

Custom-Work Charges in Maryland

Introduction

Financial and economic considerations such as limited capital, untimely cash flow, insufficient labor, small acreage or other reasons induce farmers to hire custom services for field operations. Custom-work charges are determined by demand and supply and are negotiated between farmers and custom operators. The purpose of this publication is to provide information on custom-work charges in Maryland and to provide data to assist in decision making regarding purchasing farm equipment.

Custom-Work Charges for 2001

A mail survey was conducted in the fall of 2000 to determine custom-work charges in Maryland. Data were collected from 76 custom operators and farmers and summarized for the State and two geographical regions within it. The geographical regions are the Eastern Shore and Western Shore¹.

Participants indicated the rates they charged for various field operations. The charges reported in this publication may serve as a guide in determining an acceptable rate for a particular job where little other information is available. The charges can also be compared with costs and returns and may be used as a basis for working out more equitable charges for both the custom operator and customer.

Table 1 summarizes the custom-work charges for the various operations for the State of Maryland. It shows the range (low and high), as well as the median. The median is the observation at the midpoint of the range (not the average of the range). Tables 2 and 3 summarize the custom-work charges for the Eastern Shore and Western Shore of the State. Within the regions, there are wide ranges in charges for many operations. Also, charges for some operations vary substantially between regions. These variations may be due to the lack of knowledge about charges and differences in location, topography, field size and shape, crop yields, soil conditions, weather conditions, work quality, equipment type and size, timeliness, or the ratio of available jobs to custom operators.

Owning Machinery Versus Custom Hiring Field Operations

In addition to the aforementioned applications, farmers can use the information in this fact sheet to decide whether it is more economical to own equipment or to hire custom service for an operation. To make this decision, the farmer must compare the fixed costs (depreciation, interest on average investment, taxes, insurance, and housing) and variable costs (repairs, fuel, oil, and labor) of owning and operating equipment to the cost of custom services.

The “break-even” point can be calculated to help the farmer decide whether to own the equipment or hire custom services. The “break-even” point can be computed graphically (Figure 1) or by using the following formula:

$$\text{Break-even Point} = \frac{\text{Annual Fixed Costs}}{(\text{Custom Charge per Unit}) - (\text{Variable Cost per Unit})}$$

The “break-even” point can be calculated on the basis of any appropriate unit such as acre, bale, bushel, hour, ton, etc. The analysis is on a before-tax basis since tax implications vary and could affect each farmer differently.

For example, assume a farmer can have corn harvested on a custom basis for \$25 per acre. If the variable cost of operating a corn combine totaled \$5.18 per acre, and annual fixed cost was \$28,660², the farmer would need 1,446 acres of corn to justify owning the combine. Graphically, the break-even acreage is shown to be 1,446 acres (Figure 1). If the farmer had fewer than 1,446 acres, it would be more economical to have the corn harvested on a custom basis. If the farmer had 1,000 acres, \$8,840 would be saved (fixed cost of \$28,660 plus \$5,180 variable

cost minus \$25,000 custom cost) by employing the custom operator. However, if the farmer had 2,000 acres, \$10,980 would be saved (custom cost \$50,000 minus the sum of \$28,660 fixed cost and \$10,360 variable cost) by owning the combine. This analysis does not consider other issues such as timeliness of harvest or reduced harvest losses. Farmers who own machines can perform field operation when they wish and may be more careful with the harvest than a custom operator.

Acknowledgments

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¹ Eastern Shore includes Caroline, Cecil, Dorchester, Kent, Queen Anne’s, Somerset, Talbot, Wicomico, and Worcester Counties. Western Shore includes Allegany, Anne Arundel, Baltimore, Calvert, Carroll, Charles, Frederick, Garrett, Harford, Howard, Montgomery, Prince George’s, St. Mary’s and Washington Counties.

² Assumes cost of combine to be \$220,000, interest at 18 percent of average value, life of combine 10 years (20-percent salvage value), and insurance and housing at \$500 per year.

Table 1. Custom Work Rates in Dollars for the State of Maryland, 2001.

