



FACT SHEET

Custom-Work Charges and Land-Rental Rates in Maryland

Fact Sheet 683

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Introduction

A variety of economic constraints, such as limited capital, cash flow, acreage, or labor, induce farmers to hire custom services for field operations and to rent land to increase production capacity. Custom-work charges and land-rental rates are determined by supply and demand: Fees are negotiated between farmers and custom operators or land owners. The purpose of this publication is to provide historical information on custom-work charges and land-rental rates in Maryland and to present data that is relevant to decisions regarding purchasing and renting farm equipment and real estate.

Custom-Work Charges in Maryland

In 1969, Drs. Billy Lessley and George Stevens, Department of Agricultural and Resource Economics, University of Maryland at College Park, surveyed 113 farmers and custom operators to determine the rates for various field operations in five geographical regions of Maryland (Upper Eastern Shore, Lower Eastern Shore,

Piedmont, Southern Maryland, and Western Maryland). Dr. Lessley subsequently directed eight additional surveys from 1974 through 1989. During that time, the number of participants in the survey grew to more than 350. Dr. Lessley's work was continued by Dale Johnson in a survey that was conducted in 1993. Table 1 is a summary of all 10 surveys and shows increases in typical custom-work charges for field operations from 1969 to 1993.

It is significant that custom-work charges did not increase as rapidly as prices for the machinery, fuel, and labor that are required to perform custom services. Figure 1 compares the yearly price index for custom-work charges in Maryland to the Index of Agricultural Prices for tractors and other machinery, fuel, and labor as reported in "Agricultural Statistics," published by the U.S. Department of Agriculture (USDA). These indices show the levels of prices in comparison to a base year, which in this case is 1969. For example, the index for custom-work charges was 295 in 1989. This means that if a custom-work charge was \$1 in 1969, by 1989 the price had increased to \$2.95. The price indices in 1989 for machinery, fuel, and labor were 436, 353, and 349,

respectively. Another way to describe these increases is that machinery prices rose approximately 7 percent each year, fuel prices rose 6.2 percent each year, labor prices rose 5.9 percent each year, and custom rates rose only 4.9 percent each year.

The differences in price increases may be due to the advent of larger, more efficient machinery that enables farmers to cover more acres per unit of time. For example, even though the price of grain combines

increases, custom charges for harvesting grain increase less because the grain combine can harvest more acres per day or per harvest season. The increased cost of the machines are spread over more acres.

Custom-Work Charges for 1993

A telephone survey was conducted in 1993 to determine custom-work charges in Maryland. Data were collected from 313 custom operators and farmers and summa-

Table 1. Custom-work Charges in Dollars Per Unit for State of Maryland, 1969–1993*

Field operation	Unit	Year									
		1969	1974	1976	1978	1980	1982	1984	1986	1989	1993
Stalk cutting	Acre	1.50	2.00	4.00	5.00	5.00	5.00	6.00	6.00	8.00	8.00
Plowing, moldboard	Acre	4.75	7.00	7.00	8.00	12.00	12.00	12.00	12.00	12.00	15.00
Plowing, chisel	Acre	NR	NR	6.00	8.00	10.00	10.00	10.00	10.00	12.00	12.00
Disking, heavy	Acre	NR	NR	8.00	8.00	9.00	10.00	10.00	10.00	10.00	10.00
Disking	Acre	2.00	3.00	4.00	5.00	7.00	8.00	7.00	7.00	8.00	8.00
Corn planting, conventional	Acre	2.00	3.00	6.00	8.00	8.00	10.00	10.00	10.00	10.00	12.00
Corn planting, conventional w/fert.	Acre	NR	3.00	7.00	10.00	9.00	10.00	10.00	10.00	12.00	12.00
Corn planting, no till	Acre	NR	6.00	8.00	10.00	12.00	12.00	12.00	10.00	12.00	12.00
Soybean planting, conventional	Acre	2.00	3.00	6.00	6.50	8.00	10.00	10.00	10.00	12.00	12.00
Soybean planting, no till	Acre	NR	6.00	8.00	8.50	12.00	12.00	12.00	12.00	14.00	15.00
Drilling small grains	Acre	2.00	3.00	5.00	6.00	7.00	8.00	7.00	10.00	12.00	10.00
Spraying	Acre	2.00	2.50	3.00	3.00	3.50	4.50	5.00	5.00	5.00	5.00
Spreading lime	Acre	NR	3.00	4.00	5.00	5.00	5.00	5.00	6.00	5.00	5.00
Spreading dry fertilizer	Acre	NR	2.50	3.00	3.00	4.00	5.00	5.00	5.00	5.00	5.00
Spreading liquid fertilizer	Acre	NR	NR	NR	NR	4.00	5.00	5.00	5.00	5.00	6.00
Picking corn	Acre	8.00	10.00	12.00	12.00	13.00	15.00	20.00	20.00	22.00	25.00
Combining corn	Acre	10.00	12.00	15.00	15.00	20.00	22.00	22.00	22.00	22.00	25.00
Combining soybeans	Acre	8.00	10.00	12.00	14.00	20.00	20.00	20.00	20.00	20.00	25.00
Combining small grains	Acre	8.00	10.00	12.00	14.00	18.00	20.00	20.00	20.00	20.00	25.00
Hauling grain	Bushel	0.05	0.10	0.10	0.10	0.10	0.10	0.15	0.15	0.15	0.10
Storing grain	Bushel	NR	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Mowing and conditioning	Acre	NR	6.00	6.00	6.00	6.00	7.00	8.00	10.00	10.00	10.00
Baling hay	Bale	0.15	0.20	0.25	0.25	0.30	0.35	0.35	0.35	0.35	0.50
Complete hay harvest	Bale	0.30	0.40	0.50	0.65	0.75	0.80	1.00	1.00	1.00	1.25
Chop, haul, fill silo	Ton	2.00	2.00	2.25	2.00	2.50	3.00	3.00	3.00	3.00	3.00
Grinding and mixing	Acre	0.25	0.38	0.40	0.45	0.60	0.60	0.75	0.75	0.75	0.75

*These are the charges that were observed most often. They are nominal prices not adjusted for inflation. NR=not reported.

