



Current Report

Oklahoma Cooperative Extension Fact Sheets are also available on our website at: osufacts.okstate.edu

Oklahoma Farm and Ranch Custom Rates, 2015-2016

Damona Doye
Regents Professor and Extension Economist

Roger Sahs
Extension Assistant Specialist

This Current Report summarizes data collected from Oklahoma farmers, ranchers and custom operators during the summer and fall of 2015. Custom work is defined as machine operations performed for the customer with the custom operator furnishing the machine, fuel, labor and other inputs directly associated with the machine. Custom operators do not usually furnish materials such as seed or fertilizer unless it is explicitly stated. The change in custom rates was mixed since the 2013 survey. While lower fuel prices may have helped stabilize custom rates, higher repair and ownership costs more than offset the cost savings in many situations. Approximately 610 surveys were returned with usable data.

Summary Procedure

The rates quoted herein were collected by a survey of both farmers and custom operators. A list of over 150 operations was provided from which each respondent quoted rates for only selected operations. Some respondents quoted rates for only one or two operations while others were familiar with rates for many of the machines listed. "Fair" rates are negotiated. Regional or state average rates may be used as a beginning point for discussion. However, differences in operations, requirements, and circumstances may impact rates.

The rates summarized on the inside pages were edited to remove those replies for which the respondent's interpretation of the information being requested did not match the interpretation of other respondents.

Interpreting the Rate Tables

A statewide rate summary for each operation is quoted in the included table. If available, separate quotes are listed for each area of the state as shown in Figure 1. The number of estimates obtained, the average rate, and the lowest and highest rates reported are shown. The average rate for a specific operation provides an estimate of the prevailing charge with its reliability improving as the number of responses increase. The cost of following up with individual surveys prohibited questioning or affirming doubtful replies. In most cases the number of observations was insufficient to allow statistical analysis. You

West Central East

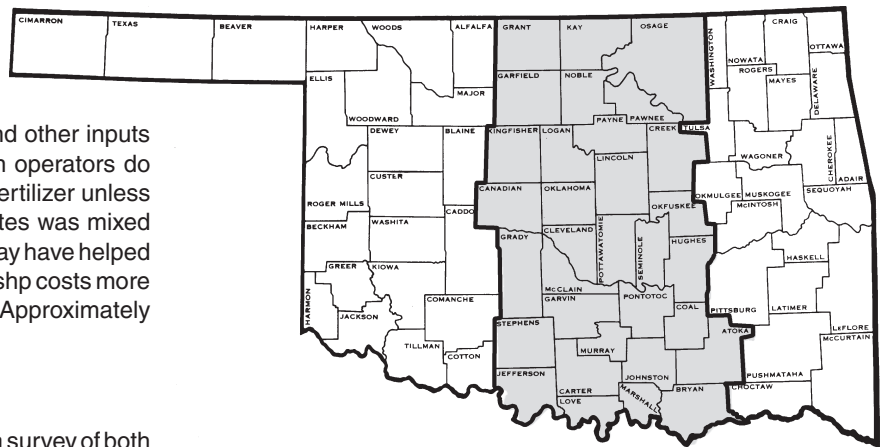


Figure 1. Regions used in reporting Custom Rate Survey results.

must interpret these results, therefore, with these limitations in mind.

