

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 Michiean.

These rates are not set forth as those which should be charged. These are rates reported by a panel of 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 1 - 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.

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TABLE 1. - Rates for Custom Work in Michigan

(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 2 men, 2 tractors, 23 wagons Self propelled chopper 2 men, 2 tractors, 3 wagons	\$ 4.00-16.00 4.00-16.00	\$12.00 14,00-16,00	\$ 9.00-13.50 12.00-17.00 17.50-30.00	\$10.00 14.00 Varies with size crew
ON O. PHILING.	Rate Per	Foot Filled		
SILO FILLING 10 foot silo 12 foot silo 14 foot silo 20 foot silo	1.00- 6.00 3.00- 5.00 3.50- 5.00 10.00-12.00	2.00-2.50-3.00 3.00 4.00- 5.00 10.00		
COMBINING Small grain 5-7 foot 8-12 foot 10-14 foot Field beans Bean Pulling Soybeans Alfalfa and clover seed	5.00- 7.50 5.00- 8.00 5.00- 8.50 6.00- 8.50 1.50- 4.00 5.00- 8.00 5.00-15.00	6.00 6.00 6.00 7.00 2.00 6.00 6.00	5.00- 7.50 12.00-16.00 12.00-20.00 6.00-14.00 6.00- 6.50- 7.50	6.00- 7.00 12.00 12.00 9.00 5.00 11.00 7.50
PICKING CORN Conventional picker (no shelling) Picking and shelling corn per bushel	5.00-10.00	6.00		
Picking and shelling corn per acre	5.00-12.00	8.00		
Picking and shelling with a flat charge per acre	5.00-10.00 .0206	5.00		
OTHER HARVESTING WORK Roto beating potatoes Digging potatoes Swathing grain Stalk shredding Harvesting sugar beets	3.00- 4.00 6.00- 1.50- 3.50 1.00- 4.00 20.00-25.00	4.00 6.00 2.50 2.00 20.00	4.00- 7.00	5.00
HAYING Mowing Conditioning, or crimping Raking, side delivery Self propelled swather (12' with conditioner)	1.00- 4.00 .50- 3.50 .50- 3.50 4.00	1.50 1.50 1.50 4.00	3.00- 7.00 3.00- 5.00 3.00- 5.00	5.00 5.00 5.00
Mowing and conditioning	2.00- 4.50	2.50		

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
FIELD BALING Automatic baler		r bale dropped ground		
Hay (twine) (wire) Straw (twine) (wire) Hauling bales to barn Charge for bale thrower & wagon Charge per bale for pulling a wagon	\$.0814 .1020 .0814 .1020 .0510 .0104 .0103	\$.10 .15 .10 .14 .10 .02 .01	\$ 5.00 · 7.00 5.00 · 7.00 6.00 · 7.00 4.50 · 7.00 1.00 · 1.50	
PLOWING 3-bottom 4-bottom 5-bottom	3.00- 7.00 3.00- 7.00 3.00- 7.50	5.00 5.00 5.00	3.50- 7.50 5.00- 9.00 6.00-10.50	\$ 5.00- 7.00 8.00 8.00
DISKING 8-foot 10-foot	1.00- 3.50 1.00- 3.00	2.00 2.00	3.50- 7.00 4.00- 8.50	5.00 5.00 6.50
DRAGGING 2-section 3-section 4-section	1.00- 2.50 1.00- 2.50 .50- 3.00	1.50 1.50 1.00	3.00- 5.00 3.50- 5.50 3.50- 6.50	3,00 4,00 5,00
PACKING Cultipacker	.50- 2.50	1.00	3.00- 8.00	3.00-4.00-5.0
MANURE HANDLING Loading with tractor Spreading			2.00- 7.50 2.50- 7.00	5.00 4.00
DRILLING (Small grain and beans) With fertilizer Without fertilizer Band seeding	1.50- 3.50 .50- 3.00 1.00- 3.00	2.00 2.00 2.00- 2.50	2.50- 6.00 3.00- 6.00 3.00- 6.00	6.00 3.00-4.50-5.00 4.50
PLANTING SUGAR BEETS	2.00- 5.00	3.00		
PLANTING CORN 2-row planter without fertilizer 4-row planter without	1.50- 3.50	2.00	3,50- 5.00	3.50- 5.00
fertilizer 4-row planter applying fertilizer & chemicals	1.00- 4.00	2.00	5.00- 6.50	5.00
6-row planter without fertilizer	1.50- 4.00	2.50	5.00- 6.50 5.00- 7.50	5.50
6-row planter applying fertilizer & chemicals	2.00- 4.00	3.00	5.50- 7.50	6.50
PLANTING POTATOES (2 row planter)	5.00- 7.50	6.00		
CULTIVATING 2-row cultivator 4-row cultivator 4-row rotary hoe	1.00- 3.00 1.00- 3.50 .50- 3.00	2.00 2.00 1.00	3.00- 5.00 4.00- 5.00 3.00- 5.00	3.00 5.00 5.00

