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OHIO FARM MACHINERY ECONOMIC COST ESTIMATES FOR 1992*

Revised and Adapted for Ohio
by
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The data which follows is designed as an aid in estimating farm machinery use or function costs for 1991. The estimates are determined by economic-engineering formula and represent an average farming industry cost for a specific machine or machine operation.

There are two types of costs associated with owning and operating a machine: overhead and operating. Overhead costs are incurred whether or not the machine is used, provided it is owned. Overhead costs include depreciation, interest, insurance, housing and taxes. Operating costs, which occur only when the machine is used, include fuel, lubrication, repairs and labor.

Overhead Costs: Each machine is costed over 10 years. Salvage value at 10 years of life ranges from 16 to 30 percent according to the current Agricultural Engineers *Standards* publication. Repair and maintenance calculations are based on the same source. Major purchases of new machinery remain infrequent. Good used equipment is scarce. Managers striving for cost control can sometimes still buy a second item twinned to one now in current use.

Purchase cost for equipment, as shown in the tables, is based on a survey of dealers, companies, and extension agents. The prices are not list prices, but rather reflect current market conditions. The survey showed evidence of some dealers making quite competitive price offers. Delivery charges are recognized. Commonly-purchased optional items are included. Purchase often includes a delay in delivery. Interest and insurance rates are assumed to be 10.5 percent and 0.75 percent of new cost, respectively. Housing cost is assumed to be 33 cents per square foot of shelter space needed per year.

Formulas used to compute machinery overhead costs:

$$\text{Depreciation per year} = \frac{\text{purchase cost} - \text{salvage value}}{\text{years you will use machine}}$$

$$\text{Interest per year} = \frac{\text{purchase cost} + \text{salvage value}}{2} \times \text{interest rate}$$

$$\text{Insurance per year} = \frac{\text{purchase cost} + \text{salvage value}}{2} \times \text{rate}$$

$$\text{Housing per year} = \text{price per sq. foot} \times \text{sq. feet shelter space required}$$

$$\text{Taxes per year} = 0 \text{ (no taxes on personal property in Ohio)}$$

Operating Expenses: Fuel cost is calculated by multiplying the fuel consumption by the price of fuel, with fuel consumption assumed to be .053 gallons of diesel fuel per drawbar HP hour. The price of farm fuel is assumed to be \$0.85 per gallon for diesel. All power units, tractors, combines, trucks, etc., are assumed to be diesel powered. An estimate of gasoline consumption can be made by multiplying the diesel fuel consumption by a factor of 1.36. Lubrica-

tion cost is assumed to be 10 percent of fuel cost. Supplies such as twine, wrapping or preservatives are not included.

The formulas for estimating the repair and maintenance costs estimate total accumulated repair costs according to the accumulated hours of use. The total costs are then broken down to a per hour cost estimate. The amount of annual use of a machine is an estimate of the number of hours a typical commercial farmer would likely use that particular machine in one year.

Labor Costs are kept separate from the operating expenses. Labor is charged at an hourly wage rate, which includes 30 percent of benefits, of \$7.25 per hour for unskilled labor and \$9.75 per hour for skilled labor. Labor per acre for an operation such as plowing and disking is calculated by using the work performance rate on the implement. Therefore, plows and disks using the same tractor have different per acre labor requirements. Less labor per acre is used in a disking operation that covers more acres per hour than in a plowing operation.

The following table compares the machinery function costs per acre for four selected items from 1989 to 1992.

Field Operation	1989	1990	1991	1992
plow 6-16's	\$12.26	\$12.61	\$13.19	\$13.42
corn planter 6-30	10.96	11.28	11.40	10.20
combine small grain	18.40	19.43	19.82	20.74
combine corn 6-30	28.75	30.42	31.71	30.91

These estimates are not necessarily representative of any one individual's cost, but can help plan the cropping operation if other data are not available. Differences in buying power, repair programs, average annual use, and overall replacement programs should be considered. Machinery costs are substantial; control of them is important. Custom charges are often based upon them.

No one should do custom work unless the charge will cover operating costs including labor. Ideally all allocated per acre or hour overhead costs should also be covered by anyone offering to do custom work. The market for custom work usually does not cover all costs unless acres per year are increased above the assumptions of this publication. The market is usually somewhere in between the operating costs and the total of operating and allocated overhead.

