

Cost of Operating Farm Machinery

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COST OF OPERATING FARM MACHINERY (Eastern Canada)

W. KALBFLEISCH AND A. I. MAGEE*

INTRODUCTION

The estimated costs of operating farm machines, tractors, and horses, as shown in this bulletin, are based on machinery records of the Experimental Farms Service. Cost per unit of use for each machine is derived from actual, estimated or selected values.

Factors included in the estimated costs of tractors and machines are: depreciation, interest, housing, repairs, repair or maintenance labor, fuel and miscellaneous items such as oil and grease. Additional items are included in estimating the cost of operating horses, motor trucks and electric motors. The method used in computing the cost of operating machines; tractors, engines or motors; and horses is shown in tables 1, 3 and 5. Factors, rates and prices utilized in the estimates are stipulated in the tables or in the section dealing with the factors used in calculating costs.

Estimated costs of operating various farm machines appear in table 2. The figures are computed by the method shown in table 1. Estimated costs of operating various sizes of tractors and other power units are presented in table 4 and are calculated according to the method shown in table 3. Tractor or motor costs do not include the operator's wage. The first line listed for each tractor or motor does not include fuel and oil but subsequent lines include these items. Examples showing the estimated cost of farm operations are printed in table 6. In this table the costs of machinery, power, and labor are combined to obtain the cost of performing a farm operation, per 10-hour day.

Power, machinery and equipment inventory, investment and annual operating cost data are presented in table 7, 8 and 9. The inventories for 50-, 100- and 150-acre farms list equipment that might be used on these farms and are intended only as guides for estimating the total annual cost of power and machinery. The type, size and number of machines will vary from farm to farm.

All of the cost data presented are based on average cost of operating machinery and power units on individual farms. Because of variations in soil, size of fields, stoniness, maintenance of machines, skill of operators, prices of machines, fuel and feed, etc, the cost of using equipment and power on specific farms may be more or less than the average. This bulletin presents a method of computing machinery costs with examples for the cost of performing farm operations. To obtain more precise estimates all factors including prices, rates and assumptions should be adjusted to conform with local conditions of machine operation.

METHOD OF COMPUTING COSTS

Depreciation

Depreciation is the reduction in value of machines caused by obsolescence or wear, or both. The obsolescence or time factor is affected by the development of more efficient machines and consequently older models though unused, are usually not given the same value as new models. The deterioration or wear factor is affected by the amount of use, conditions of operation, and care of

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machines. Thus equipment which has been used normally has a lesser value than unused equipment. Although depreciation can be calculated by several methods there is no exact means of determining the true depreciation rate when it is not possible to obtain future prices and relative values. Machines may depreciate at a normal rate in a period of stable prices but when the price level falls the depreciation rate is usually higher. When prices rise the rate of depreciation is low.

A rate of depreciation has been used here for computing machinery costs, based on an assumed number of years of life for each type of equipment. In the case of tractors the life to discard or obsolescence has been considered as 7,500 to 8,500 hours at 500 to 600 hours per year or 15 years. Thus, the annual depreciation on a tractor valued at \$1,000 is $1/15$ or 6.66 per cent of \$1,000 or \$66.66. Horse-drawn or horse-type machines are depreciated in 20 years or 5 per cent; tractor-drawn or motor-driven machines 15 years or 6.66 per cent; garden tractors 10 years or 10 per cent; horses $12\frac{1}{2}$ working years or 8 per cent, electric motors 15 years, 6,000 hours or 6.66 per cent; motor trucks 15 years or 60,000 miles; and gas engines 15 years with an annual use of 100 hours or an annual depreciation rate of 6.66 per cent.

This method of determining depreciation does not take into consideration the wear or deterioration factor which would be involved if machines were extensively used each year. However, on practically all farms in Eastern Canada with 200 acres or less, most machines are used less than 100 hours or 10 days per year and many machines are used less than 50 hours per year. Therefore, the factor of deterioration or wear would be significant only when machines are used on particularly large farms or extensively used in custom operations. Tractors are the only units that might be affected by the wear factor. To operate a tractor 1,560 hours, however, means that it must work ten hours every day except Sunday for six months of the year without interruption.

Interest

It has been considered that when capital or money is used to purchase equipment an amount termed interest should be allowed for use of the capital. In other words, if money was borrowed to obtain equipment or if the equipment was purchased on time payments, an item is included on the costs to compensate for the interest charge. The assumed interest rate allowed is $2\frac{1}{2}$ per cent on the new cost of each machine.

Housing

In calculating machinery costs a charge has been included for the use of storage space in a garage or machine shed. The building charge has been estimated to be $\frac{1}{2}$ per cent of the price of each machine or a charge of 50 cents per year per \$100 worth of equipment. In the case of horses the housing charge used is \$8 per animal per year because of the greater cost of stables and storage space for feed.

Prices of Machines

All calculations are based on the average new cost of equipment as of January to March, 1953. As prices continually fluctuate, operating costs should be adjusted to the prevailing price of equipment. If the price of a horse-type hay mower listed at \$180 rises 10 per cent or \$18 to \$198, the cost per hour of use increases by 4 cents from 59 to 63 cents or an increase of 7 per cent.

Man Labor and Horse Costs

The wages or man labor charge used in computations is 60 cents per hour and is based on the average wage rate paid for labor on farms during 1952. As

with prices, wage rates vary from year to year, from season to season and from one district to another. The wages paid also depend on the qualifications of each worker. It is suggested, therefore, that costs be recomputed to correspond with wages paid on each farm. Since the labor used for maintenance or repair of machines is not a major factor in the total cost of performing a farm operation, a satisfactory adjustment can be made by substituting any desired wage rate in column 11 of table 6 to obtain a revised total cost per 10-hour day for each operation. Horse labor is charged at 30 cents per hour at 500 hours use per year as calculated in table 5.

Repair Costs

Cost of repair parts has been expressed in dollars per 100 hours of machine use in order to correspond with the use or wear of machines. Values used in computing costs are listed with each machine.

Repair and Machine Maintenance Labor

The amount of labor used for maintaining machines is presented as hours per 100 hours of machine operation to correspond with the use or wear on each type of machine. For additional details refer to the section dealing with other factors used in calculating costs.

Annual Use of Machines

Annual costs of operating farm machines include depreciation, interest and housing, repairs, repair labor, fuel or feed and miscellaneous minor items of expense. Three of these main factors, namely, repairs, repair labor and fuel or feed vary according to the use of machines. However, depreciation, interest and housing remain relatively constant regardless of machine use. Moreover, these



Figure 1.—Some farm operations involve a large amount of manual labor and a relatively limited amount of equipment.

latter three charges are normally the largest items in the annual cost of operating equipment. Consequently, the cost of operating machines decreases as the units of work per year increase.

The effect of annual use of machines on costs may be noted in table 1 which contains computed costs for a horse-type hay mower. Corresponding calculated costs for this machine with varying annual use are as follows: one acre or hour per year, cost per hour \$14.58; 20 hours, 89 cents; 35 hours, 59 cents per hour; 75 hours, 37 cents; and 150 hours per year, 27 cents per hour. When this mower is used for over 150 acres or hours per year the additional decrease in cost per acre would be small or negligible as the cost of repairs and labor become the major items in the annual cost. In the case of large machines where a high initial investment is involved the cost per hour will continue to decrease considerably when the annual use exceeds 150 hours.

Custom Use and Custom Rates for Machinery

By increasing the size of the farm business or by custom or co-operative use of machines, the annual use of machines can be increased, and the cost per ton or acre, etc., can be reduced accordingly. The custom or co-operative use of machines can benefit both the owner and the renter of the equipment if the equipment is exchanged on a sound working agreement at a fair charge. In the use of equipment, however, it is important that one person be responsible for the maintenance and repair of machines.

The estimated costs of operating farm machinery as presented in this publication are computed costs of using machines under average conditions on individual farms and are not proposed custom rates. However, by adjusting various factors to correspond with local rates the data presented may be used as a guide for custom charges. In many districts custom rates have been established which naturally form an effective guide for farmers who are starting to rent out or hire equipment. When considering custom rates it should be noted that calculations do not include the following factors: cost of moving farm equipment from farm to farm, profit, risk, insurance, compensation for time required to arrange custom contracts, and major delays caused by weather conditions.

DIRECTIONS FOR USING TABLES

Cost of Operating Machines (Table 2)

Machine costs in this table contain estimated costs of farm equipment without the cost of power or operators' wage. Costs are presented according to the annual use of machine as the cost varies with the annual use. In all cases the cost of each machine is shown as the cost per 10-hour day.

Example—To determine the cost of using a two-furrow standard tractor plow which is used 75 hours per year under average conditions of operation.

Under tractor plows in the third line a 2-furrow standard plow is listed. An annual use of 75 hours per year is shown in column (11) with a corresponding cost of \$4.28 per 10-hour day or 43 cents per hour. Where the cost per acre is required the cost per 10-hour day is divided by the rate of operation per day. When four acres per day are plowed it costs $\$4.28 \div 4$ or \$1.07 per acre. If the rate is increased to six acres per day the cost per acre is decreased to $\$4.28 \div 6$ or 71 cents.

If the annual use is increased to 150 hours the cost per 10-hour day decreases to \$2.99 (column 13, table 2) and results in a cost per acre of 75 cents and 50 cents for rates of operation of 4 and 6 acres per day, respectively.

Tractor, Garden Tractor, Motor Truck, Motor and Engine Cost (Table 4)

Tractors have been divided into five classes, namely, one-plow tractors (7 to 10 drawbar H.P.), 2-plow tractors (10 to 15 H.P.), 2 to 3 plow tractors (15 to 20 H.P.), 3-plow tractors (20 to 25 H.P.), 3 to 4 plow tractors (25 to 30 H.P.), as listed in table 4. Tractor costs without fuel, oil, and operators' wage are shown in the first line opposite each tractor class, and tractor costs with fuel and oil but without operators' wage are shown in subsequent lines.

Tractor costs, garden tractor costs, electric motor and engine costs are listed as the cost per 10-hour day of operation. Motor truck costs are listed as a cost per mile.

Example A—To determine the cost per 10-hour day of a tractor which would cost about \$2,000 when the tractor is operated approximately 500 hours per year and when it uses 15 gallons of gasoline per day.

A tractor listed in table 4 is priced at \$2,000. In column (10) a use of 500 hours is listed and column (11) shows the cost per 10 hours of operation. Opposite 15 gallons of fuel the price per 10-hour day is listed in column (11) as \$10.33 or \$1.03 per hour. This is the cost without the operators' wage.

Example B—To determine the cost of operating the same tractor as in example A that is using 10 gallons of fuel instead of 15 gallons.

It will be found that a fuel consumption of 10 gallons is not listed for this tractor in table 4. The cost per 10-hours operation is, however, listed without fuel in the first line opposite this tractor size in column (11) as \$5.38. If 10 gallons of fuel is used and is priced at 35 cents per gallon instead of the average



Figure 2.—Where equipment is extensively used the machinery charge is a major factor and the labor cost is a relatively small item in the total cost of performing farm operations.

of 30 cents, then the daily fuel cost is \$3.50. The oil is approximately 10 per cent of the fuel or 35 cents. The total cost is then $\$5.38 + \$3.50 + \$.35 = \9.23 or about 92 cents per hour without operator.

Cost of Farm Operations (Table 6)

The machine cost, power cost, and operators' wage are combined in table 6 to obtain a total estimated cost of using equipment in farm operations. To compile this table machine costs are drawn from table 2, tractor costs from table 4, and horse labor costs from table 5. Since machines, power units and operators can be combined in many different combinations under various conditions, this table should be considered purely as a guide example. The combined data in this table are based on the rate of operation which is stipulated in column 6. It is suggested that basic information and actual rates of operation be used when calculating the costs of operation on each individual farm. The wage rate used in this table is 60 cents per hour except in those marked examples under tractor plowing that show wage rates of 40 to 70 cents per hour.

Example—To determine the cost of plowing with a two-furrow standard 10''-12'' tractor plow which is used for 75 hours a year when using a tractor value at \$2,000. This tractor consumes 12 gallons of fuel per 10 hours of work where the tractor is operated 500 hours per year and plows at a rate of 5.5 acres per 10-hour day. In addition, to find the cost of the equipment being used and, also, the number of man hours of work to plow one acre.

This plow is listed on line 6 in table 2, which shows the price of the plow as \$200 (column 3) and the cost per 10-hours operation as \$4.28 in column 11 for 75 hours of use per year.

The tractor costs are listed for this tractor in table 4, line 13 which shows the price of the tractor as \$2,000 (column 3) and the cost per 10-hours operation for 500 hours work per year with 12 gallons of fuel is \$9.34 (column 11, line 13).

A similar combination of equipment is shown as an example in line 32, table 6 as a tractor plowing operation.

Investment in equipment is $\$200 + \$2,000 = \$2,200$. (See also column 4, table 6.) Cost of the plow, tractor and also wages at 60 cents per hour for 10 hours of operation is $\$4.28 + \$9.34 + \$6.00 = \19.62 or a cost of about \$1.96 per hour. (See also columns 9, 10, 11 and 12, table 6.) Where 5.5 acres are plowed per 10 hours, the cost per acre is $\$19.62 \div 5.5 = \3.57 per acre. When a man works 10 hours to plow 5.5 acres, the number of hours of man work per acre is $10 \div 5.5 = 1.8$ hours (See column 14, table 6).

In the above example only one tractor, plow and man are used. Under an item of forage crop harvester operation several machines are used and the crew may consist of one to ten men.

Machinery Investment and Annual Operating Costs (Tables 7, 8 and 9)

Equipment inventory and annual operating cost tables are based on farms having approximately 50, 100 and 200 acres of land. The list of equipment for each farm size is purely an assumed selection of machines to give some indication of the cost of operating machinery and equipment.

