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Rates for Custom Work in Michigan Michigan State University Extension Service Gerald D. Schwab, Department of Agriculture Economics Issued July 1980 8 pages

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Rates for Custom Work in Michigan

By Gerald D. Schwab Department of Agricultural Economics

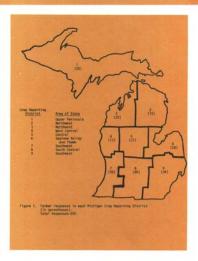
Custom hire of machine services may be viewed as an economically desirable alternative for many farmers. For farmers having a relatively small land base and/or limited labor availability, hiring-in of machine services enables these farmers to employ modern machine technology at a cost that may be lower 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 1979 from selected Michigan farmers. The usable responses numbered 292 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 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 par-

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

	CUSTOR	CUSTOM RATE SURVEY					CROP R	CROP REPORTING DISTRICT	DISTRICT			
				1 Average	2 Average	3 Average	4 Average	Average	Average	7 Average	8 Average	9 Average
·i	HIRED LABOR	No. Reported	State Average									
	(1) Part-time (\$/HR)	205	\$3.20	\$2.80	\$3.45	\$3.20	\$3.45	\$3.00	\$3.10	\$3.37	\$3.12	\$2.90
	(2) Full-time (\$/M0)	102	\$779.	700.	748.	943.	883.	736.	734.	798.	850.	650.
	(3) No. reporting full-time labor	labor		60	6	3	40	9	11	21	25	14
	(4) Percent that furnished full-time labor with:	ull-time labor	with:									
	House		50%	38%	562	33%	40%	831	45%	43%	298	50%
	N. N.	ï	38	52	44	30	50	888	45	14	488	43
	Medical Insurance Life Insurance		15	0 0	333	33	20	33	000	10	16	14
	Morker's Compensation		8	75	001	100	80	20	63	36	80	98
	Transportation Retirement Plan		24	,00	33	33 0	200	17	27	10 20	128	29
11.	CUSTOM FARMING RATE (Includes all machine and labor activities necessary to grow and harvest 1 acre.)	all machine an	Includes all machine and labor activities necessary to grow and harvest l acre.)									
	Crop	No. Reported	State Average									
	(1) Corn (\$/Acre)	46	\$ 63.70	\$76.85	59.25	30.00	67.50	00.09	99.50	53,15	54.45	72.50
	(2) Soybeans (\$/Acre)	19	63.50	1	1	1	1	1	95.75	00.09	59.85	37.50
	(3) Small Grains (\$/Acre)	35	40.90	49.40	48.35	18.50	40.00	40.00	42.00	41.00	34.10	57.50
	(4) Forage (\$/Acre)	16	74.50	40.80	1	:	1	1	87.35	73.50	82.00	50.00
H	EQUIPMENT RENTAL RATES											
	(1) Tractor Only (\$/Hr)											
	All sizes	22	\$ 17.50				40					
	Less than 120 hp			\$17.10	12.70	14.00	23.35	13.00	15.15	1	1	16.80
	121-140 hp			;	;	1	:	ŧ	;	17.20	16.00	19.35
	141-160 hp			;	}	;	;	:	;	;	25.00	:
	1 000			1	,	-		,	24 60			

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 1. CUSTOM RATES IN MICHIGAN, continued