The following tables provide the 1992 machinery function costs broken down into several categories. Some relevant supporting data also are included.

TRACTORS AND COMBINES (WITHOUT HEADS)

Tractor Combine or Truck Size	Net Cost of The New Power Unit	Annual Hours of Use	-- Overhead --		-- Operating --		-- Total Cost --		Maintenance & Repair Cost/Hr.	Diesel Use/Hr. Gallons
			Cost per Year	Hour	Expense per Hour	Year	per Year of Use	/ Hour of Use		
40 Hp	15,485	500	2,250	4.50	2.91	1,456	3,706	7.41	0.93	2.1
60 Hp	19,475	500	2,826	5.65	4.14	2,071	4,897	9.79	1.17	3.2
75 Hp	24,550	500	3,557	7.11	5.19	2,597	6,154	12.31	1.47	4.0
100 Hp	36,530	550	5,278	9.60	7.37	4,052	9,330	16.96	2.41	5.3
120 Hp	50,475	550	7,278	13.23	9.28	5,103	12,381	22.51	3.33	6.4
140 Hp	53,610	550	7,751	14.09	10.48	5,762	13,512	24.57	3.54	7.4
160 Hp	58,500	600	8,452	14.09	12.14	7,284	15,736	26.23	4.21	8.5
180 Hp	65,670	600	9,479	15.80	13.65	8,189	17,668	29.45	4.73	9.5
190 HP	68,000	600	9,817	16.36	14.31	8,587	18,404	30.67	4.90	10.1
225 Hp 4Wd	70,825	500	10,235	20.47	14.70	7,348	17,583	35.17	3.54	11.9
250 Hp 4Wd	76,375	500	11,030	22.06	16.21	8,104	19,134	38.27	3.82	13.3
275 Hp 4Wd	81,960	500	11,831	23.66	17.73	8,865	20,696	41.39	4.10	14.6
300 Hp 4Wd	87,000	500	12,553	25.11	19.22	9,608	22,162	44.32	4.35	15.9
320 Hp 4Wd	90,875	500	13,109	26.22	20.40	10,201	23,310	46.62	4.54	17.0
350 Hp 4Wd	103,000	500	14,847	29.69	22.49	11,247	26,094	52.19	5.15	18.5
Sml Combine	66,000	300	9,866	32.89	31.47	9,442	19,308	64.36	26.52	5.3
Med Combine	81,000	300	12,118	40.39	38.49	11,548	23,666	78.89	32.55	6.4
Lrg Combine	95,500	300	14,297	47.66	45.56	13,669	27,966	93.22	38.37	7.7
Jmb Combine	101,000	300	15,138	50.46	50.49	15,148	30,285	100.95	40.58	10.6
Pickup Truck	13,925	500	2,135	4.27	3.50	1,751	3,885	7.77	0.70	3.0
Medium Truck	40,670	500	6,144	12.29	5.77	2,887	9,030	18.06	2.03	4.0
Tandem Truck	46,000	500	6,954	13.91	6.69	3,347	10,302	20.60	2.30	4.7