TABLE 2 - Rates for Miscellaneous Custom Work

(Includes machine and operator or usual crew.)

Spraying (no materials) Row crops hour \$ 2.00-6.00 \$ 6.00 acre 1.00-5.00 1.50 Meeds acre 1.00-0.3.50 1.50 Meeds acre 1.00-0.3.50 1.50 Meeds acre 1.00-0.3.50 1.50 Meeds acre 1.00-0.3.50 1.50 Meeds acre 1.00-0.3.00 1.50 Meeds acre 1.00-0.3.00 1.50 Meeds 1.50 1.50 1.50 Meeds 1.50 1.50 1.50 Meeds 1.50 1.50 1.50 Meeds 1.50 1.50 1.50 1.50 Meeds 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.5	CUSTOM JOB	Basis of charge	Usual range	Most Common rate or rates
(no materials) Row crops hour \$2,00 - 6,00 1,50 Weeds acre 1,00 - 5,00 1,50 Weeds acre 1,00 - 3,50 1,50 Weeds acre 1,00 - 3,50 1,50 Useds acre 1,00 - 3,50 1,50 Useds acre 1,00 - 3,50 1,50 Useds acre 1,00 - 20,00 15,00 Useds 10,00 - 20,00 15,00 Useds 10,00 - 20,00 15,00 Useds 12,00 - 3,00 2,00 Useds 10,00 - 2,25 1,25 Useds 10,00 - 2,00 3,50 Useds 10,00 - 3,00 Useds				
Row crops	Spraying			
Orchard hour 4.00 - 6.50 Weeds acre 1.00 - 3.50 hour 7 blade 10 blade 12 blade 12 blade 12 blade 13 blazzing wood hour 2.50 - 6.50 surface planting thousand Boring post holes hour 2.50 - 6.50 hour 3.50 hour 4.00 - 7.00 hour 4.00 - 7.00 hour 4.00 - 7.00 hour 5.00 - 7.00 hour 6.00 - 7.00 hour 5.00 hour 5.00 - 7.00 hour 5.00 hour 5.00 hour 5.00 hour 5.00 hour 5.00 hour 5.00 hour 5	(no materials)		Laurence Control	
Orchard Weeds hour Acree 4,00-6,50 acree 1,50 Bulldoeing hour 1,00-3,50 acree 1,00 7° blade 10,00-18,00 acree 10,00 10,00 10° blade 10,00-20,00 acree 15,00 20,00 Tiling rod 10,02-20,00 acree 2,00 Buzzing wood hour 1,00-20,00 acree 5,00 Trucking hour 2,00-6,50 acree 5,00 Trucking hour 2,00-6,50 acree 5,00 Grinding feed cwt. 10-20 acree 15 Grinding feed cwt. 10-20 acree 15 Boring post holes hour 4,00-10,00 acree 5,00 Brush chopping-orchards hour 4,00-10,00 acree 5,00 Bulk spreading-fertilizer acre 5,00-10,00 acree 7,00 Applying anhydrous ammonia acre 5,00-2,00 acree 2,00 Apriling corn bushel 0,5-10 acree 0,05-10 acree Drying corna* bushel 0,5-20 acree 1,00-20 a	Row crops	hour	\$ 2.00- 6.00	
Weeds acre hour 1.00-3.50 1.50 Bulldozing 10 blade 10.00-18.00 10.00 12 blade 12.00-30.00 20.00 12 blade 12.00-30.00 20.00 Tiling rod 1.00-2.25 1.25 Buzzing wood hour 3.00-8.00 5.00 Chain-saw work hour 2.00-6.50 5.00 Trucking hour 2.00-6.50 5.00 Tree planting thousand 9.00-16.00 10.00 Boring post holes hour 4.00-7.00 5.00 Plowing snow hour 4.00-7.00 5.00 Brush chopping—orchards hour 5.00-10.00 7.00 Bulk spreading—fertilizer acre 5.0-5.00 1.00 Applying anhydrous ammonia acre 5.0-5.00 1.00 Apring corn* bushel .05-10 0 Drying corn* bushel .05-10 0 hour 5.0-2.00 2.00 Drying corn*		acre		1.50
Bulldozing		hour	4.00- 6.50	
7 blade 10,00-18,00 10,00 10 blade 10,00-20,00 15,00 12 blade 10,00-20,00 15,00 12 blade 10,00-20,00 15,00 12 blade 10,00-20,00 15,00 10		acre	1.00- 3.50	1,50