Each table contains three examples, the first based on a limited amount of equipment and the other examples with additional or specialized machines. The annual cost of each machine has been chosen to correspond with the amount of machine use on the area of land involved. Data for compiling these tables are obtained from tables 2, 4, 5 and 6.

MISCELLANEOUS FACTORS USED IN CALCULATING COSTS

- Feed grain (at assumed production cost) 2c per pound.
 Hay (at assumed production cost) \$15 per ton.
 Bedding (at assumed production cost) \$10 per ton.
 Harness: assumed cost per horse \$6 per year.
 Manure per ton: \$1.50.
 Fuel cost: gasoline 30c per gallon.
 Oil and grease cost assumed as 10 per cent of the fuel cost.
 Electric power: 2c per kilowatt hour.
 Twine for binders, 2.5 lb. per acre, at 30c per lb.
 Twine for balers, 3.4 lb. per ton, at 30c per lb.
 Baling wire 7.5 lb. per ton at 15c per lb.
 Assumed yield of grass and legume crop, 5 tons per acre.
 Assumed yield of corn, 15 tons per acre.
 Tire repairs and replacements are included in repair costs for motor truck.
 Tire repairs but not replacements are included for tractor tires.
 Insurance is not included for tractors or farm machines but is included at \$25 per year for motor trucks.
 Road licence is not included for tractors but is included for 1/2—3/4 ton trucks at \$15 per year and \$35 per year for 1 1/2 ton trucks.
 Man labor—based on Dominion Bureau of Statistics average wage during January, May, and August, 1952, of \$6.13 per day. For calculation purposes an assumed wage of 60c per hour has been used.

ABBREVIATIONS USED IN TABLES

An.....	Annual	M.....	Mounted on tractor
Bus.....	Bushels	m.....	Mile or per mile
E.....	Auxiliary Engine	M.L.....	Medium load
Ec.....	Electric type	N.C.....	New cost
E.H.....	Extra Heavy load or large fuel consumption	P.....	Plow
Est.....	Estimated	2P.....	Two plow, etc.
Fert.....	Fertilizer type or attachment	p.t.o.....	Power-take-off
2f.....	Two furrow, etc.	P-T.....	Plow tractor
Gal.....	Gallon or gallons	R.....	Rubber
H.....	Horse or horse type	S.....	Standard Type
H.L.....	Heavy load	Sec.....	Sections
H.P.....	Horse power	Semi.....	Semi-mounted
Hr.....	Hour	Sgle.....	Single
Hrs.....	Hours	S.P.....	Self Propelled
K.W.H.....	Kilowatt hours	T.....	Tractor or tractor type
L.....	Loader attachment	Tand.....	Tandem
Lb.....	Pound or pounds	Tn.....	Ton
L.L.....	Light load or light fuel consumption	Tns.....	Tons
		T.T.....	Track type tractor
		Wg.....	Wagon or wagons

TABLE 1.—METHOD OF CALCULATING MACHINE COSTS*

Estimated Cost of Operating a Hay Mower, Horse Type, 6' Cut

Factors	Annual Use in Units Per Year		
	20 Hours or 20 Acres	35 Hours or 35 Acres	75 Hours or 75 Acres
	\$ cts.	\$ cts.	\$ cts.
Depreciation: $\frac{\text{New Cost}}{\text{Est. life}} = \frac{180}{20}$	9 00	9 00	9 00
Interest: $2\frac{1}{2}\%$ of New Cost = $\frac{2.5}{100} \times 180$	4 50	4 50	4 50
Housing: $\frac{1}{2}\%$ of New Cost = $\frac{.5}{100} \times 180$	90	90	90
Repair Cost: Repair Cost per 100 hrs. use $\times \frac{\text{hrs. of use}}{100} =$			
$9.50 \times \frac{\text{hrs. of use (20, 35, or 75)}}{100}$	1 90	3 33	7 13
Repair Labor: Maintenance Labor in hrs. per 100 hrs. use \times Wage Rate \times $\frac{\text{hrs. of use}}{100} = 13.2 \times .60 \times \frac{\text{hrs. of use (20, 35 or 75)}}{100}$	1 58	2 77	5 94
Total Annual Cost	17 88	20 50	27 47
Cost per 10 hr. day	8 94	5 86	3 66
Cost per Acre	89	59	37

*1: Refer to the section which stipulates the factors used in calculating costs and also to explanation of tables in the text.

2: The cost of operation of various machines is presented in Table 2.

TABLE 2.—ESTIMATED COST OF OPERATING MACHINES

Machine	Size	Approx. New Cost 1953	Repair Cost per 100 hrs. use	Maintenance Labor per 100 hrs. use	Cost per 10 Hour Day According to Annual Use									
					(6) 5 hrs.	(7) 10 hrs.	(8) 20 hrs.	(9) 35 hrs.	(10) 50 hrs.	(11) 75 hrs.	(12) 100 hrs.	(13) 150 hrs.	(14) 200 hrs.	
Moldboard Plow Horse—														
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
Walking.....	7-9"	30	1 80	1 5						0 59	0 51	0 43*	0 39	
Sulky.....	8-9"	150	4 50	2 9				3 03	3 03	2 22	1 83*	1 42	1 42	
Gang plow.....	7-9"	100	4 30	3 0				2 21	2 21	1 67	1 40*	1 15	1 15	
Moldboard Plows Tractor—														
1 furrow M.....	9-14"	80	5 00	5 6					2 38	1 87*	1 61	1 35	1 35	
2 furrow M.....	10-12"	160	8 00	5 7				4 23	4 23	3 20	2 69*	2 17	1 92	
2 furrow S.....	10-12"	200	12 00	8 4				5 57	5 57	4 28*	3 64	2 99	2 96	
2 furrow S.R.....	10-12"	260	17 00	8 4						5 05*	4 22*	3 38	2 96	
3 furrow S.....	10-12"	280	17 00	10 6				7 75	7 75	5 94*	5 04	4 14	4 14	
3 furrow S.R.....	10-12"	350	17 50	11 3				9 19	9 19	6 94*	5 81*	4 68	4 68	
4 furrow S.....	10-12"	380	22 00	13 7						7 92	6 69*	5 47	4 86	
1 furrow breaker.....	18"	400	8 00	7 7							5 13	3 84	3 19*	
Disk Plows—														
1 furrow T.M.....	8-10"	110	3 00	5 3				3 65	2 74	2 04*	1 68			
2 furrow H.S.....	8-10"	250	3 00	5 3				7 52	5 45*	3 84*	3 03			
2 furrow T.S.....	8-10"	300	3 30	5 3			15 14	8 93	6 44*	4 52				
3 furrow T.S.....	8-10"	400	7 00	11 6					9 12	6 55*	5 26	3 97		
One way T.....	3'-4'	280	7 00	6 6			14 62	8 83	6 51*	4 70	3 80			
One way T.....	5'-6'	500	15 00	8 8			26 18	15 83	11 69*	8 47				
One way T.....	8'-10'	700	20 00	11 0			36 47	21 98*	16 18	11 68				
One way (Seeder) T.....	8'-10'	870	25 00	19 1			45 67	27 66*	20 45	14 85				
Rotary plow T.M.....	4'	750	25 00	20 0			39 95	24 30	18 20*	13 35				
TILLAGE MACHINES														
Harrows—														
Disk, Sgle-T.M.....	5'	110	4 50	3 7			5 99	3 71*	2 80	1 20				
Disk, Sgle-H.S.....	6'	80	2 00	2 5			3 55	2 18	1 63*					
Disk, Sgle-H.S.....	8'	110	3 00	3 8			4 93	3 04	2 29*	1 70				
Disk, Tand.H.....	5'-6'	220	3 50	5 0			7 85	4 77	3 53*	2 57				
Disk, Tand.T.....	7'-8'	220	4 00	6 2			11 40	6 84	5 02*	3 61				
Disk, Tand.T.....	10'	340	6 00	7 3			17 46	10 42	7 61*	5 42				
Disk, Offset, T.....	7'	290	4 50	6 6			14 85	8 85	6 45*	4 58				
Stalk cutter, H.....	1 row	100	2 00	3 8			4 43	2 71*	2 03	1 49				
Stalk cutter, H.....	2 row	140	3 30	5 7			6 27	3 87*	2 91	2 17				
Stalk shredder, T.....	2 row	500	15 00	10 0			26 25	15 90*	11 76	8 54				

Broadcast seeder, H.....	100	6 00	12 5	17 36	9 35*	5 35	3 64							
Vegetable planter, 1 Row	50	2 00	3 2	8 20	4 39*	2 39								
Vegetable planter, T.M.....	170	3 50	8 0	33 68	17 25*	9 04	5 52							
T transplanter, H.....	200	10 00	18 5	34 12	18 11	10 11*	6 68							
Beet drill, Fert. H.....	250	7 50	15 0	41 66	21 65	11 65*	7 37							
Beet drill, Fert. T.....	400	8 00	16 0		40 40	21 08*	12 80							
Harvesting Machines—														
Mower, H.....	180	9 50	13 2	30 56	16 04	8 94	5 86*							
Mower, T.M.....	110	10 00	15 0			7 22	4 94			3 66	2 70	2 46		
Mower, Semi T.M.....	220	13 00	20 0				8 57			5 33				
Mower, T.M.....	260	16 00	25 8				10 33			4 63				
Rake, dump, H.....	100	4 00	6 0		8 76	4 76*	3 05			6 50				
Rake, side, H.....	260	9 00	8 0		22 18	11 78	7 32*							
Rake, side, P.T.O.....	450	12 00	15 0		45 57	23 84*	14 52							
Hay tedder, H.....	120	6 00	10 5	20 44	10 83*	6 03	3 97							
Hay sweep, T.M.....	160	9 00	11 8			9 34	6 03*			3 67				
Silage, sweep, T.M.....	160	5 00	8 0			8 71	5 40*			3 04				
Hay sweep, T.M.....	400	15 00	20 0			22 02	13 75			7 85				
Hay loader, H.....	230	6 00	9 3	19 56		10 36	6 41*							
Hay loader, cyl., H.....	290	11 00	9 3	24 86		13 26	8 29*							
Hay loader, bar, H.....	400	5 00	9 5			17 07	10 21*							
Hay press, E.....	800	3 50	4 5							5 34				
Hay press, E.....	1250	3 50	4 5							10 90				4 48
Pickup baler, p.t.o.....	1500	19 00	20 0							16 90				8 70
Pickup baler, E.....	2000	24 00	25 0							22 42*				12 76
Pickup baler, E.....	2500	28 00	25 0							29 70				16 80
Corn binder, H.....	500	28 00	25 0							36 40				20 40*
Corn binder, p.t.o.....	710	25 00	19 0		42 20	22 20*	13 63							5 78*
Corn binder, p.t.o. L.....	850	20 00	19 0		72 23	37 94	23 24*							8 70
Corn harvester, p.t.o.....	1000	28 00	42 5				26 60			14 09				12 76
Forage blower, T.....	390	5 00	20 0				32 49			18 23*				16 80
Silo filler, T.....	450	8 00	14 0				12 46*			6 72				20 40*
Silo filler, T.....	650	20 00	37 0				14 06			7 44				5 99
Corn picker, p.t.o.....	1030	8 00	11 5							12 59*				8 41
Corn picker, p.t.o.....	1600	10 00	16 5							14 76				8 12
Forage harvester, p.t.o.....	1500	35 00	32 0				46 82			22 60				12 29
Forage harvester, p.t.o.....	2000	50 00	32 0				62 12			24 74				9 72
Forage harvester, E.....	3000	50 00	32 0							32 68*				
Grain binder, H.....	550	11 00	18 0				14 80			26 24				26 24
Grain binder T., p.t.o.....	670	20 00	18 0				21 57			35 90*				
Combine, T., p.t.o.....	1200	23 00	33 0							8 05				6 58
Combine, T., p.t.o.....	1500	30 00	33 0							11 71				9 55
Combine, T.E.....	2000	40 00	56 0							19 74				12 01
Combine, S.P.....	4500	45 00	56 0							24 30				14 64
Potato digger, H.....	300	10 00	9 5							33 12				20 24
Potato digger, T., p.t.o.....	480	15 00	12 8							65 82				17 02
Potato digger, T., p.t.o.....	890	25 00	30 0							47 86				29 60*
Potato harvester, T., p.t.o. (digger-bagger)	1500	20 00	23 4							4 76				36 84
Beet lifter, H.....	120	1 80	3 6							8 45				
Beet lifter, T.M.....	170	2 60	5 9							6 91				
Beet lifter, T.M.....	2700	3 00	6 7							12 90				
Beet harvester, T.M.....		75 00	35 0							15 80				
										22 80				
										1 68				
										2 16*				
										2 89*				
										3 99				
										32 40				
										17 87*				
										13 00				
										1 04*				
										88				
										1 77				
										2 34				
										1 80				
										26 99				
										44 38				