TILLAGE EQUIPMENT

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----			Operating Expense / Acre ³	Diesel Fuel Gal/Ac	
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor + Charge	Total = Dollars			
Chisel Plow 10 Ft	75	3,815	4.36	436	27.48	2.82	1.78	1.69	6.30	1.52	0.91
Chisel Plow 15 Ft	120	4,650	6.55	655	39.32	3.44	1.44	1.13	6.01	1.69	0.97
Chisel Plow 17 Ft	140	4,800	7.42	742	41.76	3.31	1.32	1.00	5.63	1.66	1.00
Chisel Plow 20 Ft	160	6,500	8.73	873	46.73	3.01	1.50	0.85	5.36	1.67	0.97
Chisel Plow Wing 24 Ft	225	9,625	10.47	1,047	61.14	3.36	1.77	0.71	5.84	1.75	1.14
Chisel Plow Wing 29 Ft	250	10,850	12.65	1,265	66.56	3.02	1.65	0.58	5.26	1.61	1.05
Chisel Plow Wing 35 Ft	300	13,050	15.27	1,527	76.72	2.90	1.64	0.48	5.02	1.58	1.04
Moldboard Plow 5-16	100	8,415	2.91	349	39.24	5.84	5.12	2.54	13.50	3.98	1.82
Moldboard Plow 6-16	120	9,935	3.49	454	46.86	6.45	4.86	2.12	13.42	4.17	1.82
Moldboard Plow 7-16	140	12,900	4.07	529	53.90	6.03	5.39	1.82	13.24	4.25	1.82
Moldboard Plow 8-16	160	14,500	4.65	605	58.26	5.64	5.30	1.59	12.52	4.26	1.82
Moldboard Plow 9-18	225	20,000	5.89	884	74.61	5.97	5.44	1.26	12.67	4.51	2.03
Moldboard Plow 10-18	225	22,000	6.55	982	77.80	5.37	5.38	1.13	11.89	4.24	1.82
Moldboard Plow 12-18	275	25,800	7.85	1,178	90.14	5.27	5.26	0.94	11.48	4.21	1.86
Field Cultivator 12 Ft	75	2,940	6.06	727	24.77	2.03	0.84	1.22	4.09	1.01	0.66
Field Cultivator 18 Ft	100	4,275	8.73	1,047	31.58	1.94	0.83	0.85	3.62	1.00	0.61
Field Cultivator 28 Ft	160	10,515	13.58	1,629	50.58	1.93	1.25	0.54	3.73	1.14	0.62
Field Cultivator 37 Ft	225	12,785	17.94	2,153	63.06	1.96	1.14	0.41	3.52	1.05	0.67
Field Cultivator 50 Ft	250	18,750	24.24	2,909	75.47	1.58	1.23	0.31	3.11	0.92	0.55

See footnotes at end of table.

TILLAGE EQUIPMENT - CONTINUED

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----				Operating Expense / Acre ³	Diesel Fuel Gal/Ac	
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor Charge	Total Dollars				
Disk Chisel	9 Ft	100	6,200	3.82	382	35.01	4.44	2.79	1.94	9.17	2.22	1.39
Disk Chisel	11 Ft	120	6,975	4.91	638	39.64	4.59	1.98	1.51	8.07	2.20	1.30
Disk Chisel	14 Ft	140	8,825	6.00	1,200	41.26	4.09	1.55	1.23	6.88	2.18	1.24
Tandem Disk	10 Ft	60	3,945	4.85	485	24.14	2.02	1.43	1.53	4.98	1.00	0.66
Tandem Disk	16 Ft	75	6,160	7.76	776	30.57	1.59	1.40	0.95	3.94	0.81	0.51
Tandem Disk	17 Ft	75	9,800	8.24	824	36.52	1.49	2.04	0.90	4.43	0.84	0.48
Tandem Disk	20 Ft	100	10,330	9.70	970	42.32	1.75	1.85	0.76	4.36	0.95	0.55
Tandem Disk	21 Ft	100	12,290	10.18	1,018	45.48	1.67	2.07	0.73	4.47	0.94	0.52
Tandem Disk	24 Ft	120	13,360	11.64	1,164	52.81	1.93	1.97	0.64	4.54	1.00	0.55
Tandem Disk	28 Ft	140	15,345	13.58	1,358	58.21	1.81	1.93	0.54	4.29	0.98	0.55
Tandem Disk	32 Ft	160	16,420	15.52	1,552	61.66	1.69	1.81	0.48	3.97	0.97	0.55
Tandem Disk	40 Ft	180	23,295	19.39	1,939	76.39	1.52	2.04	0.38	3.94	0.92	0.49
Offset Disk	14 Ft	140	7,650	6.11	611	45.39	4.02	2.20	1.21	7.43	1.94	1.21
Offset Disk	16 Ft	160	8,885	6.98	698	49.21	3.76	2.23	1.06	7.05	1.97	1.21
Offset Disk	18 Ft	180	9,500	7.85	785	53.55	3.75	2.13	0.94	6.82	1.96	1.21
Offset Disk Wing	21 Ft	225	11,710	9.16	916	62.78	3.84	2.21	0.81	6.85	1.83	1.30
Offset Disk Wing	23 Ft	225	15,575	10.04	1,004	69.22	3.50	2.66	0.74	6.90	1.74	1.19
Landplane	45-12 Ft	180	7,945	6.40	480	57.51	4.60	3.16	1.22	8.99	2.46	1.49
Landplane	55-14 Ft	225	17,040	8.00	600	84.86	4.40	5.23	0.98	10.61	2.41	1.49
Landplane	70-14 Ft	225	18,070	7.47	560	87.92	4.71	6.02	1.05	11.77	2.62	1.60
Springtooth Drag	30	60	2,205	16.00	480	29.54	0.61	0.74	0.49	1.85	0.28	0.20
Springtooth Drag	48	75	2,755	27.93	977	34.11	0.44	0.50	0.28	1.22	0.21	0.14
Spring Tooth Drag	58 Ft	100	4,285	33.75	3,375	32.89	0.50	0.26	0.21	0.97	0.27	0.16