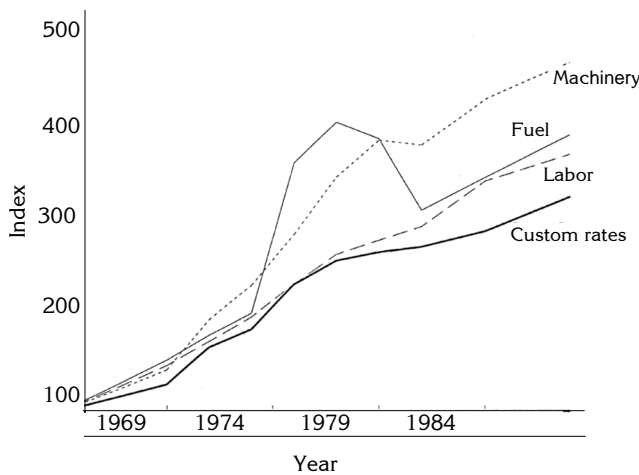


Figure 1. Index of Agricultural Prices 1969–1989.

rized for the State and for five geographical areas within it. The geographical regions are Lower Eastern Shore (51 participants from Dorchester, Somerset, Wicomico, and Worcester Counties), Upper Eastern Shore (78 participants from Caroline, Cecil, Kent, Queen Anne’s and Talbot Counties), Southern Maryland (58 participants from Anne Arundel, Calvert, Charles, Prince George’s and St. Mary’s Counties), Piedmont (88 participants from Baltimore, Carroll, Frederick, Harford, Howard, and Montgomery Counties), and Western Maryland (38 participants from Allegany, Garrett, and Washington Counties). Participants estimated the custom-work charges for various operations in their areas. Where little other information is available, these charges may guide farmers in determining an acceptable rate for a particular field operation. The charges can also be compared to current rates and, with available records of costs and returns, used to negotiate equitable charges for both the custom operator and the customer.

Table 3 at the end of the text presents a summary of typical charges (those most often reported) as well as the range (low and high) in charges reported for various operations in Maryland. Tables 4 through 8, also at the back of this publication, sum-

marize the custom-work charges for each of the five major regions of the State. Within a geographical area, there are wide ranges in charges for some operations. Also, the fees for some operations vary substantially between geographical areas. These variations may be due to a lack of knowledge about charges or differences in location, topography, field size and shape, crop yields, soil conditions, weather conditions, work quality, timeliness, or equipment type and size, or the ratio of available jobs to custom operators.

Owning Machinery Versus Custom Hiring for 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, repairs, taxes and insurance) and variable costs (fuel, oil, labor, etc.) 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. This number can be determined graphically (Figure 2) 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. For more information, see Fact Sheet 441 “Determining the Cost of Owning or Hiring Custom Services.”

For example, assume the cost for custom harvesting corn is \$25 per acre. If the variable cost of operating a corn combine is \$4.20 per acre and the annual fixed cost is \$25,600,* the farmer needs 1,230 acres of

*Assumes cost of combine to be \$150,000, interest at 10 percent of average value, repairs at 3 percent of new cost, life of combine 10 years (25 percent salvage value), and insurance at 0.5 percent of average value.

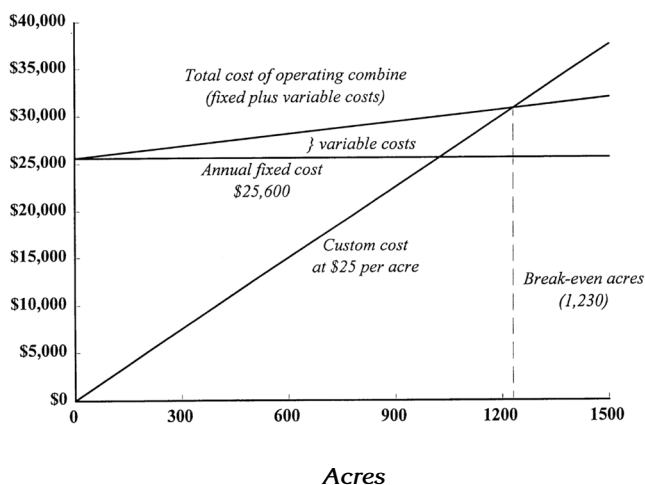


Figure 2. Break-even acreage: owning a combine versus custom harvesting.

corn to justify owning the combine. This amount can also be determined graphically, as in Figure 2. If the farmer has fewer than 1,230 acres, it would be more economical to have the corn harvested on a custom basis. If the farmer has 750 acres, \$10,000 would be saved (fixed cost of \$20,520 plus \$2,940 variable cost minus \$18,750 custom cost) by employing the custom operator. However, if the farmer has 1,500 acres, \$5,600 would be saved (custom cost \$33,000, minus the sum of the \$25,600 fixed cost and \$6,300 variable cost) by owning the combine and harvesting the corn himself. This analysis does not consider other issues such as timeliness of harvest or reduced harvest losses. Farmers who own machines can perform field operations when they wish and may be more careful with the harvest than a custom operator.

