

# Estimating Farm Machinery Costs

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This publication provides a guide for estimating the cost of owning and operating farm machinery. The data in Table 1 represents the cost per hour of owning and operating tractors but does not include labor cost. Table 2 presents both a total cost per hour and a cost per acre for performing the specified operations including labor cost. The implement width, tractor horsepower, and performance rate are given for each operation. Tractors are designated as typical rear wheel drive (2WD), mechanical front wheel drive (MFWD), four-wheel drive (4WD), or on tracks (TRACK). It is assumed that equipment is fully utilized.

**Operating costs** for field operations in Table 2 include repairs and maintenance, fuel, and labor. Tractor costs in Table 1 do not include labor. Since the tractor costs are already presented in dollars per hour the user can easily add a specific hourly wage to the costs. Operating interest is not included in either table. Specific costs include diesel, \$2.60/gal, and labor; \$14.68/hr. Repairs are estimated as a percent of purchase price based on American Society of Agricultural and Biological Engineers standards.

**Ownership costs** include depreciation and interest. These costs have been derived by the capital recovery method which determines the amount of money that should be set aside each year to replace the value of equipment used in production. Various financing arrangements and tax depreciation methods can produce costs that vary significantly from these estimates in a given year. If capital is borrowed to buy a machine, the lender will determine the interest

rate to charge. But if personal capital (i.e. savings) is used, the rate to charge will depend on the opportunity cost of investing that capital elsewhere. If only part of a capital purchase is financed or borrowed, an average of the two rates should be used. The calculations in the following tables assume an interest rate of 4.5 percent for capital recovery estimation.

Items such as taxes and insurance are left out of these calculations. These specific costs vary widely among farms so as to make routine calculation for representative situations impractical. These items should, however, be considered by the individual producer and factored into final budgets. Representative purchase prices for equipment are based on numerous sources of information including average U.S. prices and industry list prices.

This information may also be used in comparing or estimating custom rates. Farmers often perform custom work in order to spread out their ownership costs. Although custom rates do not always cover total operating and ownership costs, farmers should charge enough to cover all operating expenses and at least some ownership costs. Otherwise, performing custom work only wears out equipment without spreading out costs. In cases where custom operations are intended to be a form of income, adding 10 to 15 percent to the estimated total cost is customary as the operator's profit; however, custom operators should evaluate the costs based upon their annual usage and other specific parameters from their operation.

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**Table 1. Estimated Tractor Costs Per Hour**