10 blade		hour	100000000000000000000000000000000000000	
12 blade 12,00-30,00 20,00			10.00-18.00	
Tiling			10.00-20.00	15.00
Buzzing wood Chain-saw work Trucking hour 2.50 - 6.00 3.50 5.00	12' blade	1	12.00-30.00	20.00
Chain-saw work in Trucking hour 2,50 - 6,00 3,50 Trucking hour 2,00 - 6,50 5,00 Grinding feed cwt 15 - 25 25 Crinding post holes thousand 9,00-16,00 10,00 Boring post holes hour 4,00 - 7,00 5,00 Brush chopping orchards hour 5,00 - 10,00 7,00 Bulk spreading marhydrous acre 5,0 - 5,00 1,00 Applying anhydrous acre 5,0 - 5,00 1,00 Applying corn's bushel 0,5 - 5,00 1,00 Drying corn's bushel 0,5 - 1,0 0 Aerial seeding acre 5,0 - 2,00 2,00 Aerial seeding acre 7,5 - 2,50 1,50 Aerial spraying (no materials) acre 7,5 - 2,50 1,50 Insects acre 5,0 - 2,00 2,00 Brush acre 5,0 - 2,00 2,00 Backhoe bush 0,0 - 7,00 1,50 Aerial seeding	Tiling	rod	1.00- 2.25	
Trucking	Buzzing wood	hour	3.00- 8.00	
mile 1.5 2.5	Chain-saw work .	hour	2.50- 6.00	3.50
Grinding feed cwt. 10- 20 1.5 Tree planting thousand 9.00-16.00 10.00 Boring post holes hour 4.00- 7.00 5.00 Brush chopping orchards hour 5.00-10.00 7.00 Bulk spreading fertilizer acre 50- 5.00 1.00 Applying anhydrous ammonia acre 50- 5.00 1.50 Dusting potatoes bour 6.00- 7.00 Bulk approached cre 50- 5.00 1.00 Drying corn bushel 50- 5.00 1.50 Drying corn bushel 50- 1.00 0.50 Drying corn bushel 50- 1.00 0.50 Aerial seeding acre 50- 5.00 1.50 Drying corn bushel 50- 1.00 0.50 Aerial seeding acre 50- 5.00 1.50 Drying corn bushel 50- 1.00 0.50 Backhoe cre 50- 5.00 1.50 Drying corn bushel 50- 1.00 0.50 Brush acre 50- 2.00 2.00 Dragline—	Trucking	hour		5.00
Tree planting thousand 9,00-16,00 10,00 Boring post holes hole 10-20 1,500 Brush chopping orchards bour shill be		mile	.1525	.25
Boring post holes hole hour 4.00-7.00 5.00 5.00 control fertilizer hour 5.00-10.00 7.00 bushel hour hour 5.00-10.00 robards roba	Grinding feed	cwt.	.1020	
Plowing snow hour 4,00 - 7,00 5,00 hour 4,00 - 11,00 5,00 hour 4,00 - 11,00 5,00 hour 5,00 - 10,00 hour 5,00 - 10,00 hour 5,00 - 10,00 hour 6,00 - 7,00 hour 7,50 - 2,50 1,50 head 4,00 - 8,00 1,50 hour 5,00 - 1,00 1,50 hour 5	Tree planting	thousand	9.00-16.00	10.00
Plowing snow hour 4.00-11.00 5.00 Brush chopping hour 5.00-10.00 7.00 Bulk spreading fertilizer acre .50 - 5.00 1.00 ton 1.00 - 4.00 2.00 Applying anhydrous ammonia acre .50 - 5.00 1.50 Dusting potatoes hour 6.00 - 7.00 Drying corn* bushel .05 - 1.1 .05 hour 6.00 - 7.00 Drying corn* bushel .04 - 1.4 .10 Sheep shearing head .4080 .50 .40 .50 Aerial spraying (no materials) Insects acre .50 - 2.00 2.00 Brush acre .50 - 2.00 2.00 Dragline—	Boring post holes.	hole		
Brush chopping or chards		hour	4.00- 7.00	
