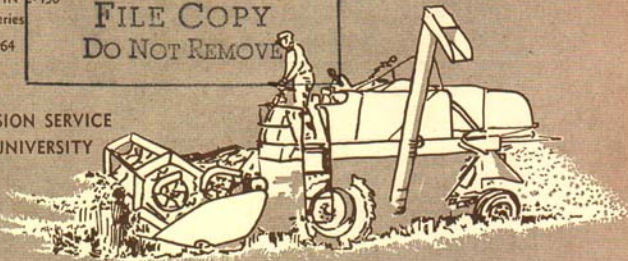


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RATES FOR CUSTOM WORK IN MICHIGAN

By W. A. Tinsley

Dept. of Agricultural Economics

FARMERS WHO HIRE or do custom work face the problem of determining a charge for the services. To help them, this pamphlet presents a summary of custom rates in common use in Michigan in 1964.

These rates are not set forth as those which *should* be charged. These are rates reported by a panel of 250 Michigan farmers who hire or do custom work.

Rates may vary in the same area because of differences in the size and type of equipment, distance to the job, quantity of materials furnished and services performed. However, the reported rates do help in establishing charges.

Often farmers have to determine custom rates for new or unusual custom jobs when there are no prevailing market rates for these operations. A second section of this folder contains some guidelines for figuring such rates.

A big question most farmers face is whether machinery should be owned or custom hired. A third section of this folder suggests means of analyzing which is the more profitable alternative.

PART I — CURRENT CUSTOM RATES

Prevailing Rates

Tables 1 and 2 contain both the range of rates for a number of Michigan custom operations and the most common rate or rates reported. More than one most common rate is reported in cases where there were ties in the most popular rate.

Machinery Rentals

Only a few farmers reported renting machinery. Therefore the machinery rental rates in Table 3 are shown as guides only, rather than as established rates.

Area Rate Differences

Most of the reports for large equipment come from southern Michigan and are more representative of this area than of others. Reports on smaller equipment were more numerous from the southern part of the Lower Peninsula and the Upper Peninsula. Rates in this area were often reported on an hourly basis. Hourly rates are a better basis of payment for custom work in northern Michigan.

TABLE 1.—Rates for Custom Work in Michigan—1964
(Charges include machine, tractor, and operator or usual crew.)

Custom Job and Equipment	Acre Rates		Hourly Rates	
	Usual range	Most common rate or rates	Usual range	Most common rate or rates
CHOPPING HAY AND SILAGE				
Pull type chopper and blower with:				
1 man, 1 tractor, 2 wagons			\$ 8.00-13.00	\$10.00
2 men, 2 tractors, 2-3 wagons			10.00-15.00	14.00
Self propelled chopper				Varies with size crew
2 men, 2 tractors, 3 wagons			17.50-30.00	
SILO FILLING*				
10 foot silo	\$ 1.50- 4.00	\$ 3.00		
12 foot silo	2.50- 5.00	3.00		
14 foot silo	3.50- 5.50	4.50		
20 foot silo	8.00-12.00	10.00		
COMBINING				
Small grain				
5- 7 foot	5.00- 7.00	5.00-6.00	5.00- 7.50	6.00- 7.00
8-12 foot	4.50- 8.00	5.00-6.00	10.00-16.00	12.00
10-14 foot	5.00- 7.50	6.00	10.00-18.00	14.00
Field beans	5.00- 8.50	7.00-8.00	7.00-10.00	9.00
Soybeans	5.00- 7.50	6.00	5.00- 9.00	7.00- 9.00
Alfalfa and clover seed	5.00-12.00	6.00	7.00- 8.00	7.00
PICKING CORN				
1 row picker	5.00-10.00	5.00-6.00	5.00- 8.00	6.00
2 row picker	5.00- 9.00	6.00	7.00-10.00	7.00- 8.00
Picker sheller	5.00-10.00	7.00-8.00 ^b	8.00-11.00	9.00-10.00
OTHER HARVESTING WORK				
Roto beating potatoes	2.00- 5.00	3.00		
Digging potatoes	6.00-10.00	6.00		
Swathing grain	1.50- 2.50	1.50-2.50		
HAYING				
Mowing	1.00- 3.00	1.50	2.00- 5.00	4.00
Conditioning, or crimping .....	.50- 3.50	1.00-1.50	3.00- 5.00	3.50- 4.50
Raking, side delivery	1.00- 2.50	1.00	2.00- 5.00	4.00
Self propelled swather	4.00	4.00		
(12' with conditioner)				
FIELD BALING				
Automatic baler	Rate per bale dropped on ground ^c			
Hay (twine) .....	.07- .14	.10	6.00	6.00
(wire) .....	.12- .17	.12- .14	6.00- 7.00	6.00- 7.00
Straw (twine) .....	.08- .14	.10	6.00	6.00
(wire) .....	.10- .16	.12- .14	6.00- 6.50	6.00- 6.50
Hauling bales to barn .....	.05- .12	.05		

*Some charge \$1.25 to \$2.00 per ton of silo capacity.