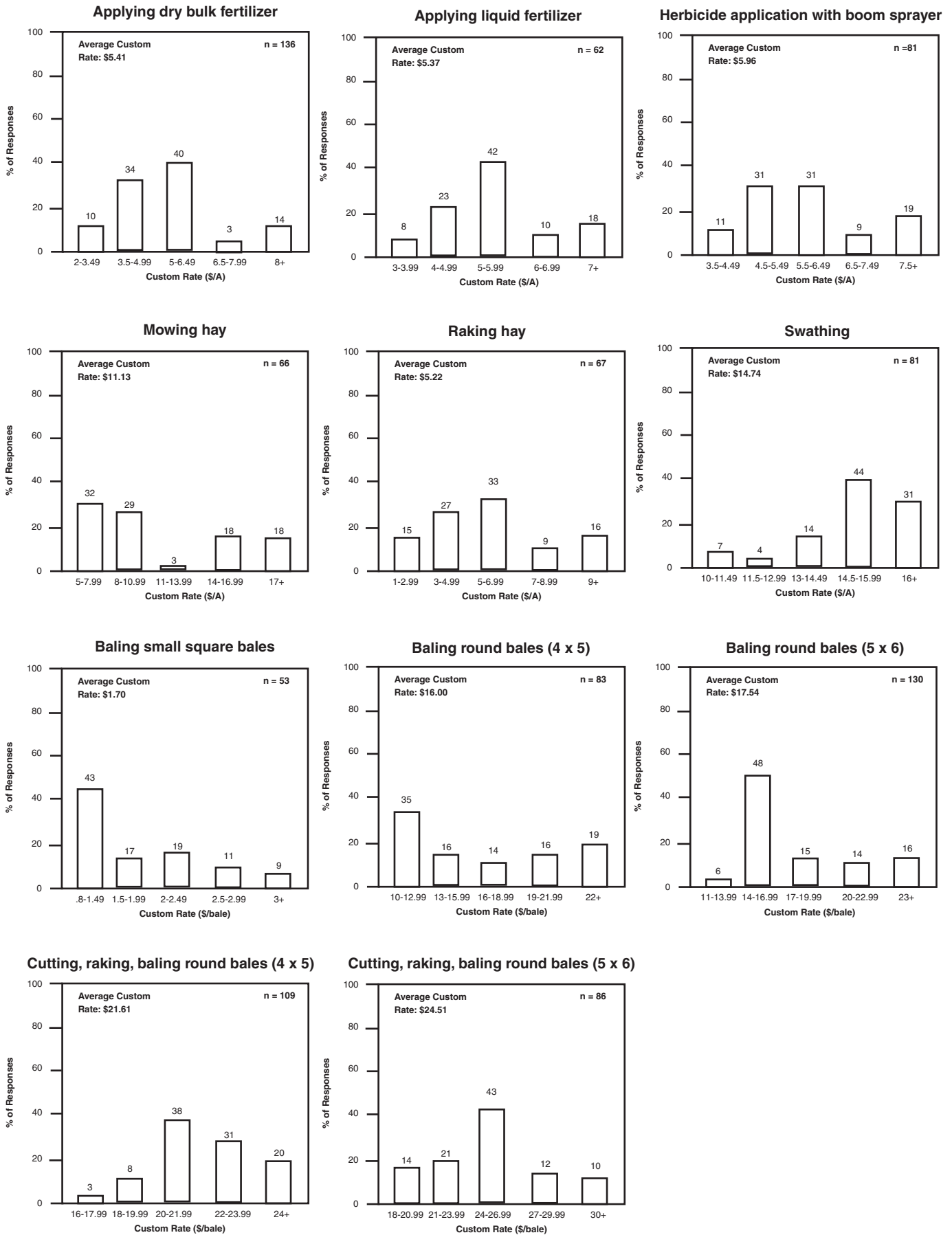
Figure 2 shows the distribution of survey responses for operations with at least 50 observations. For example, a distribution of 320 responses for raking hay is one of several graphs shown. None of the respondents reported a rental rate less than \$10 per acre, 15% reported a rental rate between \$1.00 and \$3.00 per acre, 27% reported a rental rate between \$3.00 and \$5.00 per acre, 33% reported a rental rate between \$5.00 and \$7.00 per acre, 9% reported a rental rate between \$7.00 and \$9.00 per acre, and 16% of the respondents reported a rental rate of \$9 or more per acre.

If you are interested in a rate quotation for a specific operation in an area which shows a small number of reports, consider rates for other areas of the state where the operation is more common or refer to the statewide summary. Additional adjustments for field size, terrain and soil type may be necessary.