Operation	Unit	Median	Low	High	Operation	Unit	Median	Low	High
Stalk cutting	acre	10.00	7.00	15.00	Combine corn	acre	25.00	18.00	38.00
Plow, chesil	acre	14.00	7.00	25.00	Combine soybeans	acre	25.00	20.00	38.00
Plow, moldboard	acre	15.00	10.00	30.00	Combine small grains	acre	25.00	18.00	38.00
Disk, heavy	acre	12.00	6.00	25.00	Haul grain, local	bu	0.12	0.05	0.50
Disk, light	acre	10.00	5.00	21.00	Haul grain, long distance	bu	0.20	0.10	0.70
Disk with cultipacker or harrow	acre	12.00	6.00	25.00	Store grains	bu/mo	0.03	0.01	0.05
Cultivating	acre	8.00	5.00	15.00	Dry grain	bu/pt	0.03	0.01	0.03
Cultipack	acre	10.00	4.00	15.00	Mow	acre	10.00	5.00	30.00
Subsoil	acre	18.00	9.00	30.00	Mow & condition hay	acre	12.00	7.00	35.00
Corn planting, conventional with fertilizer	acre	14.00	10.00	30.00	Rake hay	acre	7.00	5.00	15.00
Corn planting, conventional without fertilizer	acre	14.00	9.00	25.00	Bale hay	bale	0.50	0.30	1.00
Corn planting, reduced till with fertilizer	acre	15.00	10.00	30.00	Bale straw	bale	0.50	0.30	0.75
Corn planting, reduced till without fertilizer	acre	13.00	10.00	25.00	Bale small round bales	bale	7.00	6.00	15.00
Soybean planting, conventional with fert.	acre	13.50	10.00	25.00	Bale large round bales	bale	8.00	6.00	10.00
Soybean planting, conv. without fert.	acre	12.00	9.00	20.00	Bale large square bales	bale	11.00	7.00	12.00
Soybean planting, reduced till without fert.	acre	15.00	6.00	20.00	Mow, rake, bale-nohaul	bale	1.25	0.38	1.60
Soybean planting with spraying	acre	20.00	10.00	25.00	Complete hay harvest	bale	1.50	0.50	1.75
Drill small grains with fertilizer	acre	18.00	7.00	25.00	Bushhogging	hour	45.00	16.00	88.00
Drill small grains without fertilizer	acre	14.00	5.00	30.00	Grind feed	cwt	0.60	0.15	1.25
No-till drill seeding	acre	15.50	10.00	40.00	Mix feed	cwt	0.45	0.25	1.00
Spread dry fertilizer	acre	6.00	4.00	10.00	Grind and mix feed	cwt	1.00	0.30	1.60
Spreading lime (includes lime & application)	ton	25.00	15.00	38.00	Posthole digging	hole	4.00	3.00	5.00
Applying Anhydrous ammonia	acre	8.00	6.00	16.00	Post driving	post	5.00	3.00	5.00
Apply liquid fertilizer	acre	7.00	5.00	16.00	Bobcat	hour	40.00	22.00	60.00
Manure loading and spreading	ton	6.00	0.90	10.00	Snow removal	hour	55.00	35.00	100.00
Spray	acre	6.00	4.00	15.00					

Includes all counties in the State of Maryland

The median is the observation at the midpoint of the range, not the average of the range.