^bMany mentioned 45¢ per acre plus 5¢ per bushel.

^cMany reported 1¢ more when a wagon was pulled behind the baler.

TABLE 1.—Continued
(Charges include machine, tractor, and operator or usual crew.)

Custom Job and Equipment	Acre Rates		Hourly Rates	
	Usual range	Most common rate or rates	Usual range	Most common rate or rates
PLOWING				
2-bottom	\$ 3.00- 7.50	\$ 5.00	\$ 3.00- 7.00	\$ 4.00
3-bottom	3.00- 7.50	5.00	3.00- 7.00	5.00
4-bottom	3.00- 7.50	5.00	5.00- 8.00	6.00
5-bottom	3.00- 7.50	5.00	4.50- 8.50	6.00- 7.00
DISKING				
7-foot	1.50- 2.50	1.50- 2.00	3.00- 6.50	5.00
8-foot .....	.50- 3.00	2.00	3.00- 6.50	5.00
10-foot	1.00- 3.50	1.50	3.00- 6.50	6.00
DRAGGING				
2-section	1.00- 2.50	1.00	3.00- 5.00	5.00
3-section	1.00- 2.50	1.00	3.00- 5.00	4.00
4-section .....	.50- 2.50	1.00	3.00- 5.50	5.00
PACKING				
Cultipacker .....	.50- 3.00	1.50	3.00- 5.50	4.00
MANURE HANDLING				
Loading with tractor			2.00- 5.50	4.00
Spreading			2.50- 6.50	4.00
DRILLING (Small grain and beans)				
With fertilizer	1.50- 3.50	2.00	2.50- 6.00	4.00- 6.00
Without fertilizer	1.00- 2.50	1.50	3.00- 6.00	4.00- 5.00
Band seeding	1.00- 3.00	2.00	4.00- 6.00	4.00
PLANTING SUGAR BEETS				
	2.50- 5.00	3.00		
PLANTING CORN (without fertilizer)				
2-row planter	1.00- 3.50	2.00	2.00- 5.00	4.00
4-row planter	1.00- 3.50	2.00	4.00- 5.50	5.00
PLANTING POTATOES				
	5.00- 7.00	5.00		
CULTIVATING				
2-row cultivator	1.00- 3.50	1.50	2.50- 5.00	3.00
4-row cultivator	1.00- 3.50	1.50	4.00- 5.00	5.00
4-row rotary hoe .....	.50- 3.50	1.00	4.00- 5.00	4.50

Errata - Rates for Custom Work in Michigan, Extension Bulletin, E-458.

Table 1, the silo filling rate should be identified as "rate per foot of silo" rather than as an acre rate.

TABLE 2 — Rates for Miscellaneous Custom Work

(Includes machine and operator or usual crew.)

CUSTOM JOB	Basis of charge	Usual range	Most common rate or rates
Spraying (no materials)			
Row crops	hour	\$2.00- 6.00	\$4.00
Orchard	acre	1.00- 5.00	1.50
Weeds	hour	4.00- 7.00	6.00
Bulldozing	acre	.50- 4.00	1.00
7' blade	hour	8.00-18.00	10.00-12.00
10' blade			14.00-15.00
12' blade			18.00
Tiling	rod	.75- 2.50	1.00- 1.25
Buzzing wood	hour	2.50- 5.50	3.50- 4.00
Chain-saw work	hour	2.00- 5.50	3.00- 4.00
Trucking	hour	2.00- 6.00	5.00
	mile	.15- .25	.20- .25
Grinding feed	cwt.	.10- .20	.10- .15
Tree planting	thousand	10.00-14.00	10.00
Boring post holes	hole	.10- .20	.15
	hour	3.00- 6.00	5.00
Plowing snow	hour	4.00- 8.00	5.00
Brush chopping— orchards	hour	4.00-10.00	6.00-10.00
Bulk spreading— fertilizer	acre	.50- 4.00	1.00
	ton	1.00- 4.50	2.00
Applying anhydrous ammonia	acre	.50- 4.00	1.50- 2.00
Dusting potatoes	acre	1.00- 2.00	1.00- 2.00
Shelling corn	bushel	.04- .12	.05
	hour	5.00- 6.50	5.00- 6.50
Drying corn*	bushel	.04- .13	.10
Sheep shearing	head	.50- .70	.50
Aerial seeding	acre	.75- 2.25	1.25- 1.50
Aerial spraying (no materials)			
Insects	acre	1.50- 2.00	1.50- 2.00
Weeds	acre	1.00- 2.00	1.00- 2.00
Brush	acre	1.50- 2.50	2.00
Backhoe	hour	6.00-13.00	8.00
Dragline— ½ cu. yd.	hour		12.00