Land-Rental Rates in Maryland

From 1988 through 1992, the Maryland Agricultural Statistics Service conducted an annual survey of farmers to determine the rents paid for cropland parcels. Between 600 and 700 parcels from all counties of the State were included in each year's survey.

The results are summarized in Table 2, which shows the average land-rental rates for five regions of Maryland. Some factors that may influence land-rental rates include soil type and productivity, proximity to metropolitan areas, climate, and local supply and demand for rental land.

Land-rental rates are an important component of farm economics. Farmers should do an enterprise budget for the crops and livestock that they anticipate producing on rental land to determine the rates they are willing to pay (see Fact Sheet 545 "Enterprise Budgets in Farm Management Decisionmaking"). After subtracting all other variable and fixed costs from the income generated by the land, there should be enough income left over to pay the land rent as well as provide a profit. If the residual income is not greater than the land-rental rate, then the farmer should either negotiate a reduced rent or look for other suitable, less expensive rental parcels.

Owning Versus Renting Land

The economic implications of owning versus renting land are complex. All things being equal, most people would rather own land for some of the following reasons. Land is good collateral for obtaining loans. The value of land may appreciate, which can make it a good investment. There is

Table 2. Average \$/Acre Land-Rental Rates from 1988 to 1992 for Five Regions of Maryland

Region*	Year				
	1988	1989	1990	1991	1992
Lower Eastern Shore	\$50	\$48	\$44	\$45	\$45
Upper Eastern Shore	58	53	49	49	51
Southern Maryland	25	29	27	27	29
Piedmont	45	43	44	46	47
Western Maryland	26	28	30	30	31

*Lower Eastern Shore includes Dorchester, Somerset, Wicomico, and Worcester Counties; Upper Eastern Shore includes Caroline, Cecil, Kent, Queen Anne's and Talbot Counties; Southern Maryland includes Anne Arundel, Calvert, Charles, Prince George's and St. Mary's Counties; Piedmont includes Baltimore, Carroll, Frederick, Harford, Howard, and Montgomery Counties; Western Maryland includes, Allegany, Garrett, and Washington Counties.

long-term security in owning land: such security is not available in year-to-year rental arrangements. Land owners often have more flexibility in using the land for their purposes. Finally, land ownership generates prestige and pride.

There can be some drawbacks to owning land. Land ownership may limit the amount of capital and credit available for farm-business expansion or capital needs. Mortgage payments can hamper cash flow, and mortgage interest expense can drain farm profits. Renting or leasing real estate provides more flexibility in expanding or contracting the size of the business. Farmers should consider all of these implications when deciding to purchase or rent land.

Land-rental rates may be useful when making land purchase decisions. Capitalizing rental rates is a simple method for approximating the agricultural value of land when determining its purchase price. The following formula can be used to “capitalize” land rents:

$$\text{Agricultural value of land} = \frac{\text{Expected future annual net income}}{\text{Capitalization rate or Discount rate}}$$

The land-rental rate is the expected annual net income that the land will generate for the owner. The capitalization rate is a desired rate of return that a prospective buyer would like to earn on their land investment. A capitalization rate that is commonly used for the capitalization method is the rate that a person could earn in an alternative investment minus the rate

of inflation. Such alternatives might be a long-term bond or certificate of deposit. The following example illustrates this concept. Assume a parcel of land will generate a rental rate of \$50 per acre per year for growing crops. If the rate of return for an alternative investment is 8 percent per year, and the expected long-term rate of inflation is 3 percent, the value of the land for growing the crops is

$$\frac{\$50 \text{ per acre}}{8 \text{ percent} - 3 \text{ percent}} = \$1,000 \text{ per acre}$$

The value of the land for growing crops is \$1,000 per acre. If a person buys the land for more than \$1,000 per acre, the increase in the price must be justified by existing buildings that may add value, by other uses of the land that may generate additional income, by speculation that the price of the land will increase faster than the rate of inflation, or by other reasons that the person may have.

Acknowledgments

Appreciation is extended to Max Buckel, Chester Cissel, David Eigenbrode, Loyal Reger, Kenneth Shifflet, Ed Swecker, and George Spence for their assistance in collection of custom-work charge data for this publication. Appreciation is also extended to the late Billy V. Lessley for his leadership and supervision of the custom-rate surveys carried out during his tenure at the University of Maryland.