PLANTING EQUIPMENT

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----			Operating Expense / Acre ³	Diesel Fuel Gal/Ac	
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor + Charge	Total = Dollars			
Corn Planter 4-36	40	8,575	3.93	275	40.75	1.89	5.61	2.88	10.38	1.54	0.54
Corn Planter 6-36	60	12,175	5.89	412	52.22	1.66	5.28	1.92	8.86	1.46	0.54
Corn Planter 6-30	60	11,325	4.91	344	50.06	2.00	5.90	2.30	10.20	1.69	0.65
Corn Planter 8-30	75	15,090	6.55	458	62.08	1.88	5.88	1.73	9.48	1.63	0.61
Corn Planter 12-30	100	21,750	9.82	687	83.76	1.73	5.65	1.15	8.53	1.56	0.54
Min-Til Planter 4-36	60	9,965	3.05	214	46.59	3.21	8.34	3.70	15.25	2.55	1.04
Min-Til Planter 6-36	75	13,850	4.58	321	58.90	2.69	7.70	2.47	12.86	2.24	0.87
Min-Til Planter 8-36	100	19,085	6.11	428	76.67	2.78	7.92	1.85	12.55	2.35	0.87
Min-Til Planter 6-30	75	13,350	3.82	267	57.61	3.22	8.90	2.96	15.09	2.64	1.04
Min-Til Planter 8-30	100	18,160	5.09	356	74.37	3.33	9.05	2.22	14.61	2.75	1.04
Min-Til Planter 12-30	160	24,375	7.64	535	99.27	3.43	8.08	1.48	13.00	2.75	1.11
Seed Potato Filler		6,725	5.75	322	20.46	0.00	3.56	0.00	3.56	0.29	0.02
Potato Row Marker 4 Row	120	8,470	4.98	214	64.94	4.52	6.09	2.43	13.04	2.00	1.28
Potato Row Marker 6 Row	140	12,860	7.47	321	82.75	3.29	6.17	1.62	11.08	1.54	0.99
Potato Planter 4 Row	120	26,260	3.83	214	121.04	5.88	20.22	5.50	31.60	4.38	1.66
Potato Planter 6 Row	140	36,765	5.75	322	154.14	4.28	18.88	3.67	26.83	3.65	1.29
Beet Planter 12 Row	100	22,255	4.67	280	91.81	3.63	13.45	2.59	19.67	3.05	1.14
Grain Drill Pw 12 Ft	40	8,375	4.78	382	37.81	1.55	4.10	2.26	7.91	1.35	0.44
Grain Drill Pw 14 Ft	40	9,845	5.57	446	41.20	1.33	4.12	1.94	7.39	1.27	0.38
Grain Drill Pw 16 Ft	60	11,140	6.37	510	46.62	1.54	4.08	1.70	7.32	1.39	0.50
Grain Drill Pw 20 Ft	75	14,475	7.96	637	56.88	1.55	4.24	1.36	7.14	1.42	0.50
Grain Drill Pw 24 Ft	75	18,835	9.56	765	66.96	1.29	4.59	1.13	7.01	1.38	0.42
Grain Drill Pw 28 Ft	100	21,875	11.15	892	78.71	1.52	4.57	0.97	7.06	1.49	0.48

See footnotes at end of table.