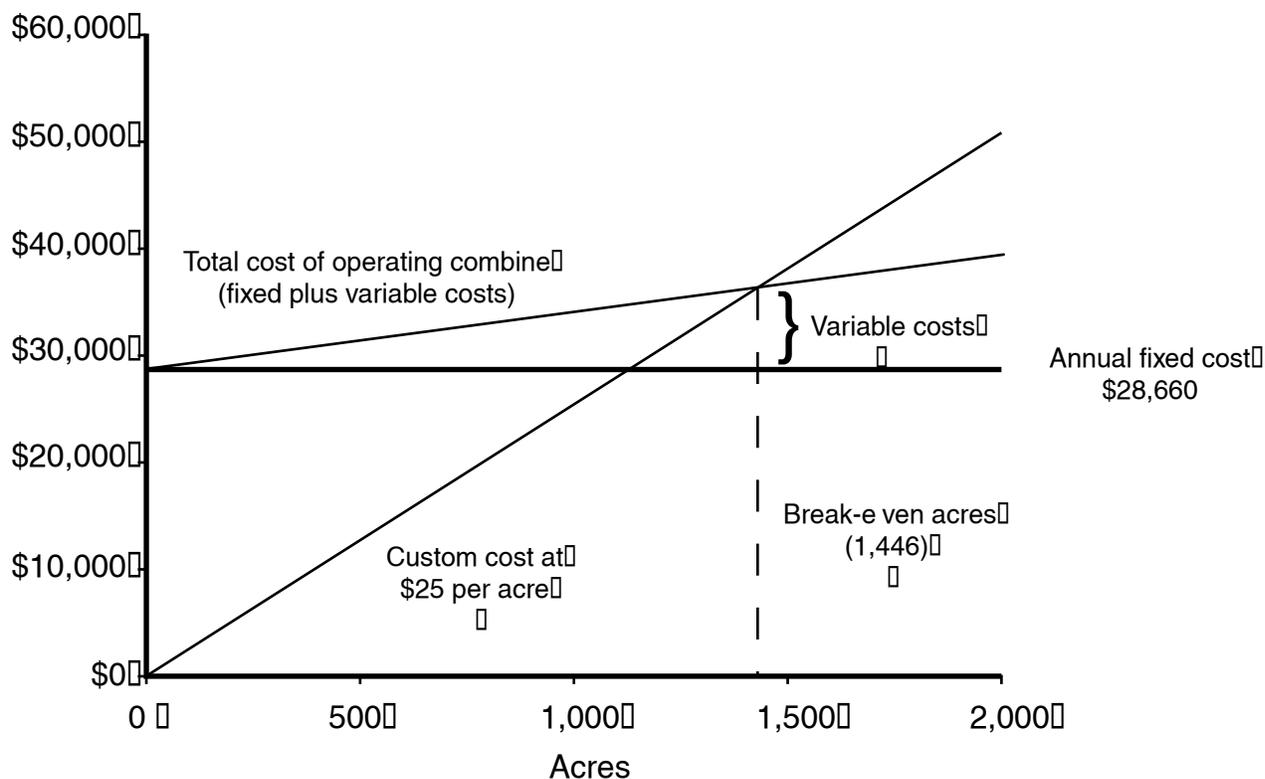


Figure 1. Break-even acreage:owning a combine versus custom harvesting.

Table 2. Custom Work Rates in Dollars for the Eastern Shore of Maryland, 2001.

Operation	Unit	Median	Low	High	Operation	Unit	Median	Low	High
Stalk cutting	acre	12.00	7.00	12.00	Combine corn	acre	25.00	18.00	26.00
Plow, chesil	acre	12.00	8.00	15.00	Combine soybeans	acre	25.00	20.00	26.00
Plow, moldboard	acre	14.00	10.00	18.00	Combine small grains	acre	24.00	18.00	33.30
Disk, heavy	acre	12.00	6.00	15.00	Haul grain, local	bu	0.10	0.05	0.15
Disk, light	acre	10.00	6.00	12.00	Haul grain, long distance	bu	0.20	0.10	0.30
Disk with cultipacker or harrow	acre	12.00	6.00	16.00	Store grains	bu/mo	0.03	0.03	0.04
Cultivating	acre	8.00	8.00	11.00	Dry grain	bu/pt	0.03	0.03	0.07
Cultipack	acre	8.00	4.00	12.00	Mow	acre	10.00	7.00	12.00
Subsoil	acre	16.00	12.00	25.00	Mow & condition hay	acre	12.00	12.00	15.00
Corn planting, conventional with fertilizer	acre	13.50	10.00	18.00	Rake hay	acre	6.00	5.00	8.00
Corn planting, conventional without fertilizer	acre	12.00	9.00	18.00	Bale hay	bale	0.35	0.30	0.60
Corn planting, reduced till with fertilizer	acre	15.00	10.00	20.00	Bale straw	bale	0.35	0.30	0.60
Corn planting, reduced till without fertilizer	acre	12.00	10.00	18.00	Bale small round bales	bale	NA	NA	NA
Soybean planting, conventional with fert.	acre	13.50	10.00	18.00	Bale large round bales	bale	6.00	1.00	8.00
Soybean planting, conv. without fert.	acre	12.00	9.00	14.00	Bale large square bales	bale	11.00	7.00	12.00
Soybean planting, reduced till without fert.	acre	14.00	6.00	20.00	Mow, rake, bale-nohaul	bale	NA	NA	NA
Soybean planting with spraying	acre	20.00	10.00	22.00	Complete hay harvest	bale	NA	NA	NA
Drill small grains with fertilizer	acre	NA	NA	NA	Bushhogging	hour	40.00	30.00	55.00
Drill small grains without fertilizer	acre	12.00	8.50	16.00	Grind feed	cwt	NA	NA	NA
No-till drill seeding	acre	15.00	10.00	20.00	Mix feed	cwt	NA	NA	NA
Spread dry fertilizer	acre	6.00	4.50	8.00	Grind and mix feed	cwt	NA	NA	NA
Spreading lime (includes lime & application)	ton	27.00	20.00	32.00	Posthole digging	hole	4.00	3.00	5.00
Applying Anhydrous ammonia	acre	7.50	6.00	16.00	Post driving	post	5.00	3.00	5.00
Apply liquid fertilizer	acre	6.00	5.00	16.00	Bobcat	hour	40.00	22.00	45.00
Manure loading and spreading	ton	6.00	2.00	10.00	Snow removal	hour	45.00	35.00	75.00
Spray	acre	6.00	4.00	7.00					