Bulk spreading fertilizer acre acre .50- 5.00 1.00 1.00 4.00 2.00 2.00 2.00 2.00 2.00 2.00 2	Brush chopping -	hour		
Applying anhydrous ammonia acre .50- 5.00 1.50 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2		hour	5.00-10.00	7.00
Applying anhydrous ammonia acre 5.0 - 5.00 1.50 Dusting potatoes acre 5.0 - 2.00 2.00 Drying corn* bushel 0.5 - 1.0 0.5 hour 6.00 - 7.00 Drying corn* bushel 0.4 - 1.4 - 1.0 Sheep shearing head 4.0 - 8.0 5.0 Aerial seeding acre 7.5 - 2.50 1.50 Aerial spraying (no materials) Insects acre 1.00 - 2.50 1.75 Weeds acre 5.0 - 2.00 2.00 Brush acre 5.0 - 2.00 2.00 Backhoe hour 7.00-13.00 10.00	fertilizer	acre	.50- 5.00	1.00
anhydrous ammonia acre .50 - 5.00 1.50 Dusting potatoes acre .50 - 2.00 2.00 Shelling corn bushel .05 .10 .05 hour 6.00 - 7.00 Drying corn bushel .04 .14 .10 Sheep shearing head .40 .80 .50 Acrial seeding acre .75 2.50 1.50 Acrial spraying (no materials) Insects acre .00 2.50 1.75 Weeds acre .50 2.00 2.00 Brush acre .50 2.50 2.00 Backhoe hour 7.00 13.00 Dragline—		ton	1.00- 4.00	2.00
Dusting potatoes acre 5.0 - 2.00 2.00 Shelling corn bushel 0.5 - 1.0 0.5 Drying corn bushel 0.4 - 1.4 1.0 Sheep shearing head 4.0 - 8.0 5.0 Aerial seeding acre 7.5 - 2.50 1.50 Aerial spraying (no materials) Insects acre 1.00 - 2.50 1.75 Weeds acre 5.0 - 2.00 2.00 Brush acre 5.0 - 2.50 2.00 Backhoe bour 7.00-13.00 10.00				
Shelling corn bushel hour hour .05 · .10 .05 hour Drying corna bushel Sheep shearing Laring (no materials) Insects acre .04 · .14 · .10 hour .50 head head hour .50 head head head head head head head head	ammonia	acre		
Drying corn* hour 6.00-7.00	Dusting potatoes.	acre		
Drying corn* bushel .04	Shelling corn	bushel		.05
Sheep shearing head .40 · .80 .50 Aerial seeding acre .75 · 2.50 1.50 Aerial spraying (no materials) 1nsects acre 1.00 · 2.50 1.75 Weeds acre 50 · 2.00 2.00 2.00 Brush acre .50 · 2.50 2.00 Backhoe hour 7.00-13.00 10.00		hour		
Aerial seeding acre .75 · 2.50 1.50 Aerial spraying (no materials) 1.50 1.75 Insects acre 1.00 · 2.50 1.75 Weeds acre 50 · 2.00 2.00 Brush acre .50 · 2.50 2.00 Backhoe hour 7.00-13.00 10.00	Drying corna	bushel		
Aerial spraying (no materials) 1.00- 2.50 1.75 Insects acre 1.00- 2.50 1.75 Weeds acre .50- 2.00 2.00 Brush acre .50- 2.50 2.00 Backhoe hour 7.00-13.00 10.00 Dragline—	Sheep shearing	head		
(no materials) Insects	Aerial seeding	acre	.75- 2.50	1.50
Insects acre 1.00 - 2.50 1.75 Weeds acre .50 - 2.00 2.00 Brush acre .50 - 2.50 2.00 Backhoe hour 7.00-13.00 10.00 Dragline—	Aerial spraying			
Weeds acre .50- 2.00 2.00 Brush acre .50- 2.50 2.00 Backhoe hour 7.00-13.00 10.00 Dragline-	(no materials)			
Brush acre .50 2.50 2.00 Backhoe hour 7.00-13.00 10.00 Dragline—		acre		
Backhoe hour 7.00-13.00 10.00 Dragline—		acre		
Dragline—	Brush			
½ cu. yd hour 12.00	Dragline—	hour	7.00-13.00	
	½ cu. yd	hour		12.00