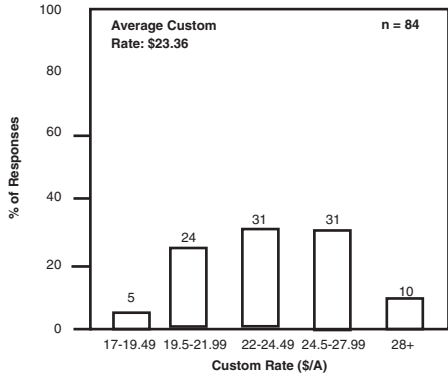
OPERATION	OKLAHOMA*				WEST				CENTRAL				EAST				
	No.	Avg.	Low	High	No.	Avg.	Low	High	No.	Avg.	Low	High	No.	Avg.	Low	High	
TILLAGE																	
Moldboard plowing	\$/acre	14	17.36	10.00	30.00					9	19.00	10.00	30.00				
Chisel plowing	\$/acre	27	13.50	8.00	25.00	12	13.79	8.50	22.00	8	15.88	8.00	25.00				
Surface chisel	\$/acre	9	9.78	6.00	12.00												
Discing - Offset	\$/acre	33	13.55	9.00	24.00	12	12.13	9.00	15.00	10	12.40	10.00	18.00				
Discing - Tandem	\$/acre	31	13.37	8.00	20.00	11	11.50	8.00	15.00	11	15.09	10.00	20.00	4	13.75	10.00	20.00
Blade or wide sweeps	\$/acre	17	11.06	5.00	15.00	8	11.31	7.50	15.00	4	12.75	10.00	15.00				
Strip tillage	\$/acre	5	13.11	6.80	21.00												
Vertical/Turbo Tillage	\$/acre	7	14.43	12.00	16.00												
Spike tooth harrow	\$/acre	17	7.21	3.00	12.00	5	6.80	4.00	12.00	8	6.88	3.00	10.00				
Spring tooth harrow	\$/acre	9	8.11	3.00	13.50												
Row cultivating	\$/acre	6	8.52	3.60	15.00												
Field cultivating	\$/acre	11	9.77	6.00	14.00	6	10.58	7.00	14.00								
Subsoiling	\$/acre	10	16.90	15.00	20.00	6	16.67	15.00	18.00								
FERTILIZER AND CHEMICAL APPLICATION																	
Applying bulk dry fertilizer	\$/acre	136	5.41	2.00	17.80	31	5.09	3.00	12.00	38	5.69	2.00	17.80	26	5.63	3.00	15.00
Renting bulk dry applicator	\$/acre	17	3.82	0.50	11.50												
Applying liquid fertilizer	\$/acre	62	5.37	2.25	11.50	31	5.20	3.00	8.00	16	5.41	2.25	10.00				
Applying anhydrous	\$/acre	8	13.75	10.50	17.00												
Lime application	\$/acre	15	6.23	4.00	9.00	4	5.75	4.00	9.00					5	6.80	5.00	9.00
Lime application	\$/ton	11	9.95	7.00	20.00												
Ground appl., insect, fung.	\$/acre	34	5.49	4.00	8.00	9	5.28	4.50	6.00	12	5.19	4.00	6.00	4	5.85	4.00	7.50
Aircraft appl., insect, fung.	\$/acre	16	6.15	4.00	10.50	8	5.86	4.00	10.50								
Ground app - herbicides - boom	\$/acre	81	5.96	3.50	10.00	25	5.43	4.00	10.00	21	5.92	3.50	10.00	19	6.39	5.00	9.50
Ground app - herbicides - pipe wick	\$/acre	6	8.42	4.50	12.00												
Aircraft appl, herbicides	\$/acre	30	8.06	4.00	14.50	11	8.36	4.00	14.50	10	8.43	5.00	13.00	4	8.25	7.00	10.00
Ground appl, growth regulators & defoliants	\$/acre	12	5.50	4.50	8.00	6	5.25	4.50	6.00	4	5.38	4.50	6.00				
Aircraft appl, growth regulators & defoliants	\$/acre	7	7.00	5.00	11.00	5	6.00	5.00	7.00								
PLANTING																	
Air seeder w/fertilizer	\$/acre	16	16.14	12.00	20.00	5	14.84	13.20	17.00	9	16.78	12.00	20.00				
Air seeder w/o fertilizer	\$/acre	15	15.80	12.00	21.00	4	15.13	12.50	19.00	7	15.21	12.00	19.00				
Drill small grains, conventional	\$/acre	43	11.27	6.00	16.66	13	11.88	6.00	16.00	15	10.73	6.00	16.00	4	9.75	6.00	15.00
Drill small grains, no-till	\$/acre	41	13.80	10.00	18.00	14	13.50	10.00	18.00	16	14.63	10.00	18.00				
Sod drill sm grains into bermuda	\$/acre	12	12.71	9.00	15.00									5	12.20	9.00	15.00
Drill alfalfa and other legumes	\$/acre	12	12.79	6.50	20.00					6	13.83	8.00	20.00				
Broadcasting seed	\$/acre	16	6.90	4.50	10.20									6	6.54	4.75	10.00
Drill canola	\$/acre	5	16.44	10.20	20.00												