Table 3. Custom-Work Charges in Dollars for State of Maryland, 1993

Operation	Unit	Typical Charge*	Range in Charges	Operation	Unit	Typical Charge*	Range in Charges
Farm operations				Grinding feed	Hundredweight	0.70	0.30-1.00
Stalk cutting	Acre	8.00	4.50-15.00	Mixing feed	Hundredweight	0.25	0.10-0.40
Plowing, moldboard	Acre	15.00	8.00-25.00	Grinding and			
Plowing, chisel	Acre	12.00	5.00-20.00	mixing feed	Hundredweight	0.75	0.60-1.50
Disking, heavy	Acre	10.00	6.00-16.00	Pelleting	Hundredweight	—	0.30-0.75
Disking, light	Acre	8.00	6.00-12.00	Crimping	Hundredweight	0.75	0.35-1.00
Disking, cultipacker				Flaking	Hundredweight	—	0.35-0.95
or harrow	Acre	10.00	8.00-20.00	Bushhogging	Hour	35.00	10.00-60.00
Harrowing with				Mowing, rotary	Acre	12.00	4.50-25.00
cultipacker	Acre	12.00	8.00-20.00	Mowing and			
Harrowing without				conditioning hay	Acre	10.00	4.00-25.00
cultipacker	Acre	7.00	6.00-12.00	Raking hay	Acre	7.00	4.00-8.0
Cultivating	Acre	8.00	5.00-14.00	Baling hay	Bale	0.50	0.10-1.5
Cultipacking	Acre	—	5.00-12.00	Baling straw	Bale	0.35	0.20-0.0
Rotary hoe	Acre	—	5.00-15.00	Mow, rake, bale			
Landsman finisher	Acre	—	7.50-15.00	hay, no haul	Bale	1.00	0.30-1.30
Subsoiling	Acre	15.00	10.00-25.00	Complete hay harvest	Bale	1.25	0.50-1.50
Corn planting, conventional				Baling, small			
without fertilizer	Acre	12.00	6.00-18.00	round bales	Bale	—	4.00-10.00
Corn planting, conventional				Baling, large			
with fertilizer	Acre	12.00	7.00-20.00	round bales	Bale	8.00	6.00-16.50
Corn planting, no till				Field chop,			
without fertilizer	Acre	12.00	7.00-18.00	haul, and fill silo	Ton	—	2.00-7.00
Corn planting, no till				Land clearing, grading, and other			
with fertilizer	Acre	12.00	6.00-25.00	Dozer, large	Hour	100.00	60.00-120.00
Soybean planting, conventional				Dozer, medium	Hour	75.00	45.00-95.00
without fertilizer	Acre	12.00	7.00-18.00	Dozer, small	Hour	50.00	35.00-75.00
Soybean planting, conventional				Loader, track, large	Hour	75.00	50.00-125.00
with fertilizer	Acre	12.00	6.50-18.00	Loader, track, medium	Hour	55.00	45.00-110.00
Soybean planting, no till				Loader, track, small	Hour	50.00	40.00-90.00
without fertilizer	Acre	15.00	7.00-25.00	Loader, rubber, large	Hour	85.00	40.00-100.00
Soybean planting,				Loader, rubber, medium	Hour	55.00	37.50-85.00
no till with spraying	Acre	20.00	11.00-22.00	Loader, rubber, small	Hour	50.00	25.00-74.00
Drilling small grains				Backhoe	Hour	45.00	30.00-90.00
without fertilizer	Acre	10.00	4.50-20.00	Excavator	Hour	85.00	55.00-130.00
Drilling small grains				Grader	Hour	60.00	25.00-100.00
with fertilizer	Acre	12.00	8.00-18.00	Grade all	Hour	85.00	59.00-95.00
no till drill seeding	Acre	15.00	10.00-25.00	Dragline	Hour	65.00	60.00-82.00
Broadcast seeding	Acre	5.50	5.50-11.00	Crane	Hour	100.00	60.00-150.00
Spraying, ground	Acre	5.00	4.50-12.00	Scraper	Hour	90.00	50.00-130.00
Spraying, aerial	Acre	5.00	5.00-10.00	Truck, single axle	Hour	35.00	25.00-45.00
Spreading lime,				Truck, tandem axle	Hour	40.00	35.00-65.00
includes lime	Ton	24.00	21.00-28.00	Truck, tractor and trailer	Hour	65.00	40.00-135.00
Spreading dry fertilizer	Acre	5.00	3.00-8.00	Bobcat	Hour	—	20.00-50.00
Applying liquid fertilizer	Acre	6.00	4.00-8.00	Snow removal	Hour	50.00	35.00-78.00
Applying anhydrous				Fence building (includes material and labor)			
ammonia	Acre	8.00	7.00-13.00	Post and rail, 3-rail	Foot	—	3.00-4.65
Picking corn	Acre	25.00	22.00-26.00	Post and rail, 4-rail	Foot	—	3.65-6.00
Combining corn				Oak board, 3-board	Foot	—	3.25-5.60
and soybeans	Acre	25.00	20.00-35.00	Oak board, 4-board	Foot	—	3.70-6.20
Combining small grains	Acre	25.00	17.00-35.00	American wire	Foot	—	2.35-4.50
Hauling grain, local	Bushel	0.10	0.05-0.30	Chain link, 4 feet high	Foot	—	3.60-7.80
Hauling grain,				Chain link, 6 feet high	Foot	—	4.60-10.70
long distance	Bushel	0.20	0.10-0.40	Barbwire	Foot	—	1.00-4.50
Storing grain	Bu/Mo	0.03	0.02-0.06	High tensile	Foot	—	1.10-1.50
Drying grain	Price/Pint	—	0.013-0.05	Posthole digging	Hole	3.00	1.00-8.00
Shelling corn	Hundredweight	—	0.15-0.25				

*Typical charges are those that are observed most often. A dash in this column indicates that no one charge was observed more than any other charge.

Table 4. Custom-Work Rates in Dollars on the Lower Eastern Shore of Maryland, 1993*