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

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)		
	Deprectation: Original cost—salvage value estimated life	8	
	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 (bu., acre, ton, hour)		(A) \$
В.	Operating cost per unit (acre, hour, bushel, ton)		
	Tractor: Gas, oil, repair		
	Gal. gas per unit × price × 1.10†	(
	Machine: Gas, oil, maintenance		
	Gal. gas per unit × price × 1.10†		
	Labor: Hours per unit X 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		1
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. Routhe, Extension Pamphlet 134, University of Minnesota, June 1961.

Part III - Farm machinery - should you own it? * *

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

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.

Ownership Cost		
Depreciation: Original cost—salvage value estimated life		
Interest: Interest rate × original cost + 2*		
Repairs: Estimated 2 to 5% of cost		
Taxes and Insurance: Estimated 1 to 2% of cost		
Takes and Insurance: Estimated 1 to 2% of cost		=
Total ownership cost annually:		(A) \$
Ownership cost per unit: Total ownership cost + estimated	I annual use	
(bu., acre, ton, hour)	***************************************	(B) \$
Operating Cost per Unit		
Tractor: Gas, oil, repair		
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 tor 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, properation are an important factor. One should also consider abusiness.	archase is not desirable unless loss of alternative uses for capital and labor	production and timeliness of in another part of the farm
3. Determination 3-What acreage (or number of other units)		
Total ownership cost (A) Custom rate-operating cost (E - C =) needed to justify ownership.	acreage (or number of oth	er units)
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 unfa 1) Better alternative use of c 2) Alternative value of tractor work is hired. 3) Possible to do job with an	apital. or and labor saved if custom

[&]quot;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. Routhe, Extension Pamphlet 134, University of Minnesota, June 1961.