MAINTENANCE EQUIPMENT

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----			Operating Expense / Acre ³	Diesel Fuel Gal/Ac	
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor + Charge	Total = Dollars			
Cultivator 4-36	40	2,975	4.65	465	20.30	1.59	1.15	1.62	4.36	0.77	0.46
Cultivator 6-36	60	4,440	6.98	698	25.32	1.40	1.14	1.08	3.63	0.73	0.46
Cultivator 6-30	60	3,500	5.82	582	23.63	1.68	1.08	1.30	4.06	0.84	0.55
Cultivator 8-30	75	5,950	7.76	776	30.46	1.59	1.37	0.97	3.93	0.84	0.51
Cultivator 12-30	140	8,265	11.64	1,164	46.66	2.11	1.25	0.65	4.01	1.06	0.64
Ridge-Cultivator 4-36	75	5,075	4.65	465	28.85	2.64	1.92	1.64	6.20	1.36	0.86
Ridge-Cultivator 6-36	100	7,065	6.98	698	37.03	2.43	1.78	1.09	5.30	1.28	0.76
Ridge-Cultivator 8-36	100	10,420	9.31	931	42.80	1.82	1.96	0.82	4.60	1.04	0.57
Ridge-Cultivator 6-30	100	6,665	5.82	582	36.20	2.92	2.01	1.30	6.22	1.52	0.91
Ridge-Cultivator 8-30	100	9,125	7.76	776	40.46	2.19	2.06	0.97	5.22	1.21	0.68
Ridge-Cultivator 12-30	160	15,340	11.64	1,164	61.58	2.25	2.29	0.75	5.29	1.33	0.73
Rotary Hoe 16 Ft	40	2,750	10.86	434	26.38	0.68	1.08	0.67	2.43	0.31	0.20
Potato Cultivator 4 Row	75	3,395	6.13	889	24.56	2.01	0.77	1.23	4.01	1.04	0.65
Potato Cultivator 6 Row	75	5,335	9.19	1,287	27.47	1.34	0.83	0.82	2.99	0.76	0.43
Beet Cultivator 12 Ro	100	7,955	6.00	360	45.97	2.83	3.58	1.26	7.66	1.39	0.88
Sprayer 30 Ft	40	3,350	14.18	1,135	27.72	0.52	0.57	0.86	1.95	0.30	0.15
Sprayer 50 Ft	60	4,225	23.64	2,364	30.65	0.41	0.37	0.52	1.30	0.25	0.13
Sprayer Hi Pres 50 Ft	60	18,425	23.64	2,364	57.56	0.41	1.51	0.52	2.44	0.49	0.13
Anhydrous Applicator	160	14,315	12.73	509	100.54	2.06	5.08	0.76	7.90	1.77	0.67
Fert. Sprd. 40 Ft.&4 T.	60	7,455	38.79	1,164	62.16	0.25	1.10	0.25	1.60	0.23	0.08
Stalk Chopper 12 Ft	60	6,640	4.36	436	28.73	2.24	2.68	1.66	6.58	1.30	0.73
Fanure Spreader 150 Bu	75	3,800	3.49	349	29.17	3.53	2.71	2.12	8.36	2.52	1.14
Fanure Spreader 225 Bu	100	4,850	3.49	349	36.45	4.86	3.46	2.12	10.44	3.43	1.52
Fanure Spreader 400 Bu	100	8,500	4.65	465	45.44	3.64	4.53	1.59	9.76	3.32	1.14
Gravity Box 185 Bu	60	1,585	1.65	215	20.03	5.92	1.81	4.38	12.11	2.91	1.92
Gravity Box 240 Bu	75	2,010	1.65	215	23.24	7.44	2.23	4.38	14.05	3.65	2.41
Paled Hay Wagon	40	2,075	3.78	945	24.55	1.96	0.70	3.83	6.49	1.07	0.56
Storage Wagon 14 Ft	40	4,900	1.65	215	22.85	4.48	4.95	4.38	13.81	3.01	1.28
Storage Wagon 16 Ft	40	6,875	1.65	215	36.61	4.48	13.26	4.38	22.13	5.27	1.28
Stock Picker	75	7,600	1.42	85	45.45	8.68	18.26	5.11	32.05	8.03	2.81

See footnotes at end of table.