Operation	Unit	Typical Charge **	Range in Charges	Operation	Unit	Typical Charge**	Range in Charges
Farm operations				Combining			
Stalk cutting	Acre	5.00	5.00-12.00	small grains	Acre	22.00	20.00-25.00
Plowing, moldboard	Acre	12.00	8.00-16.00	Hauling grain, local	Bushel	0.10	0.05-0.15
Plowing, chisel	Acre	8.00	5.00-15.00	Hauling grain,			
Disking, heavy	Acre	—	6.00-14.00	long distance	Bushel	0.15	0.15-0.20
Disking, light	Acre	8.00	6.00-10.00	Storing grain	Bu/Mo	0.03	0.03-0.05
Disking with cultipacker				Bushhogging	Hour	35.00	10.00-45.00
or harrow	Acre	—	8.00-15.00	Mowing, rotary	Acre	—	7.00-12.00
Subsoiling	Acre	15.00	14.00-20.00	Mowing and			
Corn planting, conventional				conditioning hay	Acre	—	4.00-15.00
without fertilizer	Acre	10.00	7.50-15.00	Raking hay	Acre	—	4.00-7.00
Corn planting, conventional				Baling hay	Bale	—	0.25-0.50
with fertilizer	Acre	12.00	9.00-15.00	Baling straw	Bale	0.35	0.20-0.50
Corn planting, no till				Mow, rake, and bale			
without fertilizer	Acre	12.00	6.00-18.00	hay, no haul	Bale	—	0.38-0.85
Corn planting, no till				Baling, large			
with fertilizer	Acre	15.00	6.00-16.00	round bales	Bale	—	8.00-10.00
Soybean planting, conventional				Land clearing, grading, and other			
without fertilizer	Acre	10.00	7.50-15.00	Dozer, large	Hour	75.00	65.00-75.00
Soybean planting, conventional				Dozer, small	Hour	50.00	40.00-50.00
with fertilizer	Acre	12.00	9.00-15.00	Loader, rubber	Hour	40.00	40.00-60.00
Soybean planting, no till				Backhoe	Hour	45.00	30.00-45.00
without fertilizer	Acre	12.00	9.00-16.00	Excavator	Hour	—	65.00-92.00
Soybean planting,				Grader	Hour	—	25.00-60.00
no till with spraying	Acre	20.00	12.00-20.00	Truck, single axle	Hour	35.00	35.00-35.00
Drilling small grains	Acre	7.50, 10.00	4.50-10.00	Truck, tandem axle	Hour	40.00	40.00-40.00
no till drill seeding	Acre	15.00	10.00-25.00	Bobcat	Hour	20.00, 25.00	20.00-35.00
Spraying, ground	Acre	5.00	5.00-8.00	Fence building (includes material and labor)			
Spraying, aerial	Acre	—	5.00-5.25	Post & rail, 3-rail	Foot	—	2.75-3.65
Spreading lime,				Post & rail, 4-rail	Foot	—	3.65-4.15
includes lime	Ton	—	26.50-28.00	Oak board, 3-board	Foot	—	3.50-4.50
Spreading dry				Oak board, 4-board	Foot	—	4.10-4.80
fertilizer	Acre	4.50, 5.00	4.50-6.00	American wire	Foot	—	3.60-4.10
Applying liquid				Chain link, 4 feet high	Foot	—	4.00-5.50
fertilizer	Acre	—	5.00-8.00	Chain link, 6 feet high	Foot	—	5.50-9.50
Combining corn	Acre	25.00	20.00-25.00	Barbwire	Foot	—	1.00-3.30
Combining soybeans	Acre	22.00	20.00-25.00	Posthole digging	Hole	—	1.40-5.00

*The Lower Eastern Shore includes Dorchester, Somerset, Wicomico, and Worcester Counties.

**Typical charges are those that are observed most often. A dashed line in the typical column indicates that no one charge was observed more often than any other charge.

Table 5. Custom Work Rates in Dollars on the Upper Eastern Shore of Maryland, 1993*

Operation	Unit	Typical Charge**	Range in Charges	Operation	Unit	Typical Charge**	Range in Charges
Farm operation				Hauling grain,			
Stalk cutting	Acre	6.00, 8.00	4.50–8.00	long distance	Bushel	0.18	0.10–0.22
Plowing, moldboard	Acre	12.00	9.00–15.40	Storing grain	Bu/Mo	0.03	0.03–0.06
Plowing, chisel	Acre	14.00	10.00–16.00	Drying grain	Price/Pint	—	0.013–0.02
Disking, heavy	Acre	10.00	7.00–14.00	Grinding and			
Disking, light	Acre	8.00	6.00–11.00	mixing feed	Hundredweight	—	0.63–0.95
Disking with cultipacker				Bushhogging	Hour	35.00, 50.00	35.00–60.00
or harrow	Acre	10.00	8.00–15.00	Mowing, rotary	Acre	—	4.50–12.00
Harrowing with				Mowing and			
cultipacker	Acre	—	8.00–12.00	conditioning hay	Acre	—	5.00–15.00
Harrowing without				Raking hay	Acre	5.00	4.00–8.00
cultipacker	Acre	10.00	8.00–12.00	Baling hay	Bale	0.50, 0.55	0.30–0.55
Cultipacking	Acre	—	10.00–12.00	Baling straw	Bale	—	0.30–0.50
Landsman finisher	Acre	—	7.50–15.00	Mow, rake, bale			
Subsoiling	Acre	14.00, 16.00	12.00–20.00	hay, no haul	Bale	—	0.50–0.90
Rotary hoe	Acre	—	5.00–15.00	Complete hay harvest	Bale	—	0.90–1.30
Cultivating	Acre	8.00	5.00–12.00	Baling large, round bales	Bale	7.00	6.00–9.00
Corn planting,				Field chop, haul,			
conventional				and fill silo	Ton	—	2.25–6.00
without fertilizer	Acre	12.00	6.00–15.50	Land clearing, grading, and other			
Corn planting, conventional				Dozer, large	Hour	100.00	75.00–110.00
with fertilizer	Acre	12.00	7.50–15.50	Dozer, medium	Hour	75.00, 80.00	65.00–85.00
Corn planting, no till				Dozer, small	Hour	55.00	55.00–60.00
without fertilizer	Acre	12.00	8.50–15.50	Loader, track, large	Hour	75.00	75.00–110.00
Corn planting, no till				Loader, track, small	Hour	—	55.00–90.00
with fertilizer	Acre	14.00	8.00–15.50	Loader, rubber, large	Hour	85.00	65.00–85.00
Soybean planting, conventional				Loader, rubber, small	Hour	—	50.00–75.00
without fertilizer	Acre	12.00	6.50–16.00	Backhoe	Hour	45.00	35.00–75.00
Soybean planting, conventional				Excavator	Hour	85.00	75.00–130.00
with fertilizer	Acre	12.00	6.50–16.00	Grader	Hour	70.00	50.00–100.00
Soybean planting, no till				Grade all	Hour	—	85.00–90.00
without fertilizer	Acre	12.00	9.00–25.00	Dragline	Hour	60.00	60.00–65.00
Soybean planting, no till				Crane	Hour	100.00	60.00–100.00
with spraying	Acre	15.00	15.00–22.00	Scraper	Hour	—	75.00–110.00
Drilling small grains	Acre	8.00	8.00–18.00	Truck, single axle	Hour	35.00	30.00–45.00
no till drill seeding	Acre	—	10.00–20.00	Truck, tandem axle	Hour	40.00, 45.00	40.00–65.00
Spraying, ground	Acre	5.00	4.50–7.50	Truck, tractor and trailer	Hour	65.00	50.00–65.00
Spraying, aerial	Acre	—	5.00–5.25	Bobcat	Hour	—	30.00–45.00
Spreading lime,				Fence building (includes material and labor)			
includes lime	Ton	—	26.50–28.00	Post and rail, 3-rail	Foot	—	2.75–3.65
Spreading dry fertilizer	Acre	5.00	3.00–6.00	Post and rail, 4-rail	Foot	—	3.65–4.15
Applying liquid				Oak board, 3-board	Foot	—	3.50–4.50
fertilizer	Acre	5.00	4.00–7.00	Oak board, 4-board	Foot	—	4.10–4.80
Applying anhydrous				American wire	Foot	—	3.60–4.10
ammonia	Acre	7.00	7.00–13.00	Chain link, 4 feet high	Foot	—	4.00–5.50
Combining corn	Acre	25.00	20.00–28.00	Chain link, 6 feet high	Foot	—	5.50–9.50
Combining soybeans	Acre	22.00	20.00–28.00	Barbwire	Foot	—	1.00–3.30
Combining small grains	Acre	22.00	18.00–28.00	Posthole digging	Hole	—	1.40–5.00
Hauling grain, local	Bushel	0.10	0.05–0.15				