TABLE 2.—ESTIMATED COST OF OPERATING MACHINES—Concluded

Machine	Size	Approx. New Cost 1953	Repair Cost per 100 hrs. use	Maintenance Labor per 100 hrs. use	Cost per 10 Hour Day According to Annual Use									
					(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
					5 hrs.	10 hrs.	20 hrs.	35 hrs.	50 hrs.	75 hrs.	100 hrs.	150 hrs.	200 hrs.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
Miscellaneous—														
Manure spreader, H.	50 bus.	350	4 00	5 8				8 75	6 35	4 48*	3 55			
Manure spreader, H.	60 bus.	400	5 00	9 0					7 44	5 31*	4 24	3 17		
Manure spreader, p.t.o.	60 bus.	500	5 00	8 0						7 42	5 81*	4 20	3 40	
Distributor, Vert. H.	8'	190	10 00	23 3			10 00	6 74*	5 44	4 43				
Fanning mill, Hand		100	1 80	3 0			8 36*	2 65	46 97*	34 09				
Thresher, grain T.	22 x 38	2000	50 00	55 5			104 93	63 53	23 66*	17 22	14 00			
Thresher, grain, T.	18 x 26	1000	20 00	39 0				31 94	3 21	2 63*	2 34			
Feed grinder, T.	6"	90	8 00	11 2				3 95	6 68	5 52	4 94			
Feed grinder, T.	10"	180	20 00	20 0				8 17*	5 66	3 99*	3 15	2 31		
Feed grinder, Ec.	3 H.P.	260	4 50	3 1			11 84*	4 94						
Oat roller, T.	2 H.P.	100	8 00	23 0			7 01		7 71					
Feed mixer, 3 H.P.	1/2 ton	250	15 00	23 0			14 96	9 78						
Feed mixer, 5 H.P.	1 ton	400	24 00	19 0			27 03*	14 58	11 27					
Hammer mill, T.	18 H.P.	250	20 00	23 0			42 18*	10 28	8 21*					
Sprayer, barrel	40 gal.	100	10 00	23 0			27 53	4 67	3 98*					
Sprayer, traction, H.	100 gal.	250	12 00	27 0			10 38	8 53*	6 82	5 49				
Sprayer, power, H.	2-3 H.P.	750	12 50	32 0			12 82	23 87	17 66	12 83*	10 42	14 29		
Sprayer, power, H.	5-6 H.P.	1300	40 00	32 0					31 04	22 66	18 48*			
Sprayer, Weed, T.M.	20' boom	250	15 00	10 0			26 25	9 00*	6 93	12 40				
Duster	6 Row	500	12 00	25 0				26 80	16 50*					
Manure loader, T.M.	Heavy	350	17 50	25 0			70 88	12 91						
Manure loader, T.M.	Light	200	9 00	25 0			21 72	7 92*	6 26					
Estimated Cost per 10 Hour Day According to Annual Use														
Machine	Size	Approx. New Cost 1953	Repair Cost per 100 hrs. use	Maintenance Labor per 100 hrs. use	100 hrs.	150 hrs.	250 hrs.	500 hrs.	750 hrs.	1000 hrs.				
					\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Wagon, Std., H.		200	0 30	0 4			0 69	0 37	0 27*	0 21				
Wagon, R., H.		300	35	4			1 02	54	38*	30				
Hay rack, H.		75	30	4			29*	17						
Combination rack, H.		125	1 00	2			0 51	31	25*	21				
Wagon, rack and unloader.		500	10 00	2 0			3 05	2 09	1 76	1 60				
Sleigh, H.		100	60	3			0 40	24*	18					

					Annual Use	Estimated Annual Cost
Milking machine.....	Double Including 56 K.W.H. per cow per year at 2c per K.W.H.	325	1 20	4	750 hrs.	\$ 42 20 cts.
Pipeline milker.....	2 stall	1500	1 35	4	20 cows	64 60
Pipeline milker.....	3 stall	2000	2 00	5	750 hrs.	166 80
Milk cooler.....	4 cans (Including electric power at 2/3 K.W.H. per can)	450	25	2	1000 hrs.	210 45 47 20
Milk cooler.....	6 cans (Including electric power at 2/3 K.W.H. per can)	520	15	1	1500 cans 1000 hrs.	67 20 52 30
Gutter cleaner, 3 H.P.....	25 cows (Including electric power at 2/3 K.W.H. per can)	1500			2000 cans	79 00
Ventilation fan 1/4 H.P.....	25 cows	250	0 08	0 2	100 hrs.	25 00
Ventilation fan, 2/3 H.P.....	60 cows	600	0 09	0 3	3000 hrs.	30 10
Circular saw, T.....		130	4 00	10 0	3000 hrs.	64 90
Com elevator, T.....		350	2 50	6 0	50 hrs.	17 56
Bale elevator, E.....		450	10 00	31 0	100 hrs.	39 91
Potato grader.....		400	5 00	8 0	20 hrs.	49 22
Apple grader.....		500	3 00	5 0	75 hrs.	45 99
Cream separator, Hand.....	500 lb.	150	55	5	100 hrs.	54 30
Cream separator, Ec.....	750 lb. (Including 50 K.W.H. at 2c per K.W.H.)	230	90	1 5	150 hrs.	15 77 24 92 25 92
Farm welder, Ec.....	20-200 Amp. (Including power at 5 K.W.H. per hour)	250	1 00	1 5	35 hrs.	24 77 30 27
Water system.....	350 gal. (Including power 300 K.W.H.—no plumbing included)	200	25	9	1000 hrs.	27 22 33 22
Animal clippers.....	Hand	35	50	2 0	20 hrs.	3 72
Animal clippers.....	Ec.	50	3 50	2 5	20 hrs.	5 83
Tools (hand).....		100				9 00

* Denotes average annual use.

TABLE 3.—METHOD OF CALCULATING TRACTOR COSTS

Estimated Cost of Operating a 2-3 Plow Tractor (15-20 HP) According to Annual Use

FACTORS	Estimated Cost per Unit		
	250 hrs. per year	500 hrs. per year	750 hrs. per year
	\$ cts.	\$ cts.	\$ cts.
Depreciation: $\frac{\text{New Cost}}{\text{Est. Life}} = \frac{2000}{15}$	133 33	133 33	133 33
Interest: $2\frac{1}{2}\%$ on new cost = $\frac{2.5}{100} \times 2000$	50 00	50 00	50 00
Housing = $\frac{1}{2}\%$ on new cost = $\frac{.5}{100} \times 2000$	10 00	10 00	10 00
Repair Cost:			
$\frac{\text{Repair Cost per 100 hrs. use}}{100} \times \text{hrs. use}$			
$= \frac{8.00}{100} \times \text{hrs. of use (250, 500 or 750)}$	20 00	40 00	60 00
Repair Labor:			
$\frac{\text{Maintenance labor in hrs. per 100 hrs. use}}{100} \times \text{wage rates} \times \text{hrs.}$			
of use = $12.0 \times .60$ hrs. of use (250, 500, or 750).....	18 00	36 00	54 00
Total Annual Cost (fuel and operations wage not included)..	231 33	269 33	307 33
Cost per 10 hr. day (fuel and operations wage not included)..	9 25	5 38	4 10
Fuel and Oil Costs:			
Assumed fuel consumption 12 gal. @ 30c.....	3 60	3 60	3 60
Oil and grease (assumed cost) 10% of fuel cost.....	36	36	36
Total Cost per 10 hr. day with fuel and oil (Operators wage not included).....	13 21	9 34	8 06

*1: Refer to the sections which stipulate the various factors used in calculating costs and also to the explanations of tables in the text.

2: The cost of operation of various sized tractors is presented in Table 4.

TABLE 4.—ESTIMATED COST OF OPERATING FARM TRACTORS, MOTOR TRUCKS, ELECTRIC MOTORS AND GAS ENGINES

Motor Type and Size		Estimated cost per unit based on Annual Use										
		Tractor cost per 10-hr day					Truck cost per mile					
		Annual Use	Cost \$	Annual Use	Cost \$	Mainten- ance labor in hrs per 100 hrs use	Repair cost per 100 hrs use	New Cost	Size H.P. or tons	Annual Use	Cost \$	Annual Use	Cost $
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Tractor R 1 Plow (no fuel or oil)..... With fuel on light load at 3 gals per 10 hrs..... With fuel on medium load at 5 gals per 10 hrs..... With fuel on heavy load at 6 gals per 10 hrs..... With fuel on extra heavy load at 7 gals per 10 hrs.....	7 to 10	\$1000	4-00	7-0	125 hrs	8 55 9 54 10 20 10 53 10 86	250 hrs " " " " " "	4 68 5 67 6 33 6 66 6 99	500 hrs " " " " " "	2 75 3 74 4 40 4 73 5 06	750 hrs " " " " " "	2 11 3 10 3 76 4 09 4 42
Tractor R 2 Plow (no fuel or oil)..... With fuel on light load at 5 gals per 10 hrs..... With fuel on medium load at 7 gals per 10 hrs..... With fuel on heavy load at 9 gals per 10 hrs..... With fuel on extra heavy load at 12 gals per 10 hrs.....	10 to 15	\$1500	6-00	10-0	125 hrs	12 79 14 44 15 10 15 76 16 75	250 hrs " " " " " "	7 00 8 63 9 31 9 97 10 96	500 hrs " " " " " "	4 10 5 75 6 41 7 07 8 06	750 hrs " " " " " "	3 13 4 78 5 44 6 10 7 09
Tractor R 2-3 Plow (no fuel or oil)..... With fuel on light load at 9 gals per 10 hrs..... With fuel on medium load at 12 gals per 10 hrs..... With fuel on heavy load at 15 gals per 10 hrs..... With fuel on extra heavy load at 18 gals per 10 hrs.....	15 to 20	\$2000	8 00	12 0	125 hrs	16 98 19 95 20 94 21 93 22 92	250 hrs " " " " " "	9 25 12 22 13 21 14 20 15 19	500 hrs " " " " " "	5 38 8 35 9 34 10 33 11 32	750 hrs " " " " " "	4 10 7 07 8 06 9 05 10 04
Tractor R 3 Plow (no fuel or oil)..... With fuel on light load at 10 gals per 10 hrs..... With fuel on medium load at 14 gals per 10 hrs..... With fuel on heavy load at 18 gals per 10 hrs..... With fuel on extra heavy load at 22 gals per 10 hrs.....	20 to 25	\$2500	9 00	15 0	250 hrs	11 46 14 76 16 08 17 40 18 72	500 hrs " " " " " "	6 63 9 93 11 25 12 57 13 89	750 hrs " " " " " "	5 02 8 32 9 64 10 96 12 28	1000 hrs " " " " " "	4 22 7 52 8 84 10 16 11 48
Tractor R 3-4 Plow (no fuel or oil)..... With fuel on light load at 12 gal per 10 hrs..... With fuel on medium load at 16 gals per 10 hrs..... With fuel on heavy load at 20 gals per 10 hrs..... With fuel on extra heavy load at 25 gals per 10 hrs.....	25 to 30	\$3000	9 00	15 0	250 hrs	13 61 17 57 18 89 20 21 21 86	500 hrs " " " " " "	7 82 11 78 13 10 14 42 16 07	750 hrs " " " " " "	5 88 9 84 11 16 12 48 14 13	1000 hrs " " " " " "	4 91 8 87 10 19 11 51 13 16
Tractor Track 3-4 Plow (no fuel or oil)..... With fuel on light load at 8 gals per 10 hrs..... With fuel on medium load at 12 gals per 10 hrs..... With fuel on heavy load at 16 gals per 10 hrs..... With fuel on extra heavy load at 20 gals per 10 hrs.....	25 to 30	\$4500	11 00	22 0	500 hrs	11 11 13 75 15 07 16 39 17 71	1000 hrs " " " " " "	6 77 9 41 10 73 12 05 13 37	1500 hrs " " " " " "	5 32 7 96 9 28 10 60 11 92	2000 hrs " " " " " "	4 59 7 23 8 55 9 87 11 19
Garden Tractor (no fuel or oil)..... With fuel on light load at 4 gals per 10 hrs..... With fuel on medium load at 1 gal per 10 hrs..... With fuel on heavy load at 1½ gals per 10 hrs..... With fuel on extra heavy load at 2½ gals per 10 hrs.....	¾ to 1½	\$350	4 00	10 0	50 hrs	10 10 10 35 10 43 10 60 10 93	100 hrs " " " " " "	5 55 5 80 5 88 6 05 6 38	200 hrs " " " " " "	3 28 3 53 3 61 3 78 4 11	300 hrs " " " " " "	2 52 2 77 2 85 3 02 3 35