HARVESTING EQUIPMENT

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----				Operating Expense / Acre ³	Diesel Fuel Gal/Ac
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor + Charge	Total = Dollars			
Mower-Conditioner 9 Ft.	40	8,350	4.09	327	33.25	1.81	4.37	1.95	8.13	1.18	0.52
Rotary Mower 6 Ft.	40	4,190	2.73	273	23.00	2.72	3.06	2.66	8.43	1.77	0.78
Rotary Mow/Cond. 9 Ft.	75	10,200	4.64	371	41.65	2.65	4.69	1.64	8.98	1.62	0.86
Rake (Hyd) 9 Ft	40	3,240	3.49	698	18.88	2.12	1.21	2.08	5.41	1.30	0.61
Hay Swather-Cond 12 Ft		31,690	5.45	436	72.93	0.00	12.04	1.33	13.37	1.06	0.51
Swather-Cond 15 Ft		34,765	6.82	545	79.47	0.00	10.59	1.06	11.66	0.94	0.45
Swather 12 Ft		20,435	5.82	465	50.37	0.00	7.41	1.25	8.66	0.72	0.40
Swather 15 Ft		23,550	7.27	582	57.18	0.00	6.86	1.00	7.86	0.69	0.38
Swather 18 Ft		24,715	8.73	698	59.67	0.00	6.01	0.83	6.84	0.58	0.32
Swather 20 Ft		25,080	9.70	776	60.81	0.00	5.52	0.75	6.27	0.56	0.32
1 Ton Hay Stacker	60	12,600	4.15	829	35.31	2.36	3.54	2.61	8.52	2.22	0.77
3 Ton Hay Stacker	75	18,000	4.84	1,064	43.41	2.54	4.19	2.24	8.98	2.68	0.82
6 Ton Hay Stacker	100	32,155	5.53	1,548	62.11	3.07	6.21	1.96	11.24	4.38	0.96
Hay Baler Pto Twine	40	8,920	3.78	756	28.76	1.96	2.78	2.86	7.60	1.71	0.56
Round Baler 1000 Lb	60	10,750	3.01	603	30.32	3.25	4.14	2.67	10.06	2.80	1.06
Round Baler 1500 Lb	60	12,600	4.64	927	32.41	2.11	3.14	1.74	6.99	1.97	0.69
Rd Baler/Wrapper 1000 L	60	13,900	3.01	603	33.93	3.25	5.34	2.67	11.26	3.22	1.06
Bale Wrapper Silage	60	10,370	2.48	372	38.60	3.95	8.69	2.92	15.55	6.15	1.28
Bale Wrapper Dry Hay	40	4,625	2.48	372	24.35	2.99	3.90	2.92	9.81	3.17	0.85
Forage Harvester 1 Row	60	12,055	0.95	95	41.70	10.36	22.30	11.45	44.10	7.31	3.36
Forage Harvester 2 Row	100	15,720	1.65	165	55.29	10.25	16.62	6.54	33.42	6.64	3.20
Forage SP Harvstr 2 Row		76,325	2.04	305	104.41	0.00	45.96	5.31	51.27	8.47	2.41
Forage SP Harvstr 3 Row		107,800	3.05	458	142.37	0.00	43.07	3.54	46.61	7.79	2.06

See footnotes at end of table.