*The Upper Eastern Shore includes Caroline, Cecil, Kent, Queen Anne's, and Talbot Counties.

**Typical charges are those that are observed most often. A dashed line in the typical column indicates that no one charge was observed more often than any other charge.

Table 6. Custom Work Rates in Dollars in Southern Maryland, 1993*

Operation	Unit	Typical Charge**	Range in Charges	Operation	Unit	Typical Charge**	Range in Charges
Farm operations				Grinding and			
Stalk cutting	Acre	—	6.00–10.00	mixing feed	Hundredweight	—	0.90–1.50
Plowing, moldboard	Acre	15.00	10.00–20.00	Crimping	Hundredweight	1.00	1.00–1.00
Plowing, chisel	Acre	12.00	7.50–17.00	Bushhogging	Hour	40.00	30.00–55.00
Disking, heavy	Acre	10.00	7.00–15.00	Mowing, rotary	Acre	—	10.00–25.00
Disking, light	Acre	—	7.00–10.00	Raking hay	Acre	7.00	7.00–7.00
Disking with cultipacker or harrow	Acre	—	9.00–20.00	Baling hay	Bale	0.35	0.10–0.60
Harrowing with cultipacker	Acre	—	12.00–20.00	Baling straw	Bale	0.30	0.30–0.60
Cultivating	Acre	—	10.00–14.00	Mow, rake, bale hay no haul	Bale	0.80, 1.00	0.30–1.30
Corn planting, conventional without fertilizer	Acre	10.00, 12.00	7.00–15.00	Complete hay harvest	Bale	—	0.60–1.50
Corn planting, conventional with fertilizer	Acre	15.00	7.00–15.00	Land clearing, grading, and other			
Corn planting, no till without fertilizer	Acre	12.00	7.00–15.00	Dozer, large	Hour	—	60.00–100.00
Corn planting, no till with fertilizer	Acre	15.00	10.00–16.00	Dozer, medium	Hour	—	55.00–85.00
Soybean planting, conventional without fertilizer	Acre	10.00	7.00–15.00	Dozer, small	Hour	50.00	45.00–60.00
Soybean planting, conventional with fertilizer	Acre	—	7.00–15.00	Loader, track, large	Hour	75.00	60.00–100.00
Soybean planting, no till without fertilizer	Acre	10.00	7.00–16.00	Loader, track, medium	Hour	65.00	55.00–87.00
Soybean planting, no till with spraying	Acre	—	11.00–22.00	Loader, track, small	Hour	50.00, 60.00	45.00–70.00
Drilling small grains	Acre	15.00	10.00–16.00	Loader, rubber, large	Hour	—	45.00–95.00
No-till drill seeding	Acre	12.00, 12.50	12.00–12.50	Loader, rubber, medium	Hour	55.00	37.50–85.00
Broadcast seeding	Acre	—	4.50–11.00	Loader, rubber, small	Hour	50.00	35.00–50.00
Spraying, ground	Acre	6.00	5.00–12.00	Backhoe	Hour	55.00	35.00–65.00
Spreading lime, does not include lime	Acre	6.00	4.25–8.00	Excavator	Hour	75.00	75.00–130.00
Spreading dry fertilizer	Acre	6.00	4.25–8.00	Grader	Hour	60.00	50.00–75.00
Applying liquid fertilizer	Acre	6.00	6.00–6.00	Grade all	Hour	75.00	75.00–85.00
Combining corn, soybeans and small grains	Acre	25.00	22.50–35.00	Dragline	Hour	—	60.00–82.00
Hauling grain, local	Bushel	0.15	0.10–0.30	Crane	Hour	—	60.00–100.00
Hauling grain, long distance	Bushel	0.25	0.20–0.40	Scraper	Hour	—	50.00–130.00
Storing corn	Bu/Mo	0.05	0.05–0.05	Truck, single axle	Hour	30.00	28.00–40.00
Drying grain	Price/Pint	—	0.025–0.05	Truck, tandem axle	Hour	40.00, 45.00	40.00–58.00
Grinding feed	Hundredweight	0.90	0.90–0.90	Truck, tractor and trailer	Hour	60.00	50.00–135.00
				Bobcat	Hour	35.00, 45.00	35.00–50.00
				Snow removal	Hour	—	35.00–78.00
				Fence building (includes material and labor)			
				Post and rail, 3-rail	Foot	—	4.25–5.25
				Post and rail, 4-rail	Foot	—	4.65–6.00
				Oak board, 3-board	Foot	—	3.25–5.60
				Oak board, 4-board	Foot	—	3.70–6.20
				American wire	Foot	—	2.35–2.60
				Chain link, 4 feet high	Foot	—	3.60–7.80
				Chain link, 6 feet high	Foot	—	4.60–10.70
				Barbwire	Foot	—	1.65–3.00
				Posthole digging	Hole	—	1.00–1.80