TABLE 4.—ESTIMATED COST OF OPERATING FARM TRACTORS, MOTOR TRUCKS, ELECTRIC MOTORS AND GAS ENGINES—Continued

Motor Type and Size	Estimated cost per unit based on Annual Use													
	Tractor cost per 10-hr day						Truck cost per mile						Annual Use	Cost \$
	Annual Use	Cost \$	Annual Use	Cost \$	Annual Use	Cost \$	Annual Use	Cost \$	Annual Use	Cost \$	Annual Use	Cost \$		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
Garden Tractor (no fuel or oil)..... With fuel on light load at 1 gal per 10 hrs..... With fuel on medium load at 2 gals per 10 hrs..... With fuel on heavy load at 3 gals per 10 hrs..... With fuel on extra heavy load at 5 gals per 10 hrs.....	2 to 3	\$450	6 00	15 0	50 hrs " " "	13 20 13 53 13 86 14 19 14 85	100 hrs " " "	7 35 7 68 8 01 8 34 9 00	200 hrs " " "	4 43 4 76 5 09 5 42 6 08	300 hrs " " "	3 45 3 78 4 11 4 44 5 10		
Garden Tractor (no fuel or oil)..... With fuel on light load at 2 gals per 10 hrs..... With fuel on medium load at 3 gals per 10 hrs..... With fuel on heavy load at 5 gals per 10 hrs..... With fuel on extra heavy load at 8 gals per 10 hrs.....	5 to 6	\$600	9 00	20 0	50 hrs " " "	17 70 18 36 18 69 19 35 20 34	100 hrs " " "	9 90 10 56 10 89 11 55 12 54	200 hrs " " "	6 00 6 66 6 99 7 65 8 64	300 hrs " " "	4 70 5 36 5 69 6 35 7 34		
Motor Truck..... With fuel at 15 miles per gal.....	$\frac{1}{2}$ - $\frac{3}{4}$ ton	\$2000	50 00	16 5	2000 m "	0 15 0 17	4000 m "	0 09 0 11	6000 m "	0 07 0 09	8000 m "	0 06 0 08		
Motor Truck..... With fuel at 12 miles per gallon.....	1 $\frac{1}{2}$ -ton	\$2500	55 00	20 0	2000 m "	0 18 0 21	4000 m "	0 11 0 14	6000 m "	0 09 0 12	8000 m "	0 07 0 10		
Gas Engine (no fuel or oil)..... Including fuel at 2 gals per day..... Including fuel at 5 gals per day (heavy load).....	2 H P	\$150	1 00	2 0	100 hrs " "	1 67 2 33 3 32	200 hrs " "	0 94 1 60 2 59	400 hrs " "	0 58 1 24 2 23	600 hrs " "	0 46 1 12 2 11		
Gas Engine (no fuel or oil)..... Including fuel at 5 gals per day..... Including fuel at 8 gals per day (heavy load).....	5 H P	\$225	1 50	2 5	100 hrs " "	2 47 4 12 5 11	200 hrs " "	1 39 3 04 4 03	400 hrs " "	0 84 2 49 3 48	600 hrs " "	0 66 2 31 3 30		
Gas Engine (no fuel or oil)..... Including fuel at 10 gals per day..... Including fuel at 15 gals per day (heavy load).....	20-25	\$600	10 00	7 0	100 hrs " "	7 22 10 52 12 17	200 hrs " "	4 32 7 62 9 27	400 hrs " "	2 87 6 17 7 82	600 hrs " "	2 39 5 69 7 34		
Motor, Electric..... Including electric power at 2c per K W H at full load.....	$\frac{1}{4}$ H P	25	0 05	0 15	100 hrs "	0 26 0 31	200 hrs "	0 14 0 19	400 hrs "	0 07 1 12	600 hrs "	0 05 0 10		
Motor, Electric..... Including electric power at 2c per K W H at full load.....	$\frac{1}{2}$ H P	75	0 10	0 30	100 hrs "	0 75 0 85	200 hrs "	0 39 0 49	400 hrs "	0 21 0 31	600 hrs "	0 15 0 25		
Motor, Electric..... Including electric power at 2c per K W H at full load.....	1 H P	100	0 13	0 40	100 hrs "	1 00 1 20	200 hrs "	0 52 0 72	400 hrs "	0 28 0 43	600 hrs "	0 20 0 40		
Motor, Electric..... Including electric power at 2c per K W H at full load.....	2 H P	150	0 15	0 50	100 hrs "	1 49 1 89	200 hrs "	0 77 1 17	400 hrs "	0 41 0 81	600 hrs "	0 29 0 69		

(1) Tractor costs include: depreciation, interest, housing, repair costs and repair or maintenance labor.
 (2) Costs do NOT include the operator wage.
 (3) Fuel and oil is NOT included in the first line listing each tractor, truck, engine or motor.
 (4) Fuel and oil cost is included as shown above at various rates of consumption.

TABLE 5.—METHOD OF CALCULATING HORSE LABOR COSTS

Estimated Cost of Horse Labor (Including Harness)*

ANNUAL COSTS	\$	TOTALS	COST ACCORDING TO ANNUAL USE	Cost Per Hour
Feed Cost—				\$ cts.
Grain—1500 lb. @ 2c.	30 00		Horse cost at 250 hours per year	0 60
Hay—3 tons @ \$15.00	45 00		Horse cost at 500 hours per year	0 30
Pasture and fencing—3 ac. @ \$3.33	10 00		Horse cost at 750 hours per year	0 20
Bedding—½ ton @ \$10.00	5 00	90 00	Two horse team at 250 hours per year	1 20
Man Labor—60 hrs. @ 60c.		36 00	Two horse team at 500 hours per year	0 60
			Two horse team at 750 hours per year	0 40
Fixed Costs—				
Depreciation—8% on \$100 Valuation	8 00			
Interest—2½% of Valuation	2 50			
Buildings	8 00			
Shoeing	6 00			
Veterinarian, etc.	2 00			
Miscellaneous	3 50			
Harness—Assumed Cost	6 00	36 00		
Total Cost per year		162 00		
Credit—Manure 8 tons @ \$1.50		12 00		
Net Cost per Year Per Horse		\$150 00		

NOTE—1—The average use of horses is assumed to be 500 hrs. per year.
 NOTE—2—The cost of horse labor will vary according to the methods of feeding, cost of feed, etc., labor hours and man labor costs as well as other factors. The cost of horse labor might range from 15c—75c per hour.
 NOTE—3—The amount of grain fed per horse may range from 500—2500 lb. per year depending on the method of feeding and amount of work.
 NOTE—4—On small farms requiring a limited amount of horse labor, and on larger farms which use a tractor thus reducing horse labor, the annual cost of maintaining horses is often reduced by 10 to 20% or to possibly \$125 per year.
 NOTE—5—Man labor or chore hours may range from 40 to 75 hours per year.
 NOTE—6—The prices for grain and hay are calculated on the basis of assumed production costs and not market prices.
 NOTE—7—By substituting current district prices for feed, manure, labor, etc., in this table, an estimate of horse costs can be obtained for a specific farm.

* FOOTNOTE:—Refer to the sections which stipulate the factors used in calculating costs and also to explanations of tables in the text.

TABLE 6.—ESTIMATED COSTS OF FARM OPERATIONS (EASTERN CANADA)

(1) Machine and Operations	(2) Size	(3) Power	(4) Investment in Power and Equipment	(5) Range of operation per 10-hr day	(6) Assumed operation per 10-hr day	(7) Assumed annual use of machine	(8) Assumed annual use of power	(9) Machine cost per 10-hr day	(10) Power cost per 10-hr day	(11) Operator's wage per day	(12) Total Cost per 10-hr day	(13) Cost per Unit as listed	(14) Man hours per unit
Plowing (Horses)—													
Walking plow.....	7-9"	2 horses	230	0-7-1-8ac	1-0 ac	10 ac	500 hrs.	0 51	6 00	6 00	12 51	12 51 ac	10-0 per ac
"	"	"	"	"	1-3 "	"	"	59	"	"	12 59	9 70 "	7-7 "
"	"	"	"	"	1-0 ac	15 ac	"	43	"	"	12 43	12 43 "	10-0 "
Sulky plow.....	8-9"	2 horses	350	1-3-2-0 ac	2-0 ac	17 ac	500 hrs.	1 83	6 00	6 00	13 83	8 13 ac	5-9 "
Gang plow.....	7-9"	3 "	400	1-5-2-5 ac	2-0 ac	20 ac	"	1 40	9 00	6 00	16 40	8 20 "	5-0 "
"	"	3 "	400	1-5-2-5 ac	2-3 ac	23 ac	"	1 40	9 00	6 00	16 40	7 13 "	4-3 "
"	"	4 "	500	2-0-3-3 ac	2-5 ac	19 ac	"	1 67	12 00	6 00	19 67	7 86 "	4-0 "
"	"	4 "	500	2-0-3-3 ac	3-0 ac	23 ac	"	1 67	12 00	6 00	19 67	6 55 "	3-3 "
Plowing (tractor)—													
One furrow, M.....	9-12"	1 P-T	1080	1-5-2-8 ac	2-2 ac	22 ac	500 hrs.	1 61	4 73 HL	6 00	12 34	5 61 ac	4-6 per ac
"	"	"	"	"	2-7 ac	27 ac	"	1 61	"	6 00	12 34	4 57 ac	3-7 "
"	"	"	"	"	2-2 ac	22 ac	ø 250 "	1 61	6 66 HL	6 00	14 27	6 48 "	4-6 "
"	"	"	"	"	2-2 ac	22 ac	ø 500 "	1 61	4 73 HL	6 00	12 34	5 61 "	4-6 "
"	"	"	"	"	2-2 ac	22 ac	ø 750 "	1 61	4 09 HL	6 00	11 70	5 32 "	4-6 "
One furrow, M.....	9-12"	2 P-T	1580	2-5-4-0 ac	3-2 ac	24 ac	500 hrs.	1 87	7 07 HL	6 00	14 94	4 67 ac	3-1 per ac
Two furrow, M.....	10-12"	2 P-T	1660	3-0-5-5 ac	4-0 ac	ø 20 ac	500 hrs.	4 23	7 07 HL	6 00	17 30	4 32 ac	2-5 per ac
"	"	"	"	"	"	ø 40 ac	500 hrs.	2 69	7 07 HL	6 00	15 76	3 94 ac	2-5 "
"	"	"	"	"	"	ø 60 ac	500 hrs.	2 17	7 07 HL	6 00	15 24	3 81 ac	2-5 "
"	"	"	"	"	"	ø 40 ac	"	2 69	7 07 HL	ø 3 00	13 76	3 44 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 5 00	14 76	3 69 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 6 00	15 76	3 94 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 7 00	16 76	4 18 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 7 07 HL	16 76	4 18 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 9 97 HL	18 66	4 66 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 9 97 HL	18 66	4 66 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 6 10 HL	14 79	3 94 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 6 41 HL	15 10	3 78 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 7 07 HL	15 76	3 94 ac	2-5 "
"	"	"	"	"	"	"	"	"	"	ø 8 06 EH	16 75	4 18 ac	2-5 "
"	"	"	"	"	3-5 ac	35 ac	"	"	7 07 HL	6 00	15 76	4 50 ac	2-9 "
"	"	"	"	"	4-0 ac	40 ac	"	"	7 07 HL	6 00	15 76	3 94 ac	2-5 "
"	"	"	"	"	4-5 ac	45 ac	"	"	7 07 HL	6 00	15 76	3 50 ac	2-2 "
Two furrow, S.....	10-12"	2 P-T	1700	3-0-5-5 ac	4-0 ac	40 ac	500 hrs.	3 64	7 07 HL	6 00	16 71	4 17 ac	2-5 "
Two furrow, S.....	10-12"	2-3 P-T	2200	5-0-7-0 ac	5-5 ac	41 ac	500 hrs.	4 28	9 34 ML	6 00	19 62	3 57 ac	1-8 "
"	"	"	"	"	6-0 ac	45 ac	"	2 99	9 34 ML	6 00	18 33	3 06 ac	1-7 "
"	"	"	"	"	"	90 ac	"	"	9 34 ML	6 00	17 05	2 84 ac	1-7 "
"	"	"	"	"	"	"	750	"	8 06 ML	6 00	17 05	2 84 ac	1-7 "
Two furrow, S.R.....	10-12"	2-3 P-T	2260	5-0-7-0 ac	5-0 ac	50 ac	500 hrs.	4 22	9 34 ML	6 00	19 56	3 91 ac	2-0 "