Plant cotton, conventional	\$/acre	5	13.00	10.00	15.00												
Plant cotton, no-till	\$/acre	6	13.17	10.00	17.00												
Plant corn, conventional	\$/acre	7	15.18	11.25	18.00												
Plant corn, no-till	\$/acre	15	16.47	14.00	20.00					10	17.10	14.00	20.00				
Plant milo, conventional	\$/acre	6	16.33	14.00	18.00					5	16.80	15.00	18.00				
Plant milo, no-till	\$/acre	22	17.27	14.00	20.00	10	17.60	14.00	20.00	11	17.09	14.00	20.00				
Plant soybeans, conventional	\$/acre	10	16.40	9.00	20.00					7	16.43	9.00	20.00				
Plant soybeans, no-till	\$/acre	21	16.62	12.00	20.00	4	17.75	14.00	20.00	14	16.71	12.00	20.00				
Sprigging bermuda grass	\$/acre	10	41.60	12.00	100.00					5	44.00	20.00	80.00				
HAYING																	
Mowing hay	\$/acre	66	11.13	5.00	20.00	10	14.80	7.00	20.00	19	11.16	5.00	20.00	17	10.53	5.00	20.00
Raking hay	\$/acre	67	5.22	1.00	12.00	7	4.71	2.00	8.00	23	4.67	1.00	10.00	15	6.34	1.10	12.00
Swathing	\$/acre	81	14.94	10.00	18.00	41	15.34	12.00	18.00	19	14.11	10.00	18.00				
Small square bales																	
Baling a small square bale	\$/acre	53	1.70	0.80	4.00	9	1.03	0.80	1.50	18	1.64	0.80	3.00	17	1.96	1.00	4.00
Flat rate for hauling small square bale	\$/bale	30	1.16	0.50	2.00	5	1.30	1.00	2.00	9	1.08	0.75	2.00	7	1.00	0.50	2.00
Base rate for hauling small square bale	\$/bale	8	1.33	0.75	2.00												
extra charge per bale	\$/bale	8	0.27	0.02	0.50												
for a distance over XX miles	miles	8	10.63	5.00	20.00												
Large square bales																	
Baling a large square bale	\$/bale	30	15.75	8.00	25.00					11	16.36	10.00	25.00				
Base rate for hauling large square bale	\$/bale	5	5.30	3.00	7.00												
extra charge per bale	\$/bale	5	1.64	0.20	4.00												
for a distance over XX miles	miles	5	20.20	5.00	50.00												
Large round bales																	
Baling a round bale (4 x 5)	\$/acre	83	16.00	10.00	24.00	6	15.50	15.00	17.00	31	14.73	10.00	24.00	24	16.87	10.00	22.00
Baling a round bale (5 x 6)	\$/acre	130	17.54	11.00	26.50	41	15.51	14.00	18.00	25	19.02	13.00	26.50	27	19.37	11.00	25.00
Cutting, raking, baling round bales (4 x 5)	\$/bale	109	21.61	16.00	27.00					40	21.96	16.00	27.00	40	20.91	16.00	26.00
Cutting, raking, baling round bales (5 x 6)	\$/bale	86	24.51	18.00	32.00	8	24.80	18.00	30.00	28	25.56	20.00	32.00	24	22.25	19.00	25.00
Base rate for hauling a round bale (4 x 5)	\$/bale	19	5.05	3.00	7.00					6	4.75	3.00	7.00	7	5.14	5.00	6.00
extra charge per bale	\$/bale	19	1.01	0.15	2.50					6	0.78	0.15	1.00	7	1.21	0.50	2.50
for a distance over XX miles	miles	19	16.42	2.00	50.00					6	10.00	2.00	20.00	7	21.00	2.00	50.00
Base rate for hauling a round bale (5 x 6)	\$/bale	12	5.38	3.00	7.50					4	5.25	3.00	7.00	5	5.00	5.00	5.00
extra charge per bale	\$/bale	12	1.27	0.25	2.50					4	0.88	0.50	1.00	5	1.60	0.50	2.50
for a distance over XX miles	miles	12	15.54	1.50	50.00					4	9.13	1.50	20.00	5	17.00	2.00	50.00
Flat rate for hauling round bales (4 x 5)	\$/bale	43	4.60	1.00	10.00					11	4.23	1.00	7.50	15	4.00	1.50	10.00
Flat rate for hauling round bales (5 x 6)	\$/bale	44	5.10	2.00	10.00	4	5.25	5.00	6.00	9	5.83	2.00	10.00	12	4.54	2.00	7.00