Tractor	Horse Power (PTO)	Annual Hours Use	Diesel Fuel Use (gal/hour)	\$/hour				
				Fuel, Oil & Lube	Repairs & Maint.	Total Direct	Fixed Costs	Total Costs
Tractor (20-39hp) CB	MFWD 30	600	1.5	\$3.90	\$0.94	\$4.84	\$5.46	\$10.30
Tractor (20-39hp) RB	MFWD 30	600	1.5	\$3.90	\$0.64	\$4.54	\$3.75	\$8.29
Tractor (40-59hp) CB	2WD 50	600	2.6	\$6.76	\$0.96	\$7.72	\$5.61	\$13.33
Tractor (40-59hp) CB	MFWD50	600	2.6	\$6.76	\$1.29	\$8.05	\$7.51	\$15.56
Tractor (40-59hp) RB	2WD 50	600	2.6	\$6.76	\$0.67	\$7.43	\$3.94	\$11.37
Tractor (40-59hp) RB	MFWD 50	600	2.6	\$6.76	\$0.85	\$7.61	\$4.93	\$12.54
Tractor (60-89hp) CB	2WD 75	600	3.9	\$10.14	\$1.66	\$11.80	\$9.66	\$21.46
Tractor (60-89hp) CB	MFWD 75	600	3.9	\$10.14	\$1.80	\$11.94	\$10.46	\$22.40
Tractor (60-89hp) RB	2WD 75	600	3.9	\$10.14	\$1.20	\$11.34	\$6.97	\$18.31
Tractor (60-89hp) RB	MFWD 75	600	3.9	\$10.14	\$1.30	\$11.44	\$7.59	\$19.03
Tractor (90-119hp) CB	2WD 105	600	5.4	\$14.04	\$2.22	\$16.26	\$12.93	\$29.19
Tractor (90-119hp) CB	MFWD 105	600	5.4	\$14.04	\$2.86	\$16.90	\$16.65	\$33.55
Tractor (90-119hp) RB	2WD 105	600	5.4	\$14.04	\$2.01	\$16.05	\$11.73	\$27.78
Tractor (90-119hp) RB	MFWD 105	600	5.4	\$14.04	\$2.24	\$16.28	\$13.05	\$29.33
Tractor (120-139hp) CB	2WD 130	600	6.7	\$17.42	\$3.53	\$20.95	\$20.52	\$41.47
Tractor (120-139hp) CB	MFWD 130	600	6.7	\$17.42	\$3.93	\$21.35	\$22.88	\$44.23
Tractor (140-159hp) CB	2WD 150	600	7.7	\$20.02	\$3.46	\$23.48	\$20.15	\$43.63
Tractor (140-159hp) CB	MFWD 150	600	7.7	\$20.02	\$4.46	\$24.48	\$25.97	\$50.45
Tractor (160-179hp) CB	MFWD 170	600	8.8	\$22.88	\$5.00	\$27.88	\$30.47	\$58.35
Tractor (180-199hp) CB	MFWD 190	600	9.8	\$25.48	\$6.06	\$31.54	\$36.95	\$68.49
Tractor (200-249hp) CB	MFWD 225	600	11.6	\$30.16	\$7.28	\$37.44	\$44.38	\$81.82
Tractor (250-349hp) CB	4WD 300	600	15.4	\$40.04	\$9.81	\$49.85	\$59.81	\$109.66
Tractor (250-349hp) CB	MFWD 300	600	15.4	\$40.04	\$10.30	\$50.34	\$61.14	\$111.48
Tractor (250-349hp) CB	Track 300	600	15.4	\$40.04	\$10.28	\$50.32	\$62.67	\$112.99
Tractor (350-449hp) CB	4WD 400	600	20.6	\$53.56	\$14.15	\$67.71	\$86.29	\$154.00
Tractor (350-449hp) CB	Track 400	600	20.6	\$53.56	\$11.43	\$64.99	\$69.72	\$134.71
Tractor (450-550hp) CB	4WD 500	600	25.7	\$66.82	\$12.87	\$79.69	\$78.48	\$158.17
Tractor (450-550hp) CB	Track ~500	600	25.7	\$66.82	\$14.68	\$81.50	\$89.53	\$171.03