		CUSTOM RATE SURVEY	RVEY				CROP	REPORTING	CROP REPORTING DISTRICT	_		
				Average	2 Average	3 Average	4 Average	5 Average	6 Average	Average	8 Average	9 Average
(2)	Plowing	No. Reported	State Average (\$/acre)									
	(a) Moldboard All sizes	107	\$ 9.35	\$ 9.00	\$10.95	\$9.50	\$11.35	\$8.25	\$ 9.85	\$7.70	\$ 9.55	\$ 10.25
	(b) Chisel All sizes	38	8.25	6.50	6.70	6.00	15.00	5.25	8.10	00.6	7.45	9.35
(3)	Disking All sizes	72	4.60	3.95	5.70	4.85	4.75	3,50	4.95	4.40	4.35	4.90
(4)	Harrowing (Dragging) All sizes	15	3.70	3.05	4.70	4.00	4.75	2.75	4.30	3.30	3.55	3.50
(5)	Cultipacking All sizes	25	2.90	8.00	2.00	2.00	1	2.50	2.80	3.15	2.40	3.15
(9)	Fertilizer Application Dry Bulk Liquid-Knifed in Liquid-Ground Spray Liquid-Aerial Spray Gas-Knifed in	n 57 16 34 30	2.40 2.50 4.05 3.85	3.00	3.00	2.50	3.50	2.50	2.20 3.90 2.60 5.20	2.00 4.00 5.00 2.50	2.45	2.70 3.00 2.85 3.50 2.35
13	(7) Planting Corn/Beans											
	(a) No Fertilizer All Sizes	32	5.80	5.00	3.50	4.35	1	4.50	10.00	4.50	5.05	5.65
	(b) With Fertilizer All Sizes	72	6.55	4.75	8.10	6.50	5.25	6.00	8.10	6.15	2.90	7.55
(3)	(8) Drilling (Small Grains and Forages)	38	4.80	3.00	6.50	4.00	1	4.00	5.80	5.25	3.70	5.20
6	(9) Planting Potatoes	2	13.25	12.50	1	ŧ	1	:	;	14.00	:	1
(01)	Planting Sugar Beets All Sizes	s	9.20	:	1	ı	1	1	9.90	1	1	6.50
Ê	Cultivating (a) Cultivator All Sizes	35	3.75	3.50	3.00	3.50	4.00	4.00	3.45	4.35	3.50	4.15
	(b) Rotary Hoe All Sizes	16	2.90	,	1	1	1)	3.40	3.15	2.30	2.45
(12)	(a) Corn All Sizes	167	16.00	18.85	16.80	16.65	13.60	15.00	16.60	16.75	15.10	15.30

CUSTOM RATE SURVEY	SURVEY						CROP	CROP REPORTING DISTRICT	G DISTRIC	-		
No. Re	No. Reported	State Average	16	Average	2 Average	3 Average	Average	Average	Average	7 Average	8 Average	9 Average
(b) Small Grain All Sizes	142	(\$/acre) \$12.70		\$12.90	\$12.00	\$11.90	\$14.70	\$12.00	\$11.55	\$13.35	\$12.60	\$13.35
(c) Soybeans All Sizes	72	14.65		:	12.00	. 1	16.50	15.00	14.00	15.40	14.65	14.30
(d) Field Beans All Sizes	16	15.15		- 1	1	19.00	. !	15.00	13.70	:	15.35	20.00
(e) Alfalfa and Clover All Sizes	7	15.00		:	3	10.00	;	1	12.50	20.00	15.00	20.00
(f) Ear Corn Picker	15	12.20		15.00	15.50	13.00	;	11.50	10.00	11 70	11 90	00
(13) Field Chopping-Corn Silage Pull-type (2 row)	24	24.25		25.00	22.50	19.00	- 1	:	35.00	25.00	24.15	24.15
(3 row)	16	32.10		25.00	25.00	.1	1	:	38.35	29.00	33.75	32.50
(14) Field Chopping-Haylage Pull-Type Self-Propelled	00 LO	22.00		18.00	25.00	1.1	11	11	20.00	20.00	20.00	27.50
(15) Silo-Filling charges for field chopping, handling, blowing and/or packing.)	-											
(a) Tower	21	(3/hour)		47.50	;				A7 E0	40 35	34. 36	00 00
(b) Harvested	=	52.75			1	;	;	:	47.50	40.00	65.00	20.00
(16) Haying		(\$/acre)										
(a) Mowing	16	3.35		2.50	3.50	2.50	1.50	1	10.00	3.25	3.20	2.75
(b) Raking	53	2.50		2.50	2.85	1.75	1.00	;	3.50	1.85	2.75	2.45
(c) Pull-Type (Mower-conditioner)	4	5.80		5.00	7.50	3.70	1	5.50	9.50	4.35	5.55	5.10
(d) Self-propelled (Mower conditioner)	14	6.10		3.50	1	5.00	;	;	8.65	5.00	5.35	5.50
(17) Hay Harvest		(\$/bale)										
(a) Conventional Balers (1) Hay (twine)	;			1								
(2) Straw (twine)	9	.24		.25	.21	.21	;	.25	.21	.27	.24	.26
30-35 lb (3) Hauling Bales	09	.23		.14	.20	.24	1	.25	.24	.25	.23	.26
40-55 Tb	13	60.		1	.10	.13	1	1	.04	:	.10	.10