Three furrow, S.	10-12"	2-3 P-T	2280	5-0-8-0 ac	6-5 ac	49 ac	500 hrs.	5 91	10 33 HL	6 00	22 27	3 50 ac	1-5	"
"	"	3-4 P-T	3280	7-0-10-0 ac	7-0 ac	53 ac	"	"	13 10 ML	6 00	25 04	3 58 ac	1-4	"
"	"	"	"	"	7-5 ac	56 ac	750 "	"	11 16 ML	6 00	23 10	3 08 ac	1-3	"
"	"	"	"	"	"	"	500 "	"	13 10 ML	3 00	22 04	2 95 ac	1-3	"
"	"	"	"	"	"	"	"	"	13 10 ML	6 00	25 04	3 34 ac	1-3	"
"	"	"	"	"	"	"	"	"	13 10 ML	9 00	28 04	3 74 ac	1-3	"
Three furrow, S.R.	10-12"	3-4 P-T	3350	7-0-10-0 ac	8-0 ac	80 ac	500 hrs.	5 81	14 42 HL	6 00	26 23	3 28 ac	1-3	"
Four furrow, S.	10-12"	3-4 P-T	3380	8-0-13-0 ac	9-0 ac	90 ac	500 hrs.	6 69	14 42 HL	6 00	27 11	3 01 ac	1-1	"
"	"	"	"	"	10-0 ac	100 ac	"	"	14 42 HL	6 00	27 11	2 71 ac	1-0	"
"	"	"	4880	"	"	150 ac	750 "	5 47	12 48 HL	6 00	23 95	2 39 ac	1-0	"
"	"	3-4 P-T	"	"	"	100 ac	1000 "	6 69	12 05 HL	6 00	24 71	2 47 ac	1-0	"
One furrow breaker	16-18"	3-4 P-T	3400	1-0-4-0 ac	2-0 ac	40 ac	500 "	3 19	16 07 EH	6 00	25 26	12 63 ac	5-0	"
Disk Plows—														
One furrow, T.M.	8-10"	2 P-T	1610	2-5-4-0 ac	3-0 ac	23 ac	500 hrs.	2 04	7 07 HL	6 00	15 11	5 04 ac	3-3	"
Two furrow H.S.	8-10"	4 horses	650	2-0-4-0 ac	2-8 ac	12 ac	500 hrs.	3 84	12 00	6 00	21 84	7 82 ac	3-6	"
Two furrow, T.S.	8-10"	2-3 P-T	2300	5-0-7-0 ac	5-0 ac	25 ac	500 hrs.	6 44	10 33 HL	6 00	22 77	4 55 ac	2-0	"
"	"	"	"	"	6-0 ac	30 ac	"	"	10 33 HL	6 00	22 77	3 79 ac	1-7	"
"	"	"	"	"	6-0 ac	45 ac	"	4 52	10 33 HL	6 00	20 58	3 42 ac	1-7	"
Three furrow, T.S.	8-10"	3-4 P-T	3400	6-0-10-0 ac	8-0 ac	60 ac	500 hrs.	6 55	14 42 HL	6 00	26 97	3 37 ac	1-3	"
One-way, T.	3'-4'	2-3 P-T	2280	7-0-12-0 ac	8-0 ac	40 ac	500 hrs.	6 51	10 33 HL	6 00	22 84	2 86 ac	1-3	"
"	"	"	"	"	"	80 ac	"	3 80	10 33 HL	6 00	20 13	2 52 ac	1-3	"
One-way, T.	5'-6'	2-3 P-T	2500	11-0-17-0 ac	15 ac	75 ac	500 hrs.	11 69	10 33 HL	6 00	28 02	1 87 ac	0-7	"
One-way, T.	8'-10'	3-4 P-T	3700	18-0-27-0 ac	20 ac	70 ac	500 hrs.	21 98	14 42 HL	6 00	42 40	2 12 ac	0-5	"
"	"	"	"	"	25 ac	88 ac	750 hrs.	21 98	12 48 HL	6 00	40 46	1 79 ac	0-4	"
One-way (seeder) T.	8'-10'	3-4 P-T	3750	18-0-27-0 ac	20-0 ac	70 ac	500 hrs.	27 66	14 42 HL	6 00	48 08	2 40 ac	0-5	"
Rotary Plow, T.M.	4'	3 P-T	3250	4-0-8-0 ac	5-0 ac	25 ac	500 hrs.	18 20	12 57 HL	6 00	36 77	7 35 ac	2-0	"
"	"	2 P-T	2250	3-0-7-5 ac	4-5 ac	23 ac	500 hrs.	18 20	8 06 EH	6 00	32 26	7 16 ac	2-2	"
Tillage Operations—Harrow														
Disk, sgle, T.M.	5'	1 P-T	1110	12-17 ac	12 ac	24 ac	500 hrs.	5 99	4 40 ML	6 00	16 39	1 37 ac	0-8	"
"	"	"	"	"	14 ac	50 ac	500 hrs.	3 71	4 40 ML	6 00	14 11	1 01 ac	0-7	"
Disk, sgle, H.S.	6'	2 horses	280	6-9 ac	7 ac	35 ac	500 hrs.	1 63	6 00	6 00	13 63	1 95 ac	1-4	"
"	"	"	"	"	9 ac	45 ac	500 hrs.	1 63	6 00	6 00	13 63	1 51 ac	1-1	"
Disk, sgle, H.S.	8'	3 horses	410	7-12 ac	9 ac	45 ac	500 hrs.	2 29	9 00	6 00	17 29	1 92 ac	1-1	"
"	"	4 "	510	10-16 ac	12 ac	60 ac	500 hrs.	2 29	12 00	6 00	20 29	1 69 ac	0-8	"
"	"	4 "	510	"	12 ac	90 ac	500 hrs.	1 70	12 00	6 00	19 70	1 64 ac	0-8	"
Disk, tand. H.	5'-6'	4 horses	580	7-0-12 ac	10 ac	50 ac	500 hrs.	3 53	12 00	6 00	21 53	2 15 ac	1-0	"
"	"	2 P-T	1680	12-17 ac	14 ac	70 ac	500 hrs.	3 53	7 07 HL	6 00	16 60	1 19 ac	0-7	"
"	"	"	1680	"	17 ac	85 ac	500 hrs.	3 53	7 07 HL	6 00	16 60	98 ac	0-6	"

TABLE 6.—ESTIMATED COSTS OF FARM OPERATIONS (EASTERN CANADA)—Continued

Machine and Operations	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Machine and Operations	Size	Power	Investment in Power and Equipment	Range of operation per 10-hr day	Assumed annual operation per 10-hr day	Assumed annual use of machine	Assumed annual use of power	Machine cost per 10-hr day	Power cost per 10-hr day	Operator's wage per day	Total Cost per 10-hr day	Cost per Unit as listed	Man hours per unit
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				\$					\$	cts.	\$	\$	\$	cts.
Tillage Operations—Harrow														
—Concluded														
Disk, tand. T.	7'-8'	2 P-T	1720	15-20 ac	16 ac	56 ac	500 hrs.	6 84	7 07 HL	6 00	19 91	1 25 ac	0.6 per ac	
"	"	"	"	"	"	"	500 hrs.	5 02	7 07 HL	6 00	18 09	1 13 ac	0.6 "	
"	"	2-3 P-T	2220	18-25 ac	20 ac	70 ac	500 hrs.	6 84	10 33 HL	6 00	23 17	1 16 ac	0.5 "	
"	"	"	"	"	"	"	750 hrs.	3 61	9 05 HL	6 00	18 66	93 ac	0.5 "	
"	10'	2-3 P-T	2340	20-26 ac	22 ac	110 ac	500 hrs.	7 61	10 33 HL	6 00	23 94	1 09 ac	0.5 "	
"	"	3-4 P-T	3340	24-30 ac	25 ac	125 ac	500 hrs.	7 61	14 42 HL	6 00	28 03	1 12 ac	0.4 "	
Disk offset, T.	7'	2-3 P-T	2290	10-18 ac	12 ac	60 ac	500 hrs.	6 45	11 32 EH	6 00	23 77	1 98 ac	0.8 "	
Stalk cutter, H.	1 Row	2 horses	300	6-12 ac	10 ac	35 ac	500 hrs.	2 71	6 00	6 00	14 71	1 47 ac	1.0 "	
"	2 Row	3 "	440	15-22 ac	17 ac	60 ac	500 hrs.	3 87	9 00	6 00	18 87	1 11 ac	0.6 "	
Stalk shredder, T.	2 Row	3 P-T	3000	8-20 ac	15 ac	53 ac	500 hrs.	15 90	12 57 HL	6 00	34 47	1 26 ac	0.7 "	
Cultivators—														
Corn hoeing	Hand	2 horses	320	0.7-1.2 ac	0.9 ac	38 ac	500 hrs.	1 59	6 00	6 00	6 00	6 67 ac	11.1 "	
"	1 Row	2 "	320	4.0-8.0 ac	5.0 ac	53 ac	500 hrs.	1 59	6 00	6 00	13 59	2 72 ac	2.0 "	
"	"	"	"	"	7.0 ac	53 ac	500 hrs.	1 59	6 00	6 00	13 59	1 94 ac	1.4 "	
Corn cultiv., H.	2 Row	2 horses	350	9-15 ac	9 ac	45 ac	500 hrs.	3 22	6 00	6 00	15 22	1 69 ac	1.1 "	
"	"	2 "	"	"	13 ac	65 ac	500 hrs.	3 22	6 00	6 00	15 22	1 17 ac	0.8 "	
Corn cultiv., T.M.	1 Row	1 P-T	1090	7-15 ac	11 ac	39 ac	500 hrs.	3 26	4 40 ML	6 00	13 66	1 24 ac	0.9 "	
Corn, cultiv., T.M.	2 Row	2 P-T	1680	15-22 ac	15 ac	53 ac	500 hrs.	6 76	6 41 ML	6 00	19 17	1 28 ac	0.7 "	
"	2 "	2 "	1680	15-22 ac	20 ac	70 ac	500 hrs.	6 76	6 41 ML	6 00	19 17	96 ac	0.5 "	
Corn, Cultiv., T.M.	2 Row	2-3 P-T	2230	15-22 ac	15 ac	53 ac	500 hrs.	7 83	8 35 LL	6 00	22 18	1 48 ac	0.7 "	
"	2 "	2-3 P-T	"	"	20 ac	100 ac	500 hrs.	5 92	8 35 LL	6 00	20 27	1 01 ac	0.5 "	
Scuffler, H.	1 Row	1 horse	125	4-6 ac	4.5 ac	23 ac	500 hrs.	87	3 00	6 00	9 87	2 20 ac	2.2 "	
Potato hoeing	Hand	2 horses	235	0.5-0.9 ac	0.8 ac	23 ac	500 hrs.	64	6 00	6 00	6 00	6 00	7 50 ac	12.5 "
Potato hiller, H.	1 Row	2 horses	1550	4-6 ac	4.5 ac	23 ac	500 hrs.	64	6 00	6 00	12 64	2 81 ac	2.2 "	
Potato hiller, T.M.	2 Row	2 P-T	1550	6.0-12.0 ac	9 ac	45 ac	500 hrs.	1 55	6 41 ML	6 00	13 96	1 55 ac	1.1 "	
Root hoeing	Hand	1 horse	180	0.6-1.0 ac	0.7 ac	18 ac	500 hrs.	2 38	3 00	6 00	6 00	6 00	8 57 ac	14.3 "
Beet cultiv., H.	2 Row	2 horses	400	4-6 ac	5 ac	18 ac	500 hrs.	4 21	6 00	6 00	11 38	2 27 ac	2.0 "	
Beet cultiv., H.	4 Row	2 horses	1600	7-13 ac	9 ac	45 ac	500 hrs.	4 21	6 00	6 00	16 21	1 80 ac	1.1 "	
Beet cultiv., T.M.	4 Row	2 P-T	1600	15-17 ac	15 ac	53 ac	500 hrs.	1 35	6 41 ML	6 00	16 76	1 12 ac	0.7 "	

Vegetable cultiv., T.M.	5'-6'	1 P-T	1100	6-14 ac	8 ac	28 ac	500 hrs.	4 11	4 40 ML	6 00	14 51	1 82 ac	1-3
Vegetable cultiv., T.M.	8'	2 P-T	1650	8-18 ac	13 ac	46 ac	500 hrs.	5 70	6 41 ML	6 00	18 11	1 39 ac	0-8
Rotary hoe, sgle., H.	7'	2 P-T	1630	18-24 ac	20 ac	70 ac	500 hrs.	3 62	6 41 ML	6 00	16 03	81 ac	0-5
Rotary hoe, dble., T.	7'	2 P-T	1820	18-24 ac	20 ac	70 ac	500 hrs.	7 17	6 41 ML	6 00	19 58	98 ac	0-5
Roller, H.	9'	2 horses	380	14-18 ac	16 ac	56 ac	500 hrs.	4 57	6 00	6 00	16 57	1 04 ac	0-6
Roller, H.	9'	2 P-T	1680	25-35 ac	30 ac	60 ac	500 hrs.	7 65	6 41 ML	6 00	20 17	67 ac	0-3
Roller & harrow, H.	9'	2 P-T	1730	20-30 ac	25 ac	50 ac	500 hrs.	9 96	6 41 ML	6 00	22 37	89 ac	0-4
Cultipacker, tand., H.	8'	2 P-T	1700	18-24 ac	20 ac	70 ac	500 hrs.	5 76	6 41 ML	6 00	18 17	91 ac	0-5
Weeder, tand., H.	12'	2 horses	280	13-18 ac	15 ac	30 ac	500 hrs.	3 69	6 00	6 00	15 69	1 91 ac	0-5
Weeder, tand., H.	"	2 P-T	1580	24-36 ac	25 ac	50 ac	500 hrs.	3 69	6 41 ML	6 00	16 10	64 ac	0-4
Rod weeder, T.	9'	2-3 P-T	2150	16-26 ac	20 ac	40 ac	500 hrs.	8 15	9 34 ML	6 00	23 49	1 17 ac	0-5
Field cultiv., spring, H.	5½'	2 horses	360	6-10 ac	7 ac	25 ac	500 hrs.	4 61	6 00	6 00	16 61	2 38 ac	1-4
"	"	1 P-T	1160	9-13 ac	10 ac	35 ac	500 hrs.	4 61	4 73 HL	6 00	15 34	1 54 ac	1-0
"	"	"	"	"	12 ac	60 ac	500 hrs.	3 51	4 73 HL	6 00	14 24	1 19 ac	0-8
Field cultiv. stiff, H.	6'	3 horses	500	7-10 ac	9 ac	45 ac	500 hrs.	3 80	9 00	6 00	18 80	2 09 ac	1-1
Field cultiv. stiff, T.	7'	2 P-T	1730	17-22 ac	20 ac	70 ac	500 hrs.	7 56	6 41 ML	6 00	19 97	1 00 ac	0-5
"	"	"	"	17-22 ac	"	100 ac	750 hrs.	5 65	5 44 ML	6 00	17 09	85 ac	0-5
Field cultiv. stiff, T.M.	7'	2 P-T	1700	17-22 ac	20 ac	70 ac	500 hrs.	6 77	6 41 ML	6 00	19 18	96 ac	0-5
Field cultiv. stiff, T.	10'-12'	2-3 P-T	2320	20-30 ac	25 ac	88 ac	500 hrs.	10 69	10 33 HL	6 00	27 02	1 08 ac	0-4
"	"	"	"	"	"	188 ac	750 hrs.	5 97	9 05 HL	6 00	21 02	84 ac	0-4
"	"	3-4 P-T	3320	25-35 ac	30 ac	150 ac	500 hrs.	8 04	13 10 ML	6 00	27 14	90 ac	0-3
Harrow spring, 2 sect. H.	6'	2 horses	290	7-11 ac	8 ac	16 ac	500 hrs.	4 14	6 00	6 00	16 14	2 02 ac	1-3
"	"	1 P-T	1090	10-15 ac	14 ac	28 ac	500 hrs.	4 14	4 40 ML	6 00	14 54	1 04 ac	0-7
Harrow, spring, 3 sect. H.	9'-10'	2 P-T	1630	15-27 ac	20 ac	40 ac	500 hrs.	5 94	6 41 ML	6 00	18 35	91 ac	0-5
Harrow, spike, 3 sect. H.	10'	2 horses	250	14-19 ac	15 ac	30 ac	500 hrs.	2 43	6 00	6 00	14 43	96 ac	0-7
"	"	1 P-T	1050	20-30 ac	25 ac	50 ac	500 hrs.	2 43	4 40 ML	6 00	12 83	51 ac	0-4
"	"	4 horses	460	20-30 ac	25 ac	50 ac	500 hrs.	3 44	12 00	6 00	21 44	86 ac	0-4
"	20'	2 P-T	1600	40-55 ac	50 ac	100 ac	500 hrs.	5 93	6 41 ML	6 00	18 34	37 ac	0-2
Seeding Operations													
Grain drill, H.S.	6'-7'	2 horses	490	8-11 ac	10 ac	20 ac	500 hrs.	12 67	6 00	6 00	24 67	2 68 ac	1-0
"	"	1 P-T	1290	10-15 ac	12 ac	24 ac	500 hrs.	12 67	4 40 ML	6 00	23 07	1 92 ac	0-8
"	"	2 P-T	1790	16-22 ac	18 ac	63 ac	500 hrs.	7 70	6 41 ML	6 00	20 11	1 12 ac	0-6
Grain drill, H.S.	9'	3 horses	640	10-14 ac	12 ac	42 ac	500 hrs.	9 33	9 00	6 00	24 33	2 03 ac	0-8
"	"	2 P-T	1840	20-25 ac	21 ac	74 ac	500 hrs.	9 33	6 41 ML	6 00	21 74	1 03 ac	0-5
Grain drill, fert., H.	6'-7'	2 horses	580	8-10 ac	9 ac	45 ac	500 hrs.	7 49	6 00	6 00	19 49	2 16 ac	1-1
"	"	3 horses	680	9-12 ac	11 ac	55 ac	500 hrs.	7 49	9 00	6 00	22 49	2 04 ac	0-9
"	"	2 P-T	1880	15-22 ac	17 ac	85 ac	500 hrs.	7 49	6 41 ML	6 00	19 90	1 17 ac	0-9
Grain drill, fert., T.	9'	2 P-T	1950	15-22 ac	17 ac	34 ac	500 hrs.	23 64	6 41 ML	6 00	36 05	2 12 ac	0-6
"	"	"	"	"	19 ac	67 ac	500 hrs.	14 14	6 41 ML	6 00	26 55	1 40 ac	0-5
"	"	"	"	"	19 ac	95 ac	500 hrs.	10 41	6 41 ML	6 00	22 82	1 20 ac	0-5