**Per hour tractor cost estimates do not include labor.**

2WD = Rear-Wheel Drive

MFWD = Mechanical Front-Wheel Drive

4WD = Four-Wheel Drive

Track = Equipment Track Driven

RB = Roll Bar

CB = Tractor Cab

**Table 2. Estimated Farm Machinery Costs Per Acre**

Operation	Size*	Horse-Power (PTO)	Performance Rate (ac/hr)	Total Machinery Cost Per Hour (\$/hour)	Operating Cost			Ownership Cost (\$/acre)	Total Specified Cost Per Acre (\$/acre)
					Repairs & Maint. (\$/acre)	Fuel, Oil & Lube (\$/acre)	Labor (\$/acre)		
<b>TILLAGE EQUIPMENT</b>									
Bed/Lister-Roll-Fold	8R-38	MFWD 190	10.5	\$105.38	\$1.16	\$2.43	\$1.40	\$5.02	\$10.01
Bed/Lister-Roll-Fold	12R-30	MFWD 225	12.5	\$130.89	\$1.34	\$2.43	\$1.18	\$5.52	\$10.47
Bed/Lister-Roll-Fold	12R-38	MFWD 225	15.9	\$130.33	\$1.04	\$1.92	\$0.93	\$4.32	\$8.21
Bed/Lister-Roll-Fold	16R-30	MFWD 225	16.7	\$140.82	\$1.17	\$1.82	\$0.89	\$4.57	\$8.45
Bed-Rip/Disk Fold.	8R-38	MFWD 190	13.7	\$95.79	\$0.61	\$1.85	\$1.07	\$3.46	\$6.99
Bed-Rip/Disk Fold.	12R-30	MFWD 225	16.4	\$115.62	\$0.64	\$1.85	\$0.90	\$3.66	\$7.05
Bed-Rip/Disk Fold.	12R-38	MFWD 25	21.7	\$114.72	\$0.48	\$1.38	\$0.67	\$2.75	\$5.28
Bed/Disk (Hipper)	8R-30	MFWD 190	10.8	\$102.04	\$1.04	\$2.38	\$1.37	\$4.70	\$9.49
Bed/Disk (Hipper)	8R-38	MFWD 190	13.5	\$102.03	\$0.84	\$1.87	\$1.08	\$3.76	\$7.55
Bed/Disk (Hipper)	12R-30	MFWD 225	16.1	\$132.42	\$1.07	\$1.87	\$0.91	\$4.36	\$8.21
Bed/Disk (Hipper)	12R-38	MFWD225	20.4	\$142.22	\$0.98	\$1.48	\$0.72	\$3.79	\$6.97
Bed/Disk w/roller	8R-30	MFWD 190	10.8	\$107.53	\$1.19	\$2.38	\$1.37	\$5.06	\$10.00
Bed/Disk w/roller	8R-38	MFWD 190	13.5	\$110.00	\$1.01	\$1.87	\$1.08	\$4.18	\$8.14
Bed/Disk w/roller	12R-30/38	MFWD 225	16.1	\$142.10	\$1.24	\$1.87	\$0.91	\$4.79	\$8.81
Chisel Plow-Folding	24'	MFWD 190	13.2	\$125.50	\$1.66	\$1.94	\$1.12	\$4.82	\$9.54
Chisel Plow-Folding	32'	MFWD 225	17.5	\$150.42	\$1.55	\$1.73	\$0.84	\$4.45	\$8.57
Chisel Plow-Folding	42'	MFWD 225	22.7	\$159.45	\$1.36	\$1.33	\$0.64	\$3.69	\$7.02
Chisel Plow-Folding	50'	MFWD 225	27.8	\$183.19	\$1.40	\$1.11	\$0.54	\$3.55	\$6.60
Chisel Plow-Rigid	20'	MFWD 225	9.8	\$109.58	\$1.23	\$3.08	\$1.50	\$5.37	\$11.18
Cultivate & Post	8R-30	MFWD 190	9.1	\$116.89	\$1.57	\$2.79	\$2.11	\$6.39	\$12.86
Cultivate & Post	8R-38	MFWD 190	11.6	\$122.67	\$1.35	\$2.21	\$1.67	\$5.32	\$10.55
Cultivate & Post	12R-30	MFWD 225	13.7	\$148.26	\$1.50	\$2.19	\$1.40	\$5.73	\$10.82
Cultivate & Post	12R-38	MFWD 225	17.5	\$153.93	\$1.25	\$1.73	\$1.11	\$4.68	\$8.77
Cultivate & Post	16R-30	MFWD 225	18.2	\$165.44	\$1.40	\$1.65	\$1.05	\$5.00	\$9.10
Disk & Incorporate	24'	MFWD 190	11.5	\$131.03	\$1.92	\$2.21	\$1.67	\$5.60	\$11.40
Disk & Incorporate	28'	MFWD 225	13.5	\$153.57	\$1.96	\$2.24	\$1.43	\$5.73	\$11.36
Disk & Incorporate	32'	MFWD 225	15.4	\$157.26	\$1.81	\$1.97	\$1.25	\$5.19	\$10.22
Disk Harrow	28'	MFWD 225	14.3	\$143.69	\$1.60	\$2.11	\$1.02	\$5.33	\$10.06
Disk Harrow	32'	MFWD 225	16.4	\$148.62	\$1.48	\$1.84	\$0.90	\$4.85	\$9.07
Disk Harrow	42'	MFWD 225	21.7	\$189.22	\$1.73	\$1.39	\$0.68	\$4.90	\$8.70
Disk Heavy	20'	MFWD 170	10.3	\$121.08	\$1.79	\$2.47	\$1.42	\$6.07	\$11.75
Disk Heavy	28'	MFWD 190	13.3	\$144.77	\$1.72	\$2.28	\$1.11	\$5.75	\$10.86
Ditcher		2WD 130	50.0	\$60.50	\$0.11	\$0.34	\$0.29	\$0.47	\$1.21
Field Cultivate Fld	24'	MFWD 170	16.1	\$112.44	\$0.79	\$1.41	\$0.91	\$3.86	\$6.97
Field Cultivate Fld	32'	MFWD 190	21.7	\$139.41	\$0.78	\$1.17	\$0.68	\$3.78	\$6.41
Field Cultivate Fld	42'	MFWD 225	28.6	\$173.26	\$0.77	\$1.05	\$0.52	\$3.72	\$6.06