(b) Big Bale Baler (1) Big Bale Baler (2) Street Northead States Average Avera		CUSTO	CUSTOM RATE SURVEY	WEY				CROP	CROP REPORTING DISTRICT	G DISTRIC	1		
(4) New Holland Bale (\$\frac{1}{2}\text{New Holland Bale} \tag{1.55} =		No.	Reported	State Average	Average	2 Average	3 Average	Average					9 Average
(2) Strew (1000 b) (2) Larry (1000 b) (3) Larry (1000 b) (4) Larry (10			4	(\$/bale)	4	,	.10	1	,	:	,	.30	.15
(2) Stream (1000-) (2) Maulina Dig bales 4 1.25	(p)	Bale	36	5.05	1	5.00	1.50		4.85	4.20	4.70	5.20	4.95
Secretarization Second S		(2) Straw (1000- 1500 lb) (3) Hauling big bales	13	5.30,	11	11	1.00	11	::	3.50	4.50	1.50	1.1
Statistication Stat	(c)	Mechanical Long Hay Stackers (1) Hay (3000 lbs)		00.8		1	18	1	1	1	1	8.00	1
Narvesting Stage Rees	8) Othe	tr Harvesting Work	12	(\$/acre)		4.00	3.50	- 1			3.00	3.75	3.50
Seet Cherries 3		Harvesting Potatoes Harvesting Sugar Beets Bean Windrowing	ന വര	39.00 39.40 7.00 (\$/1b)	: :	111	7.50				00.5		5.00
Manure Handling 12.50 10.00 7,00 16.00 16.90 Loading with tractor 20 12.55 10.00 7,00 16.00 16.90 Loading with tractor 21 12.55 10.00 7,00 16.00 16.90 Loading with tractor 22 17.00 12.50 10.00 7,00 16.00 16.90 Loading with tractor 13.00 12.50 10.00 7,00 16.00 16.90 Loading with tractor 13.00 12.50 10.00 7,00 17.75 15.55 17.00 12.50 10.00 12.50 10.00 18.11 and spreading 2 17.50 20.00 1 10.00 17.75 18.20 10.00 12.50 10.00 10.00 18.20 10.00 12.50 10.00 10.00 18.20 10.00 12.00 10.00 18.20 10.00 12.00 12.00 10.00 18.20 10.00 12.00 12.00 10.00 18.20 10.00 12.00 12.00 10.00 18.20 10.00 12.00 12.00 10.00 18.20 10.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00 18.20 10.00 12.00 1		Blueberries Tart cherries Sweet Cherries Grapes	3 7 2 8	0.00	1111	.05 .07 .07	80:111	90.11	1111	1111	.09	110.1	1111
Hauling and serial A.70 S.00 S.00 4.00 Hauling and serial 2 17.50 20.00 S.00 15.00 Hauling and winfing	(19) Manu	Yard Scraping Yard Scraping Loading with tractor Spreading and hauling	15 30 17	(\$/hour) 12.85 14.25 13.00	12.50 10.00 20.00	12.50	10.00	111	2000				2.60
Hiscellaneous Custom Nork (finiteding only the cost to finiteding only the cost to make the cost to the		Pump Rental Hauling and spreading on surface Hauling and knifing- In	E 2 -	4.70	20.00	1 1 1	1 1 1	1 1 1		5.00		4.00	1 1 1
so 2.70 2.50 3.25 2.75 1.00 3.40 2.90 3.10 3.10 2.50 2.55	(20) Misc (Inc for hire Boom	Lellaneous Custom Nork Luding only the cost machine and labor service is spraying (Material cost included)		(\$/acre)									
50 2.70 2.50 3.25 2.70 3.00 0.75 3.40 2.50 2.65	(a)	Insect and disease control	92	3.00	2.00	3.35	2.75	1	1.00	3.40	2.80		.50
	(P)	Weed control	90	2.70	2.50	3.25	2.70		0.75	3.40	2.50		.70