OPERATION	OKLAHOMA*				WEST				CENTRAL				EAST				
	No.	Avg.	Low	High	No.	Avg.	Low	High	No.	Avg.	Low	High	No.	Avg.	Low	High	
SMALL GRAIN AND SOYBEAN HARVEST																	
Combining wheat & small grains (flat rate)	\$/acre	84	23.36	17.00	30.00	40	22.85	18.00	30.00	20	23.50	17.00	30.00	7	22.57	18.00	30.00
Swathing small grains	\$/acre	12	15.58	10.00	21.00	7	16.86	12.00	21.00	4	14.75	14.00	15.00				
Base rate for combining small grains	\$/acre	51	23.24	20.00	27.00	24	23.50	20.00	27.00	14	22.86	20.00	27.00				
extra charge per bushel	\$/bu.	51	0.23	0.20	0.27	24	0.23	0.20	0.27	14	0.23	0.20	0.27				
for excess over XX bushels/acre	bu.	51	21.12	20.00	30.00	24	21.25	20.00	30.00	14	21.21	20.00	30.00				
Combining soybeans	\$/acre	20	27.25	21.00	35.00					10	28.00	25.00	32.00	5	24.00	21.00	30.00
Base rate for combining soybeans	\$/acre	8	28.50	25.00	35.00					5	27.20	25.00	30.00				
extra charge per bushel	\$/bu.	8	0.24	0.20	0.30					5	0.24	0.20	0.30				
for excess over XX bushels/acre	bu.	8	26.25	20.00	45.00					5	27.00	20.00	45.00				
Flat rate for hauling small grains, soybeans	\$/bu.	52	0.24	0.18	0.30	24	0.23	0.20	0.27	9	0.25	0.22	0.30	6	0.26	0.20	0.30
Base rate for hauling small grains, soybeans	\$/bu.	10	0.22	0.20	0.25	6	0.22	0.20	0.25								
extra charge per bushel	\$/bu.	10	0.20	0.10	0.24	6	0.19	0.10	0.24								
for excess over XX miles	miles	10	11.50	5.00	20.00	6	7.50	5.00	10.00								
CORN, GRAIN SORGHUM HARVEST																	
Combining corn	\$/acre	12	25.58	20.00	35.00					6	25.17	22.00	30.00				
Combining grain sorghum	\$/acre	16	25.13	20.00	32.00					4	27.00	22.00	32.00				
Base rate for combining grain sorghum	\$/acre	9	23.22	20.00	27.00	7	22.86	20.00	27.00								
extra charge per bushel	\$/bu.	9	0.23	0.20	0.27	7	0.23	0.20	0.27								
for excess over XX bushels/acre	bu.	9	32.22	20.00	50.00	7	30.00	20.00	50.00								
Flat rate for hauling milo	\$/bu.	10	0.22	0.10	0.25	5	0.20	0.10	0.25								
Base rate for hauling grain sorghum	\$/bu.	5	0.30	0.22	0.40												
extra charge per bushel	\$/bu.	5	0.13	0.01	0.24												
for excess over XX miles	miles	5	17.00	5.00	50.00												
CANOLA HARVEST																	
Combining canola	\$/acre	6	29.83	25.00	36.00					5	28.60	25.00	32.00				
Swathing canola	\$/acre	7	16.14	15.00	18.00					5	15.80	15.00	17.00				
Base rate for combining canola	\$/acre	5	27.40	21.00	38.00												
extra charge per cwt	\$/cwt.	5	0.27	0.21	0.38												
for excess over XX cwt/acre	cwt.	5	14.90	2.00	20.00												
LIVESTOCK OPERATIONS																	
Spraying	\$/head	50	2.92	0.50	10.00	4	2.00	1.00	4.00	11	2.91	1.00	10.00	14	3.25	1.00	10.00
Dehorning	\$/head	39	3.41	1.00	8.00	6	2.75	1.00	5.00	9	3.83	1.00	8.00	6	2.42	1.00	5.00