**Table 2. Estimated Farm Machinery Costs Per Acre (Cont.)**

Operation	Size*	Horse-Power (PTO)	Performance Rate (ac/hr)	Total Machinery Cost Per Hour (\$/hour)	Operating Cost			Ownership Cost (\$/acre)	Total Specified Cost Per Acre (\$/acre)
					Repairs & Maint. (\$/acre)	Fuel, Oil & Lube (\$/acre)	Labor (\$/acre)		
<b>TILLAGE EQUIPMENT (Cont.)</b>									
Field Cultivate Fld	50'	MFWD 225	34.5	\$188.07	\$0.72	\$0.88	\$0.43	\$3.42	\$5.45
Harrow - Folding	24'	MFWD 190	15.6	\$95.50	\$0.70	\$1.63	\$0.94	\$2.84	\$6.11
Harrow - Folding	30'	MFWD 190	19.6	\$97.04	\$0.58	\$1.31	\$0.75	\$2.31	\$4.95
Harrow - Folding	40'	MFWD 190	26.3	\$102.79	\$0.51	\$0.99	\$0.56	\$1.85	\$3.91
Harrow - Folding	48'	MFWD 225	31.3	\$119.03	\$0.52	\$0.97	\$0.47	\$1.85	\$3.81
Land Plane	50'x16'	MFWD 190	6.6	\$90.08	\$1.20	\$3.84	\$2.22	\$6.34	\$13.60
Levee disk/seeder	8 Blade	MFWD 170	333.3	\$86.00	\$0.01	\$0.07	\$0.05	\$0.13	\$0.26
Levee disk	8 blade	MFWD 170	333.3	\$86.00	\$0.01	\$0.07	\$0.05	\$0.13	\$0.26
Levee Splitter	32"	MFWD 150	250.0	\$67.00	\$0.01	\$0.07	\$0.06	\$0.13	\$0.27
Roller/Stubble	20'	2WD 50	13.5	\$32.88	\$0.27	\$0.49	\$1.09	\$0.58	\$2.43
Roller/Stubble	32'	MFWD 225	21.7	\$109.43	\$0.57	\$1.39	\$0.68	\$2.39	\$5.03
Rotary Cutter-Flex	15'	MFWD 150	12.8	\$95.56	\$1.75	\$1.56	\$1.15	\$2.99	\$7.45
Rotary Cutter-Flex	20'	MFWD 150	17.2	\$107.29	\$1.69	\$1.17	\$0.86	\$2.50	\$6.22
Row Cond Folding	26'	MFWD 225	16.9	\$124.15	\$0.74	\$1.79	\$0.87	\$3.93	\$7.33
Row Cond Folding	38'	MFWD 225	25.0	\$133.60	\$0.57	\$1.22	\$0.59	\$2.96	\$5.34
Stalk Shredder-Flail	20'	MFWD 150	12.2	\$107.55	\$2.55	\$1.65	\$1.21	\$3.41	\$8.82
Stalk Shredder-Flail	25'	MFWD 150	15.2	\$128.77	\$2.96	\$1.31	\$0.96	\$3.27	\$8.50
Subsoiler	5 shank	MFWD 225	8.2	\$112.56	\$1.47	\$3.67	\$1.79	\$6.80	\$13.73
Subsoiler low-till	6 shank	MFWD 225	9.8	\$118.11	\$1.40	\$3.08	\$1.49	\$6.08	\$12.05
<b>PLANTING EQUIPMENT</b>									
Grain Drill	20'	MFWD 170	10.6	\$126.19	\$1.93	\$2.14	\$2.23	\$5.56	\$11.86
Grain Drill	24'	MFWD 190	12.8	\$164.09	\$2.43	\$1.99	\$1.86	\$6.52	\$12.80
Grain Drill	30'	MFWD 225	16.1	\$180.60	\$2.06	\$1.89	\$1.49	\$5.76	\$11.20
Grain Drill	35'	MFWD 225	18.9	\$206.32	\$2.24	\$1.62	\$1.27	\$5.81	\$10.94
NT Grain Drill	15'	MFWD 150	7.7	\$134.60	\$3.32	\$2.62	\$3.10	\$8.46	\$17.50
NT Grain Drill	20'	MFWD 170	10.2	\$153.95	\$2.97	\$2.23	\$2.33	\$7.56	\$15.09
NT Grain Drill	24'	MFWD 190	12.3	\$198.32	\$3.49	\$2.07	\$1.94	\$8.56	\$16.06
NT Grain Drill	30'	MFWD 225	15.4	\$217.88	\$3.03	\$1.97	\$1.55	\$7.61	\$14.16
NT Plant & Pre-Folding	12R-30	MFWD 190	14.3	\$190.07	\$2.82	\$1.79	\$1.67	\$7.03	\$13.31
NT Plant & Pre-Folding	12R-38	MFWD 190	18.2	\$204.02	\$2.48	\$1.41	\$1.32	\$6.01	\$11.22
NT Plant & Pre-Folding	16R-30	MFWD 190	20.4	\$228.39	\$2.64	\$1.24	\$1.16	\$6.15	\$11.19
NT Plant & Pre-Folding	24R-30	MFWD 190	28.6	\$324.69	\$3.07	\$0.88	\$0.83	\$6.58	\$11.36
Plant & Pre-Twin Row	12R-30/40	MFWD 225	18.9	\$277.51	\$3.58	\$1.60	\$1.26	\$8.27	\$14.71
Plant & Pre-Twin Row	8R-30/40	MFWD 225	12.5	\$243.55	\$4.46	\$2.41	\$1.90	\$10.71	\$19.48
Plant & Pre-Folding	8R-38	MFWD 170	12.5	\$147.11	\$2.23	\$1.82	\$1.90	\$5.82	\$11.77
Plant & Pre-Folding	12R-20	MFWD 190	9.9	\$170.17	\$3.37	\$2.57	\$2.41	\$8.84	\$17.19

