RATES IN MICHIGAN ^a

CUSTOM RATE SURVEY		CROP REPORTING DISTRICT										
		1	2	3	4	5	6	7	8	9		
		Average		Average		Average		Average		Average		
I. HIRED LABOR		No. Reported	State Average									
(1) Part-Time (\$/HR)	207	\$3.80	4.07	2.94	3.81	3.83	3.75	3.80	3.83	3.73		
(2) Full-Time (\$/Wk)	109	\$926.	759.	493.	1110.	1002.	984.	981.	911.	934.		
(3) No. Reporting Full-time Labor	109	10	10	3	5	14	7	23	22	15		
(4) Percent that Furnished Full-time Labor with:												
House	58											
Wheat	59											
Milk	51											
Medical Insurance	58											
Life Insurance	13											
Worker's Compensation	100											
Unemployment Insurance	9											
Transportation	12											
Retirement Plan	6											

II. CUSTOM FARMING RATE

(Includes all machinery and labor activities necessary to grow and harvest 1 acre.)

Crop	No. Reported		State Average									
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
(1) Corn (\$/acre)	28		\$103.50	78.00	250.00	50.00	33.00	150.20	85.20	106.20	142.67	63.40
(2) Soybeans (\$/acre)	12		75.25	--	--	50.00	--	100.00	125.00	94.00	59.50	56.75
(3) Small Grains (\$/acre)	17		57.10	63.00	--	--	25.00	89.00	67.50	41.33	54.00	51.40
(4) Forage (\$/Acre)	8		87.15	--	--	--	--	153.33	40.67	30.00	--	85.00

III. EQUIPMENT RENTAL RATES

(1) Tractor Only (\$/hr.)

No. Reported 46
State Average \$17.00

All sizes averaged 100 Hp.
\$/hr.

(HP)

12.80 21.58 23.33 27.00 17.40 12.00 17.50 9.35 20.00
(75) (52) (128) (100) (112) (121) (82) (83) (126)

^{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.

PART I, TABLE I. CUSTOM RATES IN MICHIGAN, continued

CUSTOM RATE SURVEY

CROP-REPORTING DISTRICT

III. EQUIPMENT RENTAL RATES continued TILLAGE/PLANTING/WEED CONTROL	No. Reported	State Average (\$/acre)	Average											
			1	2	3	4	5	6	7	8	9			
(2) Plowing														
(a) Moldboard All sizes	74	\$11.55	10.67	8.75	12.00	11.25	11.47	12.60	11.96	11.63	11.70			
(b) Chisel All sizes	57	9.10	6.03	6.83	6.33	10.17	9.36	9.40	10.00	9.36	9.14			
(3) Tandem or Offset Disk All sizes	46	7.85	7.00	9.88	7.70	8.75	7.36	8.17	7.43	7.68	7.81			
(4) Field Cultivator All sizes	41	5.75	5.00	7.50	6.60	5.00	5.50	5.38	4.67	6.21	5.81			
(5) Cultivator All sizes	21	5.60	--	2.50	5.00	5.00	6.50	4.00	4.75	5.45	7.60			
(6) Fertilizer Application														
Dry Bulk	41	3.20	--	2.00	2.50	4.50	3.22	2.96	3.08	3.03	3.93			
Liquid-Roiled In	10	4.95	--	5.00	--	4.50	--	2.75	--	5.63	6.00			
Liquid-Ground Spray	33	3.85	--	2.75	4.00	4.50	9.25	3.22	4.06	3.35	4.00			
Gas-floiled In	23	5.70	--	5.00	--	5.00	--	3.50	3.75	4.92	6.00			
(7) Planting Corn/beans														
(a) Conventional Planting, No Fertilizer	30	7.10	6.33	5.00	4.25	7.33	11.50	4.00	5.80	6.80	8.67			
(b) Conventional Planting, With Fertilizer	57	8.00	5.50	6.67	6.50	8.25	10.07	7.75	7.83	8.06	8.43			
(c) Conservation Tillage Planter	27	10.55	--	14.33	--	9.83	8.38	--	8.42	11.39	12.88			
(8) Drilling														
(Small Grains and Potatoes)	45	5.90	6.00	5.50	5.67	4.30	8.75	3.75	4.63	5.85	7.53			
(9) Planting Potatoes	2	21.00	--	15.00	--	--	--	--	27.00	--	--			
(10) Planting Sugar Beets	5	10.80	--	--	--	--	--	10.67	--	--	11.00			
(11) Cultivating														
(a) Cultivator--All Sizes	21	4.45	5.00	--	4.17	--	5.50	2.00	4.25	4.50	5.63			
(b) Rotary Hoe--All Sizes	22	4.10	10.00	4.25	3.50	--	--	1.50	3.15	4.88	4.33			
(12) Spraying														
(a) Ground rig--Weeds & Brush	40	4.00	4.50	3.00	3.13	4.75	5.70	2.63	3.56	3.65	5.02			
(b) Ground rig--Insects & Disease	29	3.50	2.25	4.20	3.00	4.50	--	3.00	2.92	3.57	4.25			
(c) Aerial rig--Weeds & Brush	11	5.30	--	--	--	5.00	5.00	--	4.88	5.33	6.25			
(d) Aerial rig--Insects & Disease	17	4.90	--	--	--	5.00	4.67	5.25	4.79	4.50	5.17			