TABLE 6.—ESTIMATED COSTS OF FARM OPERATIONS (EASTERN CANADA)—(Continued)

Machine and Operations	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Machine and Operations	Size	Power	Investment in Power and Equipment	Range of operation per 10-hr day	Assumed operation per 10-hr day	Assumed annual use of machine	Assumed annual use of power	Machine cost per 10-hr day	Power cost per 10-hr day	Operator's wage per day	Total Cost per 10-hr day	Cost per Unit as listed	Man hours per unit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				\$		ac	ac	hrs.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Seeding Operations—Concluded														
Packer seeder, T.		8'	2 P-T	2000	12-20 ac	15 ac	30 ac	500 hrs.	25 08	6 41 ML	6 00	37 49	2 50 ac	0.7 per ac
Seed pan.			Hand	5		5 ac					5 00	5 00	1 00 ac	2.0 "
Grass seeder.						16 ac			25		5 00	5 25	3 28 ac	0.6 "
Hand planter, corn.				5		4 ac			20		5 00	5 20	1 30 ac	2.5 "
Corn planter, H.		1 Row	1 horse	160		5 ac	5 ac	500 hrs.	5 40	3 00	6 00	14 40	2 88 ac	2.0 "
Corn planter, H.		2 Row	2 horses	370	9-13 ac	10 ac	10 ac	500 hrs.	14 30	6 00	6 00	26 30	2 63 ac	1.0 "
Corn planter, H.		"	"	"	9-13 ac	10 ac	35 ac	500 hrs.	4 59	6 00	6 00	16 59	1 66 ac	1.0 "
Corn planter, fert. H.		2 Row	2 horses	420	9-13 ac	10 ac	10 ac	500 hrs.	18 35	6 00	6 00	30 35	3 04 ac	1.0 "
Corn planter, fert. H.		"	"	"	"	"	35 ac	500 hrs.	5 78	6 00	6 00	17 78	1 78 ac	1.0 "
Corn planter, fert. T.M.		2 Row	2 P-T	1850	10-14 ac	12 ac	42 ac	500 hrs.	10 65	6 41 ML	6 00	23 06	1 92 ac	0.8 "
Corn planter, fert. T.M.		"	"	"	"	"	24 ac	500 hrs.	17 90	6 41 ML	6 00	30 31	2 52 ac	0.8 "
Potato planter.		Plow	2 horses	230		1.4 ac	20 ac	500 hrs.	43	6 00	12 00	18 43	13 10 ac	14.3 "
Potato planter, fert. H.		1 Row	500	500	3-6 ac	4 ac	8 ac	500 hrs.	12 76	6 00	6 00	24 76	6 18 ac	2.5 "
"		"	2 P-T	1800	4-7 ac	5 ac	10 ac	500 hrs.	12 76	6 41 ML	6 00	25 17	5 03 ac	2.0 "
"		"	"	"	"	"	50 ac	500 hrs.	3 16	6 41 ML	6 00	15 57	3 02 ac	2.0 "
Potato planter, fert. T.		2 Row	2-3 P-T	2750	6-12 ac	10 ac	35 ac	500 hrs.	21 86	9 34 ML	12 00	43 20	4 32 ac	1.0 "
Potato planter, fert. T.		"	"	"	"	6 ac	21 ac	500 hrs.	21 86	9 34 ML	6 00	37 20	6 20 ac	0.6 "
Broadcast seeder, H.		10'	2 horses	300	15-20 ac	18 ac	18 ac	500 hrs.	9 35	6 00	6 00	21 35	1 19 ac	0.6 "
Vegetable planter.		1 Row	Hand	50	1-1.2-5 ac	2 ac	2 ac		4 39		6 00	10 39	5 18 ac	5.0 "
Vegetable planter, T.M.		4 Row	1 P-T	1170	9-14 ac	10 ac	10 ac	500 hrs.	17 25	4 40 ML	6 00	27 65	2 77 ac	1.0 "
Vegetable planter, T.M.		"	2 P-T	1670	"	"	"	500 hrs.	17 25	6 41 ML	6 00	29 66	2 97 ac	1.0 "
Transplanter, H.		1 Row	2 horses	400	1-5-4.0 ac	3 ac	3 ac	500 hrs.	18 11	6 00	18 00	42 11	14 04 ac	10.0 "
"		"	"	"	"	3 ac	15 ac	500 hrs.	5 31	6 00	18 00	29 31	9 77 ac	10.0 "
"		"	2 P-T	1700	3-0-6.0 ac	4 ac	8 ac	500 hrs.	10 11	6 41 ML	18 00	34 52	8 63 ac	7.5 "
Beet drill, fert. H.		4 Row	2 horses	450	9-14 ac	12 ac	24 ac	500 hrs.	11 65	6 00	6 00	23 65	1 97 ac	0.8 "
"		"	2 P-T	1750	14-17 ac	15 ac	30 ac	500 hrs.	11 65	6 41 ML	6 00	24 06	1 60 ac	0.7 "
Beet drill, fert. T.		4 Row	2 P-T	1900	15-20 ac	17 ac	34 ac	500 hrs.	21 08	6 41 ML	6 00	33 49	1 97 ac	0.6 "
Harvesting Operations—														
Mower, H.		6'	2 horses	380	8-11 ac	10 ac	35 ac	500 hrs.	5 86	6 00	6 00	17 86	1 79 ac	1.0 "
"		"	"	"	"	"	75 ac	500 hrs.	3 66	6 00	6 00	15 66	1 57 ac	1.0 "
"		"	2 P-T	1680	14-16 ac	15 ac	75 ac	500 hrs.	4 62	4 61 ML	12 00	23 03	1 54 ac	1.3 "

Mower, T.M.	4'-5'	1 P-T	1110	10-12 ac	10 ac	50 hrs.	4 03	4 40 ML	6 00	14 43	1 44 ac	1.0
Mower, semi, T.M.	6'	2 P-T	1720	14-18 ac	15 ac	500 hrs.	6 75	6 41 ML	6 00	19 16	1 31 ac	0.7
Mower, T.M.	6'-7'	2-3 P-T	2220	18-25 ac	20 ac	500 hrs.	8 17	9 34 ML	6 00	23 51	1 18 ac	0.5
Rake, dump, H.	9'-10'	2 horses	300	15-19 ac	18 ac	500 hrs.	4 76	6 00	6 00	16 76	93 ac	0.6
"	"	1 P-T	1100	20-30 ac	22 ac	500 hrs.	4 76	4 40 ML	6 00	15 16	69 ac	0.5
Rake, side, H.	9'-10'	2 horses	460	16-22 ac	18 ac	500 hrs.	7 32	6 00	6 00	19 32	1 07 ac	0.6
"	"	1 P-T	1260	20-30 ac	25 ac	500 hrs.	7 32	4 40 ML	6 00	17 72	71 ac	0.4
"	"	2 P-T	1760	25-30 ac	27 ac	500 hrs.	5 51	6 41 ML	6 00	17 95	67 ac	0.4
Rake, side, T.p.t.o.	9'-10'	2 P-T	1950	25-30 ac	25 ac	500 hrs.	10 79	6 41 ML	6 00	23 20	93 ac	0.4
"	"	"	"	"	"	500 hrs.	23 81	6 41 ML	6 00	36 25	1 45 ac	0.4
Cocking hay,	Hand	2 horses	320	(5-8 acres per 10 hrs. of work)	15 ac	500 hrs.	10 83	6 00	5 00	5 00	86 ac	1.7
Hay tedder	7'	2 horses	1660	5-16 ac	10 ac	500 hrs.	6 03	6 41 ML	6 00	22 83	1 52 ac	0.7
Hay sweep, T.M.	10'	2 P-T	1660	1-3 ac	1.2 ac	500 hrs.	5 40	6 41 ML	6 00	17 81	14 80 ac	8.3
Silage sweep, T.M.	10'	"	"	12-25 tn.	18 tn.	500 hrs.	5 40	6 41 ML	6 00	17 81	99 tn.	0.6
"	"	"	"	"	"	500 hrs.	4 07	6 41 ML	6 00	16 48	91 tn.	0.6
Hay sweep, T.M.	10'	2-3 P-T	2400	8-20 ac	12 ac	500 hrs.	10 43	9 34 ML	6 00	25 77	2 15 ac	0.8
"	"	"	"	"	15 ac	500 hrs.	10 43	9 34 ML	6 00	25 77	1 72 ac	0.7
"	"	"	"	"	23 tn.	500 hrs.	10 43	9 34 ML	6 00	25 77	1 12 tn.	0.4
Hand loading hay	Hand	2 men	"	10-20 ac	(15 ac per 10 hrs. of work.)	12 00	"	"	12 00	12 00	80 ac	1.3
"	"	"	"	15-30 tn.	(22 tn. per 10 hrs. of work.)	12 00	"	"	12 00	12 00	55 tn.	0.9
Hay loader, cyl., H.	17" x 22"	2 horses	290	"	35 hr.	6 00	8 29	"	6 00	26 85	1 31 tn.	1.0
Rack wagon, std., H.	"	2 horses	275	"	750 hrs.	6 00	56	"	6 00	"	"	per tn.
& two horses	"	"	200	"	(20 tn. in 10 hrs. of work)	"	"	"	"	"	"	"
Hay press, E.	"	"	1250	"	15 tn. | 150 tn.	18 00	12 72	"	18 00	30 72	2 04 tn.	2.0
"	"	"	"	"	with wire @ 7.5 lb. per tn. at 15c per lb. plus gas 1.5 gal. per hr.	"	"	"	"	52 10	3 48 tn.	2.0
Pick-up baler, (hand tie)	"	2-3 P-T	3500	20-30 tn.	25 tn. | 250 tn.	18 00	17 59	9 34 ML	18 00	44 93	1 80 tn.	1.2
"	"	"	"	"	with wire at 7.5 lb. per tn. at 15c per lb.	"	"	"	"	73 03	2 92 tn.	1.2
Pick-up baler, E.	"	2-3 P-T	3500	20-30 tn.	25 tn. | 250 tn.	6 00	17 59	10 33 HL	6 00	33 92	1 35 tn.	0.4
"	"	"	"	"	with twine 3-5 lb. per ton at 30c per lb.	"	"	"	"	60 22	2 41 tn.	0.4
Pick-up baler, E.	"	2-3 P-T	4000	20-30 tn.	30 tn. | 300 tn.	6 00	23 20	9 34 ML	6 00	38 54	1 28 tn.	0.3
"	"	"	4000	"	with twine 3-5 lb. per ton at 30c per lb. plus gas @ 1.5 gal. per hr.	"	"	"	"	74 54	2 49 tn.	"
Pick-up baler, E.	"	2-3 P-T	4500	25-50 tn.	35 tn. | 525 tn.	6 00	20 40	9 34 ML	6 00	35 74	1 02 tn.	0.3
"	"	"	"	"	with twine 3-5 lb. per ton, plus gas at 1.5 gal. per hr.	"	"	"	"	76 99	2 20 tn.	0.3
Corn cutting.	Hand	sickle	"	0-6-1.3 ac	1 ac	6 00	"	"	6 00	6 00	6 00 ac	10.0
Corn binder, H.	1 Row	2 horses	700	3-6 ac	4 ac	500 hrs.	22 20	6 00	6 00	34 20	8 55 ac	2.5
"	"	3 "	800	4-7 ac	5 ac	500 hrs.	22 20	9 00	6 00	37 20	7 44 ac	2.0
"	"	3 "	800	"	(with twine at 2 1/2 lb. per acre @ 30c per lb.)	6 00	13 63	6 41 ML	6 00	40 95	8 20 ac	"
"	"	2 P-T	2000	6-9 ac	7 ac | 25 ac	500 hrs.	13 63	6 41 ML	6 00	26 04	3 72 ac	1.4
"	"	"	"	"	(with twine at 2 1/2 lb. per acre @ 30c per lb.)	6 00	13 63	6 41 ML	6 00	31 29	4 47 ac	"
Corn binder, p.t.o.	1 Row	2 P-T	2210	6-10 ac	8 ac | 28 ac	6 00	23 21	6 41 ML	6 00	35 65	1 46 ac	1.3
"	"	"	"	"	(with twine at 2 1/2 lb. per acre @ 30c per lb.)	"	"	"	"	41 65	5 20 ac	"