Eastern Shore includes Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties.

The median is the observation at the midpoint of the range, not the average of the range.

NA indicates that there were less than 3 observations, consequently the rates are not published.

Table 3. Custom Work Rates in Dollars for the Western Shore of Maryland, 2001.

Operation	Unit	Median	Low	High	Operation	Unit	Median	Low	High
Stalk cutting	acre	12.00	7.00	12.00	Combine corn	acre	25.00	18.00	26.00
Plow, chesil	acre	12.00	8.00	15.00	Combine soybeans	acre	25.00	20.00	26.00
Plow, moldboard	acre	14.00	10.00	18.00	Combine small grains	acre	24.00	18.00	33.30
Disk, heavy	acre	12.00	6.00	15.00	Haul grain, local	bu	0.10	0.05	0.15
Disk, light	acre	10.00	6.00	12.00	Haul grain, long distance	bu	0.20	0.10	0.30
Disk with cultipacker or harrow	acre	12.00	6.00	16.00	Store grains	bu/mo	0.03	0.03	0.04
Cultivating	acre	8.00	8.00	11.00	Dry grain	bu/pt	0.03	0.03	0.07
Cultipack	acre	8.00	4.00	12.00	Mow	acre	10.00	7.00	12.00
Subsoil	acre	16.00	12.00	25.00	Mow & condition hay	acre	12.00	12.00	15.00
Corn planting, conventional with fertilizer	acre	13.50	10.00	18.00	Rake hay	acre	6.00	5.00	8.00
Corn planting, conventional without fertilizer	acre	12.00	9.00	18.00	Bale hay	bale	0.35	0.30	0.60
Corn planting, reduced till with fertilizer	acre	15.00	10.00	20.00	Bale straw	bale	0.35	0.30	0.60
Corn planting, reduced till without fertilizer	acre	12.00	10.00	18.00	Bale small round bales	bale	NA	NA	NA
Soybean planting, conventional with fert.	acre	13.50	10.00	18.00	Bale large round bales	bale	6.00	1.00	8.00
Soybean planting, conv. without fert.	acre	12.00	9.00	14.00	Bale large square bales	bale	11.00	7.00	12.00
Soybean planting, reduced till without fert.	acre	14.00	6.00	20.00	Mow, rake, bale-nohaul	bale	NA	NA	NA
Soybean planting with spraying	acre	20.00	10.00	22.00	Complete hay harvest	bale	NA	NA	NA
Drill small grains with fertilizer	acre	NA	NA	NA	Bushhogging	hour	40.00	30.00	55.00
Drill small grains without fertilizer	acre	12.00	8.50	16.00	Grind feed	cwt	NA	NA	NA
No-till drill seeding	acre	15.00	10.00	20.00	Mix feed	cwt	NA	NA	NA
Spread dry fertilizer	acre	6.00	4.50	8.00	Grind and mix feed	cwt	NA	NA	NA
Spreading lime (includes lime & application)	ton	27.00	20.00	32.00	Posthole digging	hole	4.00	3.00	5.00
Applying Anhydrous ammonia	acre	7.50	6.00	16.00	Post driving	post	5.00	3.00	5.00
Apply liquid fertilizer	acre	6.00	5.00	16.00	Bobcat	hour	40.00	22.00	45.00
Manure loading and spreading	ton	6.00	2.00	10.00	Snow removal	hour	45.00	35.00	75.00
Spray	acre	6.00	4.00	7.00					

Eastern Shore includes Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties.

The median is the observation at the midpoint of the range, not the average of the range.

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