**Table 2. Estimated Farm Machinery Costs Per Acre (Cont.)**

Operation	Size*	Horse-Power (PTO)	Performance Rate (ac/hr)	Total Machinery Cost Per Hour (\$/hour)	Operating Cost			Ownership Cost (\$/acre)	Total Specified Cost Per Acre (\$/acre)
					Repairs & Maint. (\$/acre)	Fuel, Oil & Lube (\$/acre)	Labor (\$/acre)		
<b>PLANTING EQUIPMENT (Cont.)</b>									
Plant & Pre-Folding	12R-30	MFWD 190	14.9	\$179.96	\$2.46	\$1.72	\$1.60	\$6.28	\$12.06
Plant & Pre-Folding	12R-38	MFWD 190	18.9	\$191.75	\$2.17	\$1.34	\$1.26	\$5.39	\$10.16
Plant & Pre-Folding	16R-30	MFWD 190	20.0	\$226.90	\$2.66	\$1.28	\$1.20	\$6.21	\$11.35
Plant & Pre-Folding	24R-15	MFWD 225	14.3	\$270.50	\$4.80	\$1.79	\$1.67	\$10.68	\$18.94
Plant & Pre-Folding	24R-20	MFWD 190	20.0	\$295.10	\$3.86	\$1.28	\$1.20	\$8.42	\$14.76
Plant & Pre-Folding	24R-30	MFWD 190	30.3	\$309.09	\$2.70	\$0.85	\$0.80	\$5.85	\$10.20
Plant & Pre-Folding	32R-15	MFWD 225	20.0	\$310.66	\$3.95	\$1.51	\$1.20	\$8.87	\$15.53
<b>SPRAYERS / FERTILIZER APPLICATORS</b>									
Fert Appl (Liquid)	8R-30	MFWD 190	10.2	\$113.29	\$1.80	\$2.48	\$1.88	\$4.94	\$11.10
Fert Appl (Liquid)	8R-38	MFWD 190	13.0	\$117.04	\$1.53	\$1.97	\$1.49	\$4.02	\$9.01
Fert Appl (Liquid)	12R-30	MFWD 225	12.8	\$135.94	\$1.86	\$2.36	\$1.50	\$4.88	\$10.60
Fert Appl (Liquid)	12R-38	MFWD 225	19.6	\$128.96	\$1.03	\$1.55	\$0.99	\$3.01	\$6.58
Spin Spreader	5 ton	MFWD 190	23.8	\$110.57	\$0.52	\$1.05	\$0.99	\$2.08	\$4.64
Spray (Broadcast)	27'	MFWD 170	16.1	\$85.34	\$0.52	\$1.41	\$1.20	\$2.16	\$5.29
Spray (Broadcast)	40'	MFWD 170	23.8	\$86.71	\$0.39	\$0.95	\$0.81	\$1.49	\$3.64
Spray (Broadcast)	50'	MFWD 170	30.3	\$89.24	\$0.32	\$0.77	\$0.65	\$1.21	\$2.95
Spray (Broadcast)	60'	MFWD 170	35.7	\$90.32	\$0.31	\$0.63	\$0.54	\$1.05	\$2.53
Spray (Pull-Type)	90'	MFWD 170	55.6	\$160.06	\$0.59	\$0.56	\$0.36	\$1.37	\$2.88