TABLE 6.—ESTIMATED COSTS OF FARM OPERATIONS (EASTERN CANADA)—Continued

Machine and Operations	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Machine and Operations	Size	Power	Investment in Power and Equipment	Range of operation per 10-hr day	Assumed annual use of machine	Assumed annual use of power	Machine cost per 10-hr day	Power cost per 10-hr day	Operator's wage per day	Total Cost per 10-hr day	Cost per Unit as listed	Man hours per unit	
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				\$					\$	\$	\$	\$	\$	
Harvesting Operations														
—Concluded														
Corn binder, p. t. o.	1 Row	2-3 P-T	2850	3-7 ac	5 ac	70 ac	500 hrs.	8 98	9 34 ML	6 00	24 32	4 86 ac	2-0 per ac	
"	"	"	"	5-9 ac	7 ac	105 ac	500 hrs.	8 98	9 34 ML	6 00	24 32	3 48 ac	1-1 "	
"	"	"	"	(with twine at 2½ lb. per acre @ 30c per lb.)										
Corn harvester, p. t. o.	1 Row	2 P-T	2350	3-7 ac	5 ac	70 ac	500 hrs.	8 98	7 07 HL	6 00	29 57	4 23 ac	1-1 "	
"	"	3-4 P-T	4000	5-8 ac	6 ac	45 ac	500 hrs.	18 23	14 42 HL	6 00	38 65	4 41 ac	2-0 "	
"	"	"	"	"	8 ac	80 ac	500 hrs.	15 01	14 42 HL	6 00	35 43	6 45 ac	1-7 "	
"	"	"	"	"	120 tons	100 hrs.	500 hrs.	15 01	14 42 HL	6 00	35 43	4 44 ac	1-3 "	
Forage blower, T.	Silage	2-3 P-T	2390	50-100 tn.	75 tn.	35 hr.	500 hrs.	12 46	9 34 ML	6 00	27 80	0 37 tn.	0-14 per tn.	
"	"	"	"	"	75 tn.	50 hr.	500 hrs.	9 23	9 34 ML	6 00	24 57	0 37 tn.	0-14 "	
"	"	"	"	"	20-40 tn.	35 hr.	500 hrs.	12 46	9 34 ML	6 00	27 80	0 93 tn.	0-33 "	
Silo filler, T.	10"	2-3 P-T	2450	40-80 tn.	40 tn.	200 tn.	500 hrs.	10 33	10 33 HL	6 00	26 66	0 66 tn.	0-25 "	
"	"	"	"	"	40 tn.	300 tn.	500 hrs.	7 44	10 33 HL	6 00	23 77	0 59 tn.	0-25 "	
"	"	"	"	"	70 tn.	350 tn.	500 hrs.	10 33	10 33 HL	6 00	26 66	0 38 tn.	0-14 "	
Silo filler, T.	16"	2-3 P-T	2650	50-120 tn.	80 tn.	600 tn.	500 hrs.	12 59	11 32 EH	6 00	29 91	0 37 tn.	0-12 "	
"	16"	2-3 P-T	"	"	80 tn.	400 tn.	500 hrs.	16 78	11 32 EH	6 00	34 10	0 43 tn.	0-12 "	
"	16"	"	"	"	80 tn.	800 tn.	500 hrs.	10 50	11 32 EH	6 00	27 82	0 35 tn.	0-12 "	
Silo filler, tractor.	10"	2-3 P-T	2450	(crew 2)	60 tn.	300 tn.	500 hrs.	10 33	10 33 HL	12 00	106 90	1 76 tn.	1-7 "	
Wagons & crew	4 wg.	8 horses	2500	(crew 8)	(without men in silo)			2 24	24 00	48 00				
Binder, tractor	10"	2 P-T	2850	(crew 2)	(with loader)			8 98	7 07 HL	12 00				
Silo filler, tractor	5	2-3 P-T	2450	(crew 2)	(75 tons per day)			10 33	10 33 HL	12 00	123 51	1 65 tn.	1-3 "	
Wagons & crew		10 horses	3125	(crew 5)	(without men in silo)			2 80	30 00	30 00	127 26	1 70 tn.	1-3 "	
"	"	"	"	(with twine at 2½ lb. per acre @ 30c per lb.)										
Corn picker, p. t. o.	1 Row	2-3 P-T	3030	4-9 ac	5 ac	50 ac	500 hrs.	11 44	9 34 ML	6 00	26 78	5 35 ac	2-0 "	
"	"	2-3 P-T	"	"	5 ac	100 ac	500 hrs.	6 47	9 34 ML	6 00	21 81	4 37 ac	2-0 "	
Corn picker, p. t. o.	2 Row	2-3 P-T	3600	6-16 ac	9 ac	90 ac	500 hrs.	17 45	9 34 ML	6 00	32 97	3 66 ac	1-1 "	
"	"	"	"	"	9 ac	180 ac	500 hrs.	9 72	9 34 ML	6 00	25 06	2 79 ac	1-1 "	
F. harvester, 1 tractor.	(corn)	3-4 P-T	5000	(crew 2)	75 tn.	75 hr.	500 hrs.	32 68	16 07 EH	12 00	130 81	1 74 tn.	0-8 per tn.	
Blower, 1 tractor.	"	2-3 P-T	2390	(crew 3)	35 hr.	35 hr.	500 hrs.	12 46	9 34 ML	18 00				
3 wagons, 1 tractor.	"	2 P-T	3000	(crew 1)	(wagon unloader, without men in silo)			17 85	6 41 ML	6 00				
F. harvester, 1 tractor.	(green hay)	3-4 P-T	5000	(crew 2)	50 tn.	75 hr.	500 hrs.	32 68	16 07 EH	12 00				
Blower, 1 tractor.	"	2-3 P-T	2390	(crew 2)	35 hr.	35 hr.	500 hrs.	12 46	9 34 ML	12 00	124 81	2 50 tn.	1-0 "	
3 wagons, 1 tractor.	"	2 P-T	3000	(crew 1)	(Wagon unloader, without men in silos)			17 85	6 41 ML	6 00				

F. harvester, 1 tractor.....	(dry hay)	3-4 P-T	3600	(crew 1)	30 tn.	75 hr.	500 hrs.	32 68	16 07 EH	6 00	118 81	3 96 tn	1-3	"
Blower, 1 tractor.....	"	2-3 P-T	2000	(crew 2)	"	35 hr.	500 hrs.	12 46	19 34 ML	12 00			1-3	"
3 wagons, 1 tractor.....	"	2 P-T	2260	(crew 1)	(Wagon unloader; no men in mow)			17 85	6 41 ML	6 00			1-3	"
Grain binder, H.....	6'-7'	2 horses	750	6-9 ac	8 ac	40 ac	500 hrs.	10 92	6 00	6 00	22 92	2 86 ac	1-3	"
"	"	"	"	(with twine 2½ lb. per acre at 30c per lb.)							28 92	3 61 ac	1-3	"
"	"	3 horses	850	7-14 ac	10 ac	50 ac	500 hrs.	10 92	9 00	6 00	25 92	2 59 ac	1-0	"
"	"	"	"	(with twine 2½ lb. per acre at 30c per lb.)							33 42	3 34 ac	1-0	"
"	"	2 P-T	2050	10-17 ac	13 ac	65 ac	500 hrs.	10 92	6 41 ML	12 00	29 33	2 26 ac	1-5	"
"	"	"	"	(with twine 2½ lb. per acre at 30c per lb.)							39 08	3 01 ac	1-5	"
Grain binder, p.t.o.....	8'	2-3 P-T	2670	15-25 ac	15 ac	75 ac	500 hrs.	16 02	9 34 ML	10 00	35 36	2 36 ac	1-3	"
"	"	"	"	15-25 ac	20 ac	100 ac	500 hrs.	16 02	9 34 ML	10 00	35 36	1 78 ac	1-0	"
"	"	"	"	(with twine 2½ lb. per acre at 30c per lb.)							50 54	2 53 ac	1-0	"
Stooking grain.....	Hand	"	"	5-8 ac	7 ac					6 00	6 00	86 ac	1-4	"
Combine, T., p.t.o.....	3'-4'	2-3 P-T	3200	5-10 ac	7-5 ac	75 ac	500 hrs.	15 87	9 34 ML	12 00	37 21	4 96 ac	2-7	"
"	"	"	"	"	9 ac	90 ac	500 hrs.	15 87	9 34 ML	12 00	37 21	4 14 ac	2-2	"
Combine, T., p.t.o.....	5'-6'	2-3 P-T	3500	9-15 ac	12 ac	120 ac	500 hrs.	19 47	10 33 HL	12 00	41 08	3 42 ac	1-7	"
Combine, T.E.....	5'-6'	2-3 P-T	4000	10-18 ac	12 ac	120 ac	500 hrs.	26 68	9 34 ML	12 00	48 02	4 00 ac	1-7	"
"	"	"	"	(with fuel 7 gal. per day and oil)				17 02	9 34 ML	12 00	38 36	3 20 ac	1-7	"
"	"	"	"								40 67	3 38 ac	1-7	"
Combine, S.P.....	8'-10'	"	4500	10-25 ac	15 ac	150 ac		51 33		12 00	63 33	4 22 ac	1-3	"
"	"	"	"	(with fuel 14 gal. per day and oil)				29 60		12 00	41 60	2 78 ac	1-3	"
"	"	"	"								45 80	3 06 ac	1-3	"
Potato plow.....	"	2 horses	230	0-7-1-5 ac	1-2 ac	12 ac	500 hrs.	43	6 00	6 00	12 43	10 40 ac	8-3	"
Potato digger, H.....	1 Row	2 horses	500	2-4 ac	2-5 ac	5 ac	500 hrs.	13 57	6 00	6 00	25 57	10 20 ac	4-0	"
"	"	"	"	2-4 ac	2-5 ac	9 ac	500 hrs.	8 44	6 00	6 00	20 44	8 20 ac	4-0	"
"	"	2 P-T	1800	4-6 ac	4-5 ac	16 ac	500 hrs.	8 44	6 41 ML	12 00	26 85	5 97 ac	4-4	"
Potato digger, p.t.o.....	1 Row	2 P-T	1980	4-6 ac	5 ac	25 ac	500 hrs.	11 54	7 07 HL	6 00	24 61	4 93 ac	2-0	"
"	2 Row	2-3 P-T	2890	"	9 ac	45 ac	500 hrs.	21 50	10 33 HL	6 00	37 83	4 21 ac	1-1	"
Potato harvester, T., p.t.o.....	1 Row	2-3 P-T	3500	"	5 ac	50 ac	500 hrs.	17 87	10 33 HL	30 00	58 20	11 60 ac	10-0	"
Beet lifting.....	Hand	"	"	"	"	"	"	"	"	"	"	"	"	"
Beet lifter, H.....	1 Row	2 horses	320	2-5 ac	0-3 ac	45 ac	500 hrs.	1 04	6 00	6 00	6 00	20 00 ac	33-3	"
"	"	"	"	2-5 ac	3 ac						13 04	4 34 ac	3-3	"
Beet lifter, T.M.....	1 Row	2 P-T	1620	4-6 ac	5 ac	38 ac	500 hrs.	2 16	7 07 HL	6 00	15 23	3 05 ac	2-0	"
Beet lifter, T.M.....	2 Row	2-3 P-T	2170	5-8 ac	7 ac	55 ac	500 hrs.	2 89	10 33 HL	6 00	19 22	2 75 ac	1-4	"
Beet harvester, T.M.....	1 Row	3 P-T	5200	1-5-4 ac	3 ac	30 ac	500 hrs.	35 68	12 57 HL	12 00	60 25	20 10 ac	6-6	"
Miscellaneous—														
Manure spreader, H.....	50 bus.	2 horses	550	10-15 tons	13 tons	100 tons	500 hrs.	4 48	6 00	6 00	16 48	1 27 tn.	0-8	"
Manure spreader, T.....	60 bus.	2 P-T	1900	"	20 tons	150 tons	500 hrs.	5 31	6 41 ML	6 00	17 72	89 tn.	0-5	"
Manure spreader, T. p.t.o.....	60 bus.	2-3 P-T	2500	"	20 tons	200 tons	500 hrs.	5 81	9 34 ML	6 00	21 15	1 06 tn.	0-5	"