HARVESTING EQUIPMENT - CONTINUED

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated -- Work Performed		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----			Operating Expense / Acre ³	Diesel Fuel Gal/Ac	
			Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor + Charge	Total = Dollars			
Large Forage Blower	60	4,025	1.00	50	29.69	9.79	12.64	7.25	29.69	4.67	3.18
Corn Picker 2-36	40	18,765	1.42	213	41.64	5.23	16.50	7.63	29.36	5.19	1.49
Picker-Sheller 2-Row	60	16,730	1.49	223	41.51	6.58	14.03	7.27	27.88	5.45	2.14
Sm Combine Grain Sml	Sml	7,500	4.10	819	82.82	15.71	1.86	2.64	20.21	8.15	1.29
Sm Combine Grain Med	Med	8,175	4.73	945	98.03	16.69	1.76	2.29	20.74	8.59	1.35
Sm Combine Grain Lge	Lrg	9,940	6.30	1,261	114.15	14.79	1.60	1.72	18.11	7.63	1.22
Soybean Combine Sml	Sml	9,740	3.58	717	85.07	17.95	2.76	3.02	23.73	9.48	1.48
Soybean Combine Med	Med	11,325	4.14	827	101.19	19.07	2.78	2.62	24.46	10.01	1.54
Soybean Combine Lge	Lrg	12,550	4.96	993	116.80	18.78	2.57	2.18	23.53	9.83	1.55
Corn Combine 3-30 Sm	Sml	9,320	2.07	414	84.65	31.12	4.58	5.23	40.93	16.38	2.56
Corn Combine 2-38 Sm	Sml	5,945	1.74	347	81.25	37.05	3.49	6.23	46.77	19.00	3.05
Corn Combine 3-38 Sm	Sml	10,680	2.62	524	86.01	24.57	4.13	4.13	32.83	13.06	2.02
Corn Combine 4-36 Md	Med	12,695	3.12	624	102.60	25.28	4.13	3.47	32.89	13.38	2.04
Corn Combine 4-30 Md	Med	12,120	2.60	520	101.99	30.34	4.72	4.16	39.23	16.00	2.45
Corn Combine 6-30 Lg	Lrg	16,280	3.90	780	120.56	23.90	4.24	2.78	30.91	12.76	1.97
Corn Combine 8-30 Lg	Lrg	21,175	4.73	945	125.53	19.72	4.55	2.29	26.55	10.79	1.63
Corn Combine 12-30 Jmb	Jmb	34,510	7.09	1,418	146.63	14.24	4.92	1.53	20.68	8.37	1.49
Potato Windrower 2 Row	75	8,485	1.42	142	40.92	8.68	15.07	5.11	28.86	9.35	2.81
Potato Harvester Seed 2	120	50,860	1.49	320	100.86	15.07	34.43	18.02	67.52	16.83	4.26
Potato Harvester 2 Row	120	45,860	1.99	319	105.09	11.30	27.95	13.51	52.76	11.05	3.19
Rotary Disk Bean Cutter	100	9,975	5.20	416	48.37	3.26	3.96	2.08	9.30	1.74	1.02
Beet Lifter 4 Row	100	36,025	3.47	277	102.63	4.90	21.60	3.12	29.62	4.31	1.53
Beet Lifter 6 Row	120	45,625	5.20	416	128.20	4.33	18.24	2.08	24.65	3.63	1.22
Beet Topper 6 Row	75	14,980	4.67	373	53.33	2.64	6.70	2.09	11.43	1.73	0.85
Beet Topper 12 Row	140	28,355	9.33	747	93.40	2.63	6.33	1.04	10.01	1.71	0.79
Beet Wagon 8 Ton	75	7,810	3.47	277	36.33	3.55	4.84	2.09	10.49	1.93	1.15

SPECIALTY CROP EQUIPMENT

Machine	Tractor Size (HP)	Net Cost of A New Implement	-- Estimated --		Total ¹ Cost /Hour	----- Total Cost / Acre ² -----			Operating Expense ³ / Acre	Diesel Fuel Gal/Ac	
			Work Performed Acres/hr	Ac/yr		Equipment Tractor + Machine	Labor Charge	Total Dollars			
Spec. Crop Planter 1 Row	40	2,175	1.94	136	21.38	3.82	3.47	3.74	11.03	2.46	1.09
Spec. Crop Cult. 1 Row	40	1,300	1.94	136	18.77	3.82	2.12	3.74	9.68	2.07	1.09
Transplanter 1 Row	40	2,090	1.94	136	21.13	3.82	3.34	3.74	10.90	2.42	1.09
Transplanter 2 Row	40	3,215	2.91	204	26.72	2.55	3.46	2.49	8.50	1.94	0.73
Transplanter 4 Row	60	5,890	2.18	327	29.65	4.49	5.78	3.32	13.59	4.79	1.46
Precision Seeder 4 Unit	160	8,270	1.42	284	49.56	18.49	11.34	5.11	34.95	15.38	5.98
Stripper 4 Row	75	3,750	2.84	284	29.37	4.34	3.46	2.56	10.35	3.09	1.40

¹Total cost per hour is calculated as yearly depreciation, interest, insurance, housing and repairs divided by hours used per year. Implement and power unit costs are summed. Fuel, lubricants and labor are added to the total.

²Total cost per acre is also total cost per hour divided by acres per hour. Includes operating expenses, labor, and overhead costs.

³Fuel, lubricants, repairs and maintenance, but not labor. Labor is listed separately.

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