Spray (Direct Hood)	8R-30	MFWD 170	11.9	\$95.01	\$1.09	\$1.92	\$1.62	\$3.35	\$7.98
Spray (Direct Hood)	8R-38	MFWD 170	15.2	\$96.41	\$0.89	\$1.51	\$1.28	\$2.68	\$6.36
Spray (Direct Hood)	12R-30	MFWD 170	17.9	\$101.88	\$0.91	\$1.28	\$1.08	\$2.44	\$5.71
Spray (Direct Hood)	12R-38	MFWD 170	22.7	\$103.25	\$0.74	\$1.00	\$0.85	\$1.95	\$4.54
Sprayer SP* 600-750gal	60'	175hp	58.8	\$131.65	\$0.20	\$0.41	\$0.33	\$1.30	\$2.24
Sprayer SP* 600-825gal	80'	175hp	76.9	\$138.54	\$0.15	\$0.39	\$0.25	\$1.01	\$1.80
Sprayer SP* 600-825gal	90'	250hp	90.9	\$189.45	\$0.20	\$0.37	\$0.22	\$1.29	\$2.08
Sprayer SP* 800gal	100'	250hp	100.0	\$192.40	\$0.18	\$0.37	\$0.20	\$1.17	\$1.92
Sprayer SP* 800gal	80'	250hp	76.9	\$169.38	\$0.20	\$0.44	\$0.25	\$1.31	\$2.20
Sprayer SP* 1000-1400gal	90'	275hp	100.0	\$191.40	\$0.18	\$0.37	\$0.20	\$1.16	\$1.91
Sprayer SP* 1000gal	100'	300hp	100.0	\$211.80	\$0.20	\$0.41	\$0.20	\$1.31	\$2.12
Sprayer SP* 1200+gal	120'	300hp	125.0	\$232.50	\$0.18	\$0.34	\$0.16	\$1.18	\$1.86
<b>GRAIN, COTTON AND PEANUT HARVESTING</b>									
Cotton Picker **	6R-38"	355hp	5.8	\$422.66	\$12.51	\$8.18	\$4.09	\$47.92	\$72.70
Boll Buggy	6R-38"	190hp	5.8	\$105.63	\$2.35	\$4.37	\$2.52	\$8.93	\$18.17
Module Builder	6R-38"	190hp	5.8	\$117.84	\$2.53	\$4.37	\$4.09	\$9.28	\$20.27
Cotton Picker OBMB	6R-38"	560hp	9.65	\$880.67	\$32.60***	\$5.93	\$3.04	\$50.02	\$91.51
Combine - Corn	6R-30	265 hp	5.9	\$278.50	\$9.11	\$6.04	\$2.49	\$29.71	\$47.35
Combine - Corn	6R-38	265 hp	7.5	\$279.48	\$7.22	\$4.76	\$1.97	\$23.50	\$37.45
Combine - Corn	8R-30	265 hp	7.9	\$289.15	\$7.33	\$4.52	\$1.87	\$23.00	\$36.72
Combine - Corn	8R-38	325 hp	10.0	\$301.06	\$5.86	\$4.39	\$1.48	\$18.38	\$30.11
Combine - Corn	12R-30	325 hp	11.8	\$325.64	\$5.88	\$3.69	\$1.24	\$16.87	\$27.68