PART 1, TABLE 1, CUSTOM RATES IN MICHIGAN, continued

	CUSTOM RATE SURVEY	CROP REPORTING DISTRICT									
		1	2	3	4	5	6	7	8	9	
		Average		Average		Average		Average		Average	

III. EQUIPMENT RENTAL RATES continued

HARVESTING	No. Reported	State Average (\$/acre)	CROP REPORTING DISTRICT									
			1	2	3	4	5	6	7	8	9	
			Average		Average		Average		Average		Average	
(13) Combining												
(a) Corn	152	20.85	23.20	20.33	24.33	20.26	22.44	20.43	19.44	20.80		
(b) Small Grain												
(c) All Sizes	140	17.20	15.00	18.13	19.07	16.17	16.30	17.78	17.28	17.94		
(d) Field Beans	76	19.55	--	25.00	25.00	17.57	17.50	19.04	19.70	19.75		
(e) Alfalfa and Clover												
(a) All Sizes	15	19.95	--	20.00	--	19.33	17.50	21.00	21.00	23.00		
(b) All Sizes	9	20.00	--	17.50	--	26.00	--	22.00	21.67	18.00		
(c) All Sizes	32	14.50	13.50	17.50	15.00	12.75	12.38	15.80	13.40	15.20		
(14) Ear Corn Picker												
(15) Field Chopping-Corn Silage												
(a) Pull-Type	15	22.55	--	--	20.00	15.75	22.50	24.50	37.50	21.50		
(b) Self-Propelled	19	27.45	28.00	--	--	--	25.00	27.33	31.00	27.00		
(16) Field Chopping-Haylage												
(a) Pull-Type	9	19.00	--	--	20.00	25.00	14.00	15.00	25.00	24.00		
(b) Self-Propelled	13	20.80	24.50	--	--	--	16.50	17.50	19.00	25.75		
(17) Silo-Filling (including charges for field crop, fertilizer, blowing and or packing.)												
(a) Tower	14	26.60	23.87	24.67	--	24.67	--	35.00	40.00	30.00		
(b) Horizontal	7	31.30	24.00	--	--	15.00	42.50	27.50	40.00	--		
(18) Mowing												
(a) Mowing	16	5.35	--	7.50	--	5.00	--	5.00	5.00	5.67		
(b) Baling	23	2.90	3.00	--	5.50	2.63	2.00	2.25	2.67	3.67		
(c) Pull-Type												
(d) Self-Propelled	33	6.45	8.00	--	7.00	6.25	7.13	4.63	5.50	7.33		
(e) Tower Conditioner												
(f) Tower Conditioner	11	9.20	8.00	5.00	6.00	--	14.00	7.50	9.00	13.00		
(19) Harvest												
(a) Conventional Balers												
(1) Hay (twine) 50 lb.	57	.30	.33	.25	.233	.277	.34	.24	.35	.305	.28	
(2) Straw (twine) 40 lb.	45	.28	.30	.21	.225	.25	.32	.24	.317	.307	.27	
(3) Hauling Bales 40-55 lb.	17	.12	--	.05	.10	.15	.10	.075	.184	--	.08	