*Southern Maryland includes Anne Arundel, Calvert, Charles, Prince George's and St. Mary's Counties.

**Typical charges are those that are observed most often. A dashed line in the typical column indicates that no one charge was more often observed than any other charge.

Table 7. Custom-Work Rates in Dollars in the Piedmont Area of Maryland, 1993*

Operation	Unit	Typical Charge**	Range in Charges	Operation	Unit	Typical Charge**	Range in Charges
Farm operations				Crimping	Hundredweight	0.80	0.65-0.90
Stalk cutting	Acre	10.00	6.00-15.00	Flaking	Hundredweight	—	0.65-0.90
Plowing, moldboard	Acre	15.00	12.00-25.00	Bushhogging	Hour	50.00	15.00-60.00
Plowing, chisel	Acre	12.00	10.00-20.00	Mowing, rotary	Acre	—	7.00-15.00
Disking, heavy	Acre	12.00	8.00-16.00	Mowing and conditioning hay	Acre	10.00	7.00-25.00
Disking, light	Acre	10.00	8.00-12.00	Raking hay	Acre	7.00	4.00-8.00
Disking with cultipacker or harrow	Acre	—	8.00-17.00	Baling hay	Bale	0.50	0.30-1.25
Harrowing with cultipacker	Acre	—	8.00-12.00	Baling straw	Bale	0.50	0.30-0.50
Harrowing without cultipacker	Acre	—	6.00-8.00	Mow, rake, bale hay, no haul	Bale	1.00	0.75-1.10
Cultipacking	Acre	—	5.00-9.00	Complete hay harvest	Bale	—	0.95-1.25
Subsoiling	Acre	—	10.00-25.00	Baling small, round bales	Bale	—	4.50-10.00
Corn planting, conventional without fertilizer	Acre	10.00	10.00-18.00	Baling large, round bales	Bale	8.00	6.00-16.50
Corn planting, conventional with fertilizer	Acre	12.00, 14.00	12.00-20.00	Field chop, haul, and fill silo	Ton	—	2.00-4.50
Corn planting, no till without fertilizer	Acre	12.00	10.00-18.00	Land clearing, grading and other			
Corn planting, no till with fertilizer	Acre	12.00	10.00-25.00	Dozer, large	Hour	—	88.00-120.00
Soybean planting, conventional without fertilizer	Acre	12.00	7.00-18.00	Dozer, medium	Hour	60.00, 80.00	56.00-82.00
Soybean planting, conventional with fertilizer	Acre	—	10.00-18.00	Dozer, small	Hour	50.00	50.00-60.00
Soybean planting, no till without fertilizer	Acre	15.00	12.00-22.00	Loader, track, large	Hour	85.00	50.00-85.00
Drilling small grains	Acre	10.00	6.00-20.00	Loader, track, medium	Hour	75.00	50.00-75.00
No-till drill seeding	Acre	—	12.00-24.00	Loader, track, small	Hour	65.00	40.00-71.00
Spraying, ground	Acre	6.00	4.00-10.00	Loader, rubber, large	Hour	—	55.00-90.00
Spraying, aerial	Acre	—	6.00-10.00	Loader, rubber, medium	Hour	—	40.00-70.00
Spreading lime, includes lime	Ton	24.00	21.00-25.00	Loader, rubber, small	Hour	—	25.00-65.00
Spreading dry fertilizer	Acre	5.00	4.00-6.50	Backhoe	Hour	50.00, 55.00	40.00-90.00
Applying liquid fertilizer	Acre	6.00	6.00-8.00	Excavator	Hour	90.00	75.00-95.00
Picking corn	Acre	—	22.00-26.00	Grader	Hour	80.00	44.00-80.00
Combining corn and soybeans	Acre	25.00	20.00-32.00	Grade all	Hour	—	59.00-90.00
Combining small grains	Acre	25.00	17.00-32.00	Scraper	Hour	90.00	80.00-110.00
Hauling grain, local	Bushel	0.15	0.10-0.25	Truck, single axle	Hour	35.00	24.00-40.00
Hauling grain, long distance	Bushel	0.20	0.15-0.25	Truck, tandem axle	Hour	40.00	40.00-50.00
Storing corn	Bu/Mo	0.03	0.02-0.03	Truck, tractor and trailer	Hour	75.00, 80.00	65.00-100.00
Storing soybeans	Bu/Mo	0.03	0.02-0.04	Bobcat	Hour	50.00	38.00-50.00
Storing small grains	Bu/Mo	0.03	0.02-0.05	Snow removal	Hour	50.00	40.00-60.00
Drying grain	Price/Pint	0.05	0.05-0.05	Fence building (includes material and labor)			
Grinding feed	Hundredweight	0.80	0.65-1.00	Post and rail, 3-rail	Foot	—	3.00-4.25
Mixing feed	Hundredweight	0.25	0.10-0.40	Post and rail, 4-rail	Foot	—	4.10-4.50
Grinding and mixing feed	Hundredweight	0.85	0.70-1.20	Oak board, 3-board	Foot	—	3.35-4.25
				Oak board, 4-board	Foot	—	3.85-4.60
				American wire	Foot	—	2.50-4.50
				Chain link, 4 feet high	Foot	—	3.60-6.00
				Chain link, 6 feet high	Foot	—	4.75-8.50
				Barbwire	Foot	—	1.00-4.50
				High tensile	Foot	—	1.00-1.50
				Posthole digging	Hole	3.00	2.00-8.00