**Table 2. Estimated Farm Machinery Costs Per Acre (Cont.)**

Operation	Size*	Horse-Power (PTO)	Performance Rate (ac/hr)	Total Machinery Cost Per Hour (\$/hour)	Operating Cost			Ownership Cost (\$/acre)	Total Specified Cost Per Acre (\$/acre)
					Repairs & Maint. (\$/acre)	Fuel, Oil & Lube (\$/acre)	Labor (\$/acre)		
<b>GRAIN, COTTON AND PEANUT HARVESTING (Cont.)</b>									
Rice - Draper (CL)	25' Rigid	265 hp	4.9	\$282.02	\$11.12	\$7.19	\$2.98	\$35.96	\$57.25
Rice - Draper (CL)	30' Rigid	325 hp	5.9	\$299.41	\$9.81	\$7.36	\$2.48	\$30.95	\$50.60
Rice - Draper (CL)	36' Rigid	355 hp	7.1	\$308.21	\$8.38	\$6.70	\$2.07	\$26.31	\$43.46
Rice - Draper (CL)	40' Rigid	425 hp	7.9	\$340.54	\$8.16	\$7.21	\$1.86	\$25.68	\$42.91
Rice - Draper (SL)	25' Rigid	265 hp	5.7	\$291.99	\$9.71	\$7.65	\$2.58	\$31.45	\$51.39
Rice - Draper (SL)	30' Rigid	325 hp	6.8	\$300.38	\$8.50	\$6.38	\$2.15	\$26.83	\$43.86
Rice - Draper (SL)	36' Rigid	355 hp	8.2	\$308.58	\$7.26	\$5.80	\$1.79	\$22.80	\$37.65
Rice - Draper (SL)	40' Rigid	425 hp	9.1	\$338.15	\$7.07	\$6.26	\$1.61	\$22.26	\$37.20
Rice – Stripper (CL)	20'	265 hp	4.0	\$278.59	\$13.54	\$8.99	\$3.72	\$44.23	\$70.48
Rice – Stripper (CL)	24'	325 hp	4.7	\$290.51	\$11.55	\$9.20	\$3.10	\$37.45	\$61.30
Rice – Stripper (CL)	32'	325 hp	6.3	\$295.14	\$8.93	\$6.90	\$2.32	\$28.48	\$46.63
Rice – Stripper (SL)	20'	265 hp	4.5	\$277.74	\$11.74	\$7.80	\$3.22	\$38.34	\$61.10
Rice – Stripper (SL)	24'	325 hp	5.5	\$290.34	\$10.01	\$7.97	\$2.69	\$32.46	\$53.13
Rice – Stripper (SL)	32'	325 hp	7.3	\$294.87	\$7.74	\$5.97	\$2.01	\$24.68	\$40.40
Combine - Soybean	25' Flex	325 hp	9.8	\$279.19	\$5.12	\$4.44	\$1.49	\$17.43	\$28.48
Combine - Soybean	30' Flex	325 hp	11.8	\$283.75	\$4.43	\$3.69	\$1.24	\$14.76	\$24.12
Combine - Soybean	35' Flex	355 hp	13.9	\$298.17	\$3.95	\$3.47	\$1.07	\$12.98	\$21.47
Combine - Wheat / Sorghum	22' Rigid	265 hp	8.6	\$258.91	\$5.29	\$4.11	\$1.70	\$18.93	\$30.03
Combine - Wheat / Sorghum	25' Rigid	325 hp	9.8	\$272.52	\$4.84	\$4.44	\$1.49	\$17.03	\$27.80
Combine - Wheat / Sorghum	30' Rigid	325 hp	11.8	\$274.58	\$4.11	\$3.69	\$1.24	\$14.30	\$23.34
Grain Cart Corn	700 bu	MFWD 190	40.0	\$102.76	\$0.33	\$0.63	\$0.37	\$1.24	\$2.57
Grain Cart Corn	1000 bu	MFWD 225	40.0	\$115.16	\$0.45	\$0.63	\$0.37	\$1.43	\$2.88
Grain Cart Rice	500 bu	MFWD 190	40.0	\$138.72	\$0.57	\$0.75	\$0.37	\$1.78	\$3.47
Grain Cart Rice	700 bu	MFWD 190	16.1	\$103.08	\$0.83	\$1.58	\$0.91	\$3.07	\$6.39
Grain Cart Rice	1000 bu	MFWD 190	18.2	\$114.44	\$0.98	\$1.39	\$0.80	\$3.12	\$6.29
Grain Cart Soybean/Wheat/Sorghum	500 bu	MFWD 190	22.2	\$126.36	\$0.98	\$1.16	\$0.67	\$2.88	\$5.69
Grain Cart Soybean/Wheat/Sorghum	700 bu	MFWD 190	40.0	\$103.84	\$0.33	\$0.65	\$0.37	\$1.25	\$2.60
Grain Cart Soybean/Wheat/Sorghum	1000 bu	MFWD 190	47.6	\$114.62	\$0.37	\$0.53	\$0.31	\$1.20	\$2.41
Peanut Cond.& Lifter	6-Row	MFWD 190	10.0	\$88.63	\$0.84	\$2.53	\$1.46	\$4.03	\$8.86
Peanut Conditioner	6-Row	MFWD 190	10.0	\$89.83	\$0.95	\$2.53	\$1.46	\$4.04	\$8.98
Peanut Dig/Invertor	6R-38	MFWD 190	8.1	\$105.12	\$1.79	\$3.15	\$1.82	\$6.28	\$13.04
Peanut Dump Cart	6-Row	MFWD 190	3.2	\$98.78	\$2.87	\$7.87	\$4.55	\$15.33	\$30.62
Peanut Harvester	6R-38	MFWD 225	1.6	\$141.50	\$9.74	\$18.82	\$9.17	\$50.71	\$88.44
Peanut Lifter	6-Row	MFWD 225	10.0	\$99.19	\$0.87	\$3.01	\$1.46	\$4.58	\$9.92