		CUSTOM RATE SURVEY	rer					CROP	REPORT IN	CROP REPORTING DISTRICT	_		
t (\$f\text{Acre}) 33 3.50 \$5.00 \$ \$1.90 \$3.30 \$ \$4.50 \$3.40 \$3.60 6 3.50 4.40 4.00 3.40 4.00 5.00 2.50 6 3.50 4.40 4.00 3.40 3.75 3.00 10 3.30 4.00 4.00 3.75 3.00 10 3.30 8.50 13.70 5.00 10 (\$\text{final}\$) 8.50 10 (\$\text{final}\$) 1.15 11 (\$\text{final}\$) 12 11 (\$\text{final}\$) 12 <td< th=""><th></th><th>No.</th><th>Reported</th><th>State Average</th><th>Average</th><th>Average</th><th>Average</th><th>4 Average</th><th>Average</th><th>6 Average</th><th>Average</th><th></th><th>Average</th></td<>		No.	Reported	State Average	Average	Average	Average	4 Average	Average	6 Average	Average		Average
3.50	199	Aerial spraying (Material cosnot included)	t,	(\$/acre)									
1.0 3.90 4.40 4.00 3.40 4.00 5.00 2.50 4 3.95 4.00 4.00 3.75 3.00 5 3.95 8.50 5.00 13.70 5.00 6 3.95 8.50 5.00 13.70 5.00 8 11 20 2.50 13.70 5.00 9 14 11 0.6 10 (\$\frac{1}{3}\mathbf{mi}\mathbf{e}\ma		Airplane-insects and disease	33	3.50	\$5.00	٤	\$3.90	\$ 3.30	1	\$4.50	\$3.40	\$3.60	\$3.05
6 3.50		Helicopter-insects and disease	10	3.90	1	4.40	4.00	3.40	- 1	4.00	5.00	2.50	4.00
4 3.35		(c) Airplane-weed and brush	9	3.50	1	1	4.00	4.00	.:	1	3.75	3.00	3.00
10		(d) Helicopter-weed & brush	4	3.95	;	3.50	4.15	4.00	:	;	;	1)
(5/bu) (5/bu) (1) (1) (1) (2) (1) (2) (1) (3/bu) (3) (4) (4) (4) (4) (4) (4) (4		Rotary mowing (weed & brush)	10	8.30		8.50	5.00	-	1	í	13.70	5.00	5.00
14092510	STEE	Shelling ear corn from crib (\$/bu)	00	(14/5) (11.	.20	1	1	;	:	;	.12	.08	
14 09 25 10	3.50	Drying Corn											
1519			14	60.	.25	.10	:	1	1	F.	90.	90.	.07
11 (5/m1e)	70	up to 10 points moisture removed	17	.14	:	.15	1	1	- (.16	.13	.15	.12
(3/mile)		up to 15 points moisture removed	15	91.	:	1	1	1	;	.23	.18	.24	.18
50 (1/8) (18) (20) (11) (20) (10) (21) (21) (21) (12 mile) (30) (11) (20) (40) (40) (71) (75) (12 mile) (120) (120) (40) (40) (71) (75) (13 mile) (120) (120) (100) (100) (100) (100) (13 mile) (120) (120) (100) (100) (100) (100) (13 mile) (120) (120) (100) (100) (100) (100) (13 mile) (120) (120) (100) (100) (100) (100) (100) (13 mile) (120) (120) (120) (120) (120) (120) <	2000	(d) more than 15 points moisture removed	11		;	:	;	1		1	.20	;	.26
(\$\frac{1}{4}\text{theology}{1.20} \text{1.50} \text{1.20} \text{1.20} \text{1.00} \text{1.00} \text{1.00} \text{1.00} \text{1.00} \text{1.10} \text{1.00} \text{1.20} 1	W-10		20	(3/mile) .18 (72 mile)	.10	(911)	(08)	.10	1.1	.16	(94)	(75)	(47)
(3/7001) (3/7004) .75 .40 .30 2.35 .75 1.20 (3/7004) 4.45 9 3.40 3.95 3.95 3 4.45 5.15 3.00 6 2.35 2.50 4.00 5.00 2.00 7 4.30 4.30 5.00 4.35			12	(\$/head)	1.50	1.20	1.00	:		5.00	ı	1.05	1.00
9 3.85 9 3.40 3 4.45 6 2.35 7 4.30 13 10 10 10			13	1.00	.75	.40	.30	:	:	2.35	.75	1.20	.90
9 3.85 2.66 5.50 4.45 3 4.45 2.75 3.95 3.95 6 2.35 5.15 3.00 7 4.30 2.50 3.00 2.00 2.00 7 4.30 3.00 4.00 5.00 4.35		Tiling		(\$/ rod)									
9 3.40 2.75 3.95 3.95 3 4.45 5.15 3.00 6 2.35 2.50 3.00 2.00 2.00 7 4.30 3.00 4.00 5.00 4.35	100		6	3.85	1	1	1	1	;	2.60	5.50	4.45	2.2
3 4.45 5.15 3.00 6 2.35 2.50 3.00 2.00 2.00 7 4.30 3.00 4.00 5.00 4.35		-	6	3.40	:	:	1	;	:	2.75	3.95	3.95	2.95
6 2.35 2.50 3.00 2.00 2.00 7 4.30 3.00 5.00 4.35		(c) clay tile	m	4.45	:	1	;	:	:	1	5.15	3,00	1
6 2.35 2.50 3.00 2.00 2.00 2.00 7.00 7.00 7.00 4.35	44	Building fence (materials not included)											
7 4.30 4.00 5.00 4.35		(a) Barb wire	9	2.35	1	1	2.50	:	:	3.00	2.00	2.00	2.50
		(b) Noven wire	7	4.30	;	;	3.00	;	:	4.00	9.00	4.35	5.00