PART I, TABLE 1, CUSTOM RATES IN MICHIGAN, continued

	No. Reported	State Average	CROP REPORTING DISTRICT									
			1	2	3	4	5	6	7	8	9	
			Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
(24) Miscellaneous Custom Work			175	250	300	—	207	368	860	444	170	
(a) Accounting (bookkeeping)	21	\$486/year (\$/hr)	—	—	.15	.20	.10	.05	.194	.151	.168	
(b) Trucking	48	.16/du (55 miles)	—	—	(15)	(6)	(15)	(15)	(86)	(53)	(56)	
	21	.50/cwt (75 miles)	1.25	.50	.50	—	.29	.30	.10	.325	.27	
		(\$/head)	(145)	(125)	(100)	—	(51)	(35)	(5)	(88)	(37)	
(c) Sheep Shearing	9	1.35 (\$/hale)	1.50	—	1.25	1.00	—	—	1.00	1.50	1.50	
(d) Boxing Post Holes	12	.90 (\$/ft)	.42	—	.92	—	.25	.50	1.00	2.00	1.00	
(e) Filling	29	.22	—	—	.135	—	.19	.184	.373	.238	.198	
1. digging-trenching	24	.31 (\$/hour)	—	—	.22	—	.537	.198	.325	.322	.26	
2. plastic pipe—4.5"												
(f) Bulldozing	61	45.50 9' size average	33.86	40.00	25.00	20.00	46.16	52.00	48.50	48.33	50.00	
(g) Backhoe	38	33.20	35.00	40.00	30.00	—	30.25	26.85	34.00	32.50	41.14	
(h) Dragline (1.5 cu. yd)	5	47.20	—	60.00	—	—	—	46.00	—	42.00	—	
(i) Stone Picking	8	18.50	—	—	20.00	—	5.03	35.00	—	20.75	—	
(j) Rotary Tilling	11	12.05 (\$/cwt)	—	35.00	12.00	—	7.00	—	10.00	6.00	9.25	
(k) Grinding Feed	16	.305	.18	—	.317	—	.183	.25	.225	.30	—	
(l) Grinding, Mixing & Delivery in Local Area	33	.347 (\$/hour)	.25	—	.325	—	.20	.296	.28	.345	.28	
(m) Ruzing Wood	4	11.00	5.00	20.00	15.00	—	4.00	—	—	—	—	
(n) Chainsaw Work	11	10.18	5.00	6.00	15.00	10.00	4.50	—	14.00	12.00	15.00	
(o) Snow Plooding	43	28.45	20.40	28.83	25.00	36.25	26.25	15.00	27.36	30.50	38.75	
(p) Milking	33	4.80	7.25	5.33	5.00	4.38	4.12	5.73	4.30	4.67	4.10	

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 for ownership and operation can be determined:

OWNERSHIP COST per Unit (e.g., acre, bushel, ton, hour) using the DIRT 5:

1. Depreciation: $\frac{\text{Original cost-salvage value}}{\text{years of use}}$ \$ _____
 2. Interest: Interest rate x AIV^a \$ _____
 3. Repairs: Estimated 2 to 5% of original cost \$ _____
 4. Taxes: (are 0 in Michigan - no taxes on personal property used in agriculture) \$ _____
 5. Insurance: (estimated 0.5% for insurance premium) . . . \$ _____
- Total ownership cost annually \$ _____

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

OPERATING COST per unit (acre, hour, bushel, ton)

1. Tractor: Gas, diesel fuel, oil, and minor maintenance
Gal. gas per unit x price x 1.15^b \$ _____
 2. Machine: Gas, oil, maintenance
Gal. gas per unit x price x 1.15^b \$ _____
 3. Labor: Hours per unit x wage rate. If acres, bushels or tons, divide the wage rate by acres, bushels or tons per hour \$ _____
- B. 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.

^aAverage Investment Value (AIV) = (original cost basis + salvage value)/2

^bThe addition of 15% gasoline cost is for oil and minor maintenance.

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