**Notes:**

'= feet, "= inches, R = rows, OBMB = On-Board Module Builder.

\*\* Performance rate or cotton harvesting based upon use of module builder and boll buggy.

\*\*\* OBMB Repairs & Maintenance includes estimated module wrap cost based on \$750/roll, Assumes 1 roll = 96 bales.

CL = Contour Levees

SL = Straight Levees

SP = Self-Propelled

## Literature Cited:

1. 2020 Agricultural Engineers Yearbook of Standards. American Society of Agricultural Engineers, St. Joseph, Michigan.
2. "Corn, Grain Sorghum & Wheat 2021 Planning Budgets." Budget Report No. 2020-03, Department of Agricultural Economics, Mississippi State University, October 2020.
3. "Cotton 2021 Planning Budgets." Budget Report No. 2020-01, Department of Agricultural Economics, Mississippi State University, October 2020.
4. "Rice 2021 Planning Budgets." Budget Report No. 2020-04, Department of Agricultural Economics, Mississippi State University, October 2020.
5. "Soybeans 2021 Planning Budgets." Budget Report No. 2020-02, Department of Agricultural Economics, Mississippi State University, October 2020.

INFORMATION PRESENTED IN THIS DOCUMENT IS PREPARED AS A GENERAL GUIDE AND IS NOT INTENDED TO RECOGNIZE OR PREDICT THE COSTS FROM ANY ONE PARTICULAR FARM OPERATION.

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