CUSTI	CUSTOM RATE SURVEY					5	CROP REPORTING DISTRICT	TAG DIST	RICT			
	No. Reported	State Average	Average	ge Average	3 Average A	e Avera	Average Average	ge Aver	age Ave	7 8 Average Average	8 verage	9 Average
Bulldozing 9' size average	82	(\$/hour) 34.00	\$29.70	\$34.50	\$22.50	\$37.40	5	\$32.65	\$31.85	\$37.05		\$31.90
Backhoe	63	25.55	23.40	33.35	18.35	25.00	25.00	25.80	24.80	25.60		27.75
Dragline (1/2 cu. yd)	10	39.30	35.00	;	1	;	;	39.50	50.00	35.00		40.00
Stone picking	14	14.90	10.00	1	12.50	;	;	27.50	5.45	15.00	00	:
Chainsaw work	16	11.60	6.50	7.00	5.00	:	10.00	9.50	9.50	5.00		22.00
Snow plowing	90	25.15	22.50	25.35	15.00	40.00	20.00	16.60	30.55	23,70		28.75
Milking	62	00.90	5.75	5.00	5.00	;	;	5.50	5.75	5.85	92	9.25
Grinding and Mixing Feed	ed 43	(3/5%)	.23	.20	.28	.25	.10	.33	.23	.,	.21	.31
Accounting (bookkeeping)	34	(3/year) 493.	138.	800.	350.	;	;	1120	364	290		270

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:

Α.	Ownership cost per unit (acre, bushel, ton, hour)			
	Depreciation: Original cost-salvage value estimated life	s		
	Interest: Interest rate \times original cost $+ 2 \dots$	1		
	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)	s
B.	Operating cost per unit (acre, hour, bushel, ton)			
	Tractor: Gas, diesel fuel, oil, and minor maintenance			
	Gal. gas per unit × price × 1.15*	-		
	Machine: Gas, oil, maintenance			
	Gal. gas per unit × price × 15*			
	Labor: Hours per unit × wage rate, If acres, bushels or tons, divide the wage rate by acres, bushesl or tons per hour			
	Total operating cost per unit		(B)	s
C.	Total ownership and operating $cost(A+B)$ per unit			s
D.	Custom rate (per acre, hour, bushel, or ton) Total ownership and operating cost may be adjusted because of bargaining power, or risk.			\$
-	The state of the s			

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