*The Piedmont area of Maryland includes Baltimore, Carroll, Frederick, Harford, Howard, and Montgomery Counties.

**Typical charges are those that are observed most often. A dashed line in the typical column indicates that no one charge was more often observed than any other charge.

Table 8. Custom-Work Rates in Dollars in Western Maryland, 1993*

Operation	Unit	Typical Charge**	Range in Charges	Operation	Unit	Typical Charge**	Range in Charges
Farm operations				Bushhogging	Hour	—	25.00–30.00
Plowing, moldboard	Acre	15.00	9.00–16.00	Mowing, rotary	Acre	8.00	8.00–8.00
Plowing, chisel	Acre	—	13.50–14.00	Mowing and conditioning hay	Acre	10.00	10.00–10.00
Disking, heavy	Acre	10.00	8.00–11.00	Baling hay	Bale	—	0.45–0.50
Disking, light	Acre	—	7.00–9.00	Baling straw	Bale	—	0.35–0.50
Harrowing	Acre	7.00	7.00–7.00	Mow, rake, bale hay, no haul	Bale	0.75	0.75–0.75
Corn planting, conventional without fertilizer	Acre	12.00	10.00–13.00	Baling large, round bales	Bale	7.00	6.00–8.00
Corn planting, conventional with fertilizer	Acre	12.00	10.00–14.00	Field chop, haul, and fill silo	Ton	—	2.00–7.00
Corn planting, no till without fertilizer	Acre	12.00	10.00–15.00	Land clearing, grading, and other			
Corn planting, no till with fertilizer	Acre	12.00	10.00–16.00	Dozer, large	Hour	—	70.00–105.00
Soybean planting, conventional	Acre	—	10.00–12.00	Dozer, medium	Hour	—	45.00–95.00
Soybean planting, no till	Acre	15.00	15.00–15.00	Dozer, small	Hour	35.00	35.00–75.00
Drilling small grains	Acre	—	9.00–16.00	Loader, track, large	Hour	—	60.00–125.00
No-till drill seeding	Acre	15.00	15.00–15.00	Loader, track, medium	Hour	—	45.00–100.00
Spraying, ground	Acre	4.75, 6.25	4.75–7.50	Loader, track, small	Hour	—	40.00–85.00
Spreading dry fertilizer	Acre	5.00	4.00–5.50	Loader, rubber, large	Hour	—	80.00–100.00
Spreading lime, does not include lime	Ton	5.00	4.50–8.00	Loader, rubber, small	Hour	—	35.00–74.00
Applying liquid fertilizer	Acre	6.00, 7.00	4.70–7.50	Backhoe	Hour	35.00	35.00–60.00
Picking corn	Acre	—	24.00–25.00	Excavator	Hour	—	55.00–100.00
Combining corn	Acre	22.00	22.00–25.00	Grader	Hour	—	45.00–90.00
Combining soybeans	Acre	22.00	20.00–25.00	Scraper	Hour	—	75.00–100.00
Combining small grains	Acre	20.00	18.00–23.00	Truck, single axle	Hour	35.00	28.00–40.00
Hauling grain, local	Bushel	0.15	0.10–0.20	Truck, tandem axle	Hour	35.00	35.00–44.00
Storing grain	Bu/Mo	0.02	0.02–0.02	Truck, tractor and trailer	Hour	—	40.00–75.00
Drying grain	Price/Pint	0.03	0.025–0.025	Bobcat	Hour	—	22.00–50.00
Grinding feed	Hundredweight	—	0.30–0.75	Snow removal	Hour	35.00	35.00–35.00
Mixing feed	Hundredweight	0.25	0.25–0.25	Fence building (includes material and labor)			
Grinding and mixing feed	Hundredweight	0.75	0.60–0.75	Post and rail, 3-rail	Foot	—	3.75–5.00
Crimping	Hundredweight	0.75	0.35–0.75	Oak board, 3-board	Foot	—	3.30–4.50
Flaking	Hundredweight	—	0.35–0.75	Oak board, 4-board	Foot	—	3.70–5.00
				American wire	Foot	—	3.40–4.50
				Chain link, 4 feet high	Foot	—	3.70–4.00
				Chain link, 6 feet high	Foot	—	7.00–7.25
				Barbwire	Foot	—	2.00–3.75
				Posthole digging	Hole	1.50	1.50–1.50

*Western Maryland includes Allegany, Garrett, and Washington Counties.

**Typical charges are those that are observed most often. A dashed line in the typical column indicates that no one charge was observed more often than any other charge.

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