TABLE 6.—ESTIMATED COSTS OF FARM OPERATIONS (EASTERN CANADA)—Concluded

Machine and Operations	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Size	Power	Investment in Power and Equipment	Range of operation per 10-hr day	Assumed operation per 10-hr day	Assumed annual use of machine	Assumed annual use of power	Machine cost per 10-hr day	Power cost per 10-hr day	Operator's wage per day	Total Cost per 10-hr day	Cost per Unit as listed	Man hours per unit
				\$					\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
Miscellaneous—Concluded														
Manure wagon, H.			2 horses	400	7-12 tons	10 tons		500 hrs.	0 27	6 00	6 00	12 27	1 23 tn.	1-0 per tn.
"			"	"	10-17 tons	15 tons		500 hrs.	0 27	6 00	12 00	18 27	1 22 tn.	1-3 "
Distributor, fert. H.		8'	2 horses	390	8-16 ac	10 ac	35 ac	500 hrs.	6 74	6 00	6 00	18 74	1 87 tn.	1-0 "
Wagon, Std. H.			2 horses	475	(with rack)		750 hr.	500 hrs.	0 56	6 00	6 00	12 56		
Wagon, R. H.			2 P-T	1925	with comb. rack		750 hr.	500 hrs.	0 63	6 41 ML	6 00	13 04		
Fanning mill			Hand	100		100 bus.			8 36		6 00	14 36	14 bu.	0-1 per bu.
Grain thresher, T.		22 x 38	2-3 P.T.	4000		1000 bus.		500 hrs.	46 97	11 32 EH	6 00	64 29	06 bu.	
Grain thresher, T.		18 x 36	2 P-T	2500		500 bus.		500 hrs.	23 66	8 06 EH	5 00	37 72	08 bu.	
Feed grinder		6"	5 H.P.	315	(and fuel)	2-5 tns.	19 tns.	100 hrs.	2 63	4 12		6 75		
Feed grinder, Ec.			3 H.P.	250		2-0 tns.	15 tns.	75 hrs.	3 99			3 99		
					(with electric power at 2c, 2 K.W.H. per hour)		125 ac	500 hrs.	3 99			4 39		
Hammer mill, T.		18 H.P.	2-3 P-T	2250		15 tns.	75 tns.	500 hrs.	8 21	9 34 ML	6 00	23 55	1 57 tn.	
Sprayer, barrel		40 gal.	2 horses	300	2-4 ac	3-5 ac	20 hrs.	500 hrs.	6 38	6 00	6 00	18 38	5 25 ac	
Sprayer, traction		100 gal.	2 horses	540	4-7 ac	6 ac	35 hrs.	500 hrs.	8 53	6 00	6 00	20 53	3 42 ac	
Sprayer, power		2-3 H.P.	2 horses	950			75 hrs.	500 hrs.	12 83	6 00	6 00	24 83		
Sprayer, weed		20' boom	2 P-T	1750	25-50 ac	35 ac	70 ac	500 hrs.	14 18	5 75 LL	6 00	25 93	74 ac	
"		"	"	"	"	"	125 ac	500 hrs.	9 00	5 75 LL	6 00	20 75	59 ac	
"		"	"	"	(including spray materials at 45c per acre)							36 50	1 04 ac	

FOOTNOTE:—Refer to the section that stipulates the factors used in calculating costs and also to explanations of tables in the text, as well as the list of abbreviations. This table is compiled from the base tables 2, 4 and 5.

TABLE 7.—POWER, MACHINERY AND EQUIPMENT INVENTORY, INVESTMENT AND ANNUAL OPERATING COSTS

CULTIVATED LAND APPROXIMATELY 45 ACRES ON 50-ACRE FARM

Power Machinery and Equipment	EXAMPLE A			EXAMPLE B			EXAMPLE C		
	Value	Use	An. Cost	Value	Use	An. Cost	Value	Use	An. Cost
Power—Tractor and Fuel Horses and Feed	200		250	200	500 hrs.	300	\$1000 200	500 hrs.	\$220 250
Plow, horse and/or tractor Disk, harrow, H. and/or T.....	\$ 30	15ac.	\$ cts. 6 45	\$ 30	15ac.	\$ cts. 6 45	\$ 80	24ac.	\$ cts. 14 00
Corn cultivator..... Scuffler and/or hiller.....	80	45ac.	8 15	80	45ac.	8 15	80	45ac.	8 15
Roller and/or packer..... Field cultivator..... Harrow, spring and/or spike.....	25	23ac.	4 37	60	(2 items)	7 58	60	(2 items)	7 58
Grain drill..... Potato planter..... Mower..... Rake and/or tedder..... Hay loader..... Baler or press..... Corn binder..... Silo filler or blower..... Forage harvester..... Combine..... Grain binder..... Potato digger..... Manure spreader..... Wagons and sleigh..... Fanning mill..... Thresher..... Grinder or hammer mill..... Sprayer..... Milking machine..... Milk cooler..... Cream separator..... Water pump, hand or elec..... Special equipment..... Tools.....	140	(2 items)	13 14	140	(2 items)	13 14	140	(2 items)	13.14
	290	20ac.	25 34	290	20ac.	25 34	290	20ac.	25 34
	300	10ac.	25 52	300	10ac.	25 52	300	10ac.	25 52
	180	20ac.	17 88	180	20ac.	17 88	180	20ac.	17 88
	100	20ac.	8 76	100	20ac.	8 76	100	20ac.	8 76
	(In Examples A and C the Annual Cost per Horse has been Assumed to be less than the Average Cost or \$125 due to the Limited Amount of Work Involved)								
	550	25ac.	51 63	550	25ac.	51 63	550	25ac.	51 63
	300		34 35	300		34 35	300		34 35
				250		29 87	250		29 87
	25		2 00	25		2 00	25		2 00
	100		9 00	100		9 00	100		9 00
Investment in power..... Investment in equipment.....	200 1820			200 2405			1200 2455		
Total investment..... (Invest. per acre).....	2020 (45)			2605 (58)			3655 (81)		
Annual cost, power..... Annual cost, equipment.....			250 00 181 07			300 00 239 67			470 00 247 22
Total Annual Cost.....			431 07			539 67			717 22
Total Annual Cost per Acre.....			9 58			11 99			15 94

FOOTNOTE:—Example A—Two horses and approximately 11 items of equipment.

Example B—Similar to Example A but with 14 items of equipment including 3 units of potato equipment or equivalent specialized crop equipment.

Example C—Similar to Example B with 1-plow tractor and 2 horses.

TABLE 8.—POWER, MACHINERY AND EQUIPMENT INVENTORY, INVESTMENT AND ANNUAL OPERATING COSTS

CULTIVATED LAND APPROXIMATELY 70 ACRES ON A 100-ACRE FARM

Power Machinery and Equipment	EXAMPLE D			EXAMPLE E			EXAMPLE F		
	Value	Use	An. Cost	Value	Use	An. Cost	Value	Use	An. Cost
Power—Tractor and Fuel Horses and Feed..	\$400	500 hrs.	\$600 00	\$1500 \$200	250 hrs.	\$232 65 \$250 00	\$2000 \$ 200	250 hrs.	\$330 20 \$250 00
	\$		\$ cts.	\$		\$ cts.	\$		\$ cts.
Plow, horse and/or tractor	100	20 ac.	14 10	190	(2 items)	33 33	230	(2 items)	38 55
Disk harrow, H. and/or T.	110		11 44	180	50 ac.	17 65	220	56 ac.	23 95
Corn cultivator				180	50 ac.	23 65	230	50 ac.	27 40
Seuffler or hiller	25	23 ac.	4 37	60	(2 items)	7 58	60	(2 items)	7 58
Roller and/or packer	200	20 ac.	17 19	200	20 ac.	17 19	200	20 ac.	17 19
Field cultivator	200	45 ac.	18 99	200	40 ac.	21 82	200	70 ac.	23 71
Harrow, spring and/or spike	50	30 ac.	4 86	50	30 ac.	4 86	50	30 ac.	4 86
Grain drill	290	20 ac.	25 34	290	20 ac.	25 34	290	20 ac.	25 34
Potato planter				300	10 ac.	25 52	300	10 ac.	25 52
Mower	180	35 ac.	20 50	180	35 ac.	20 50	180	35 ac.	20 50
Rake and/or tedder	260	36 ac.	23 56	260	36 ac.	23 56	260	36 ac.	23 56
Hay loader	230	35 ac.	22 45	230	35 ac.	22 45	290	35 ac.	29 00
Baler or press									
Corn binder	500	10 ac.	44 40	500	10 ac.	44 40	500	10 ac.	44 40
Silo filler or blower							450	150 ton	49 21
Forage harvester	(In examples E and F the annual cost of horse labor has been reduced to \$125 because of the use of tractors)								
Combine									
Grain binder	550	25 ac.	51 63	550	25 ac.	51 63	550	25 ac.	51 63
Potato digger				300	10 ac.	29 50	300	10 ac.	29 50
Manure spreader	350	150 ton	35 48	350	150 ton	35 48	350	150 ton	35 48
Wagon and/or sleigh	375	(2 items)	39 50	375	(2 items)	39 30	375	(2 items)	39 30
Fanning mill	100		8 36	100		8 36	100		8 36
Thresher	Electric power for grinder included at 10 K.W. per ton at 2c or \$3.00								
Grinder or hammer mill	90	15 ton	16 05	90	15 ton	16 05	260	15 ton	32 90
Sprayer				250		29 87	250		29 87
Milking machine	(Power included)			325		64 60	325		64 60
Milk cooler	(Power included at \$15)						450		67 20
Cream separator	150	150 hrs.	15 77						
Water pump	20		2 00	200		33 22	200		33 22
Special equipment							50		4 50
Tools	100		9 00	100		9 00	100		9 00
Investment in power	400			1700			2200		
Investment in equipment	3880			5460			6770		
Total investment	4280			7160			8970		
(Investment per acre)	(61)			(102)			(128)		
Annual cost, power			600 00			482 65			580 20
Annual cost, equipment			384 79			604 86			766 33
Total annual cost			984 79			1087 51			1346 53
Total annual cost per acre			14 07			15 54			19 24

FOOTNOTE:—Example D—Four horses and approximately 20 items of equipment.

Example E—Similar to Example D but with 2-plow tractor, 2 horses, 4 units of potato equipment and milking machine.

Example F—Similar to Example D but with 3-plow tractor, 2 horses and silo filler and milk cooler. Total equipment 30 units.

TABLE 9.—POWER, MACHINERY AND EQUIPMENT INVENTORY, INVESTMENT AND ANNUAL OPERATING COSTS

CULTIVATED LAND APPROXIMATELY 150 ACRES ON 200-ACRE FARM

Power, Machinery and Equipment	EXAMPLE G			EXAMPLE H			EXAMPLE I		
	Value	Use	An.Cost	Value	Use	An.Cost	Value	Use	An.Cost
Power—Tractor and Fuel Horses and Feed.	\$1500 200	500 hrs.	320 40 250	\$2000 200	500 hrs.	467 20 300	\$3500 (TWO TRACTORS)	.....	\$700 00
	\$		\$ cts.	\$		\$ cts.	\$		\$ cts.
Plow, horse and/or tractor	190	(2 items)	40 05	190	(2 items)	40 05	310	(2 items)	51 02
Disk, harrow, H and/or T.....	220	80 ac.	25 11	220	80 ac.	25 11	220	80 ac.	25 11
Corn cultivator.....	180	60 ac.	23 65	180	60 ac.	23 65	180	60 ac.	23 65
Scuffler or hiller.....				60	(2 items)	7 58	50	.....	7 77
Roller and/or packer.....	200	40 ac.	18 38	200	40 ac.	18 38	200	40 ac.	18 38
Field Cultivator.....	200	80 ac.	23 71	200	80 ac.	23 71	200	80 ac.	23 71
Harrow.....	50	40 ac.	5 51	60	60 ac.	6 88	60	60 ac.	6 88
Grain drill.....	290	40 ac.	26 95	290	40 ac.	26 95	340	40 ac.	32 67
Potato planter.....				300	10 ac.	25 52	300	10 ac.	25 52
Mower.....	180	80 ac.	27 47	180	80 ac.	27 47	220	80 ac.	33 75
Rake and/or tedder.....	260	80 ac.	25 63	260	80 ac.	25 63	260	80 ac.	25 63
Hay loader.....	290	80 ac.	31 49	290	80 ac.	31 49	.....	.....	.....
Baler or press									
Corn binder.....	500	10 ac.	44 40	850	15 ac.	93 10	.....	.....	.....
Silo filler or blower.....							390	.....	43 62
Forage harvester.....							2000	500tn.	185 55
Combine.....									
Grain binder.....	550	60 ac.	54 90	550	60 ac.	54 90	670	60 ac.	80 12
Potato digger.....				480	10 ac.	50 91	480	10 ac.	50 91
Manure spreader.....	350	200 tn.	39 22	350	200tn.	39 22	400	200 tn.	42 40
Wagons and/or sleigh.....	375	(2 items)	39 30	625	.....	66 88	825	.....	86 93
Fanning mill.....	100		8 36	100		8 36	100		8 36
Thresher.....									
Grinder or hammer mill.....	90	20tn.	19 73	260	20tn.	35 48	260	20tn.	35 48
Sprayer.....				250		29 87	750		88 30
Milking machine.....	325		64 60	325		64 60	325		64 60
Milk cooler.....							520		79 00
Cream separator.....									
Water pump.....	200		33 22	200		33 22	200		33 22
Special equipment.....	50		4 50	50		4 50	100		9 00
Tools.....	100		9 00	200		18 00	200		18 00
Investment in power.....	1700			2200			3500		
Investment in equipment.....	4700			6670			9560		
Total investment.....	6400			8870			13060		
(Investment per acre).....	(43)			(59)			(87)		
Annual cost, power.....			570 40			767 20			700 00
Annual cost, equipment.....			565 18			781 46			1100 58
Total annual cost.....			1135 58			1548 66			1800 58
Total annual cost per acre.....			7 57			10 32			12 00

FOOTNOTE:—Example G—2 plow tractor, 2 horses and about 20 pieces of equipment.

Example H—Similar to Example G, but with 2-3 plow tractor, two horses, milking machine, and 4 units of potato equipment. Total equipment 26 units.

Example I—Similar to Example G, but with 2-plow tractor and 2-3 plow tractor, no horses, potato equipment, forage harvester and blower. Total units 28.

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