*Most base rates on percentage of moisture. One basis for a charge was 1c for each 1% of moisture above 15%.

TABLE 3 — Machinery Rental Rates
 (Charges shown as guides rather than as established rates.)

Machine	Basis of charge	Expected rate
Small tractor without operator	hour	\$1.75
Large tractor without operator	hour	3.00
Truck, 1 ton or smaller	hour	2.25
Truck, 1½ ton or larger	hour	3.25
Grain drill	acre	1.00
Fertilizer spreader (pull type)	acre	.50
Corn planter	acre	1.50
Potato planter	acre	2.00
Tree planter	thousand	3.00
Sprayer	acre	.50

Part II — How to figure custom rates ^x ^x

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 \times original cost \div 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 \div estimated annual use (bu, acre, ton, hour) (A) \$ _____

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

Tractor: Gas, oil, repair
Gal. gas per unit \times price \times 1.10† _____

Machine: Gas, oil, maintenance
Gal. gas per unit \times price \times 1.10† _____

Labor: Hours per unit \times 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 plus B) per unit \$ _____

D. Custom rate (per acre, hour, bushel, or ton) \$ _____

Total ownership and Operating cost adjusted for tradition, bargaining power, or risk.

*Interest on declining balance basis.

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

**Source: T. R. Nodland and H. G. Routh, Extension Pamphlet 134, University of Minnesota, June 1961.

Part III — Farm machinery — should you own it? ^x ^x

To decide if you should own a machine, compare the custom rate with the ownership and operating cost of the machine on your farm. Use the following worksheet to determine cost of ownership and operating the machine. Compare this cost with the custom rate in your area.

1. Determination 1—What will be the annual cost of owning and operating this machine?

Ownership Cost

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

Interest: Interest rate \times original cost \div 2* _____

Repairs: Estimated 2 to 5% of cost _____

Taxes and Insurance: Estimated 1 to 2% of cost _____

Total ownership cost annually: (A) \$ _____

Ownership cost per unit: Total ownership cost \div estimated annual use
(bu., acre, ton, hour) (B) \$ _____

Operating Cost per Unit

Tractor: Gas, oil, repair

Gal. gas per unit \times price \times 1.10† _____

Machine: Gas, oil, maintenance

Gal. gas per unit \times price \times 1.10† _____

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

Total operating cost per unit (C) \$ _____

Total ownership and operating cost per unit (B + C) (D) \$ _____

2. Determination 2—Will it cost more to own it than to hire it done?

Custom rate (see tables 1 and 2) (E) \$ _____

If ownership and operating cost exceed the custom rate, purchase is not desirable unless loss of production and timeliness of operation are an important factor. One should also consider alternative uses for capital and labor in another part of the farm business.

3. Determination 3—What acreage (or number of other units) is necessary to justify purchase of this machine?

Total ownership cost (A _____) = _____ acreage (or number of other units)
Custom rate—operating cost (E - C = _____) needed to justify ownership.

Note: Other factors that might help justify a purchase are:

- 1) Possible losses due to untimeliness,
- 2) Possibility of doing custom work.

Other factors that might be unfavorable toward purchase are:

- 1) Better alternative use of capital.
- 2) Alternative value of tractor and labor saved if custom work is hired.
- 3) Possible to do job with smaller machine.

*Interest on declining balance basis.

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

**Source: T. B. Nolland and H. G. Rothe, Extension Pamphlet 134, University of Minnesota, June 1961.