Branding	\$/head	43	2.68	1.00	5.00	7	3.00	1.00	5.00	9	2.94	1.00	5.00	7	2.64	1.00	5.00
Castrating	\$/head	55	3.93	1.00	10.00	9	3.56	1.00	7.00	14	4.51	1.00	10.00	12	4.16	1.00	10.00
Worming	\$/head	67	3.97	1.00	12.00	5	4.60	1.00	12.00	14	3.76	1.00	10.00	23	4.88	1.00	10.00
Artificial insemination	\$/head	26	21.58	5.00	50.00					5	33.00	10.00	50.00	9	15.11	5.00	35.00
MISCELLANEOUS																	
Combining alfalfa seed	\$/acre	5	26.80	22.00	32.00												
Welding	\$/hour	49	41.39	20.00	65.00	4	43.50	24.00	50.00	14	47.14	20.00	65.00	14	39.21	24.00	60.00
Building new fence w/materials 5-wire,steel posts)	\$/mile	33	3119	700	7500	5	3480	700	7500	5	2276	900	3200	8	2990	700	6000
Building new fence w/o materials (5-wire,steel posts)	\$/mile	39	2724	700	5783	8	3004	1500	5280	11	3705	1050	5783	11	2523	700	5000
Removing fence (5-wire and posts)	\$/mile	20	1501	160	5600									5	857	300	2000
Digging line fence post holes	\$/hour	19	21.89	10.00	55.00					6	12.83	10.00	20.00	4	25.50	12.00	50.00
Brush hogging	\$/hour	53	39.92	10.00	75.00					19	45.95	10.00	75.00	20	36.60	15.00	60.00
Dozing (D6 or smaller)	\$/hour	60	93.43	60.00	130.00					23	95.65	60.00	125.00	16	86.56	60.00	125.00
Dozing (D7 or larger)	\$/hour	32	129.69	95.00	165.00	8	134.38	100.00	150.00	9	128.89	110.00	150.00	6	125.00	100.00	150.00
Clearing cedar trees	\$/hour	24	67.92	25.00	125.00	6	75.00	50.00	125.00	7	59.29	25.00	75.00				
Sawing wood, chainsaw	\$/hour	22	22.66	10.00	50.00					9	23.83	10.00	50.00	5	15.40	12.00	20.00
Hauling cattle flat truck, capacity	lbs	11	28273	9000	50000												
Per mile (one-way load)	\$/mile	11	2.83	1.00	4.50												
Hauling cattle belly semi truck, capacity	lbs	28	49214	35000	60000	4	45750	35000	50000	5	49600	48000	50000	12	51083	40000	60000
Per mile (one-way load)	\$/mile	28	3.96	3.00	5.00	4	4.00	3.50	5.00	5	4.07	3.60	5.00	12	3.89	3.00	4.00
Gooseneck trailer, length	feet	33	25.55	14.00	40.00	5	23.00	20.00	31.00	6	25.33	14.00	34.00	10	27.50	20.00	40.00
capacity	lbs	33	15115	1000	32000	5	15520	9600	30000	6	14050	4300	24000	10	16700	10000	32000
rate per mile	\$/mile	33	2.77	1.00	6.00	5	3.00	2.00	6.00	6	2.13	1.00	4.50	10	3.05	1.00	6.00
TRACTOR RENTAL																	
Tractor rental less than 100 hp	\$/hour	7	37.29	25.00	50.00												
Tractor rental (100 -150 HP)	\$/hour	12	51.50	25.00	100.00					5	54.00	25.00	85.00	4	60.00	25.00	100.00
Tractor rental (over 150 HP)	\$/hour	7	61.71	30.00	100.00												
Tractor rental (4 wheel drive < 175 HP)	\$/hour	6	72.17	30.00	200.00												
Tractor rental (4 wheel drive > 175 HP)	\$/hour	6	64.50	32.00	125.00												
MACHINERY RENTAL																	
Grain drill	\$/acre	8	5.19	3.00	8.00												
No-till drill	\$/acre	21	10.07	5.00	18.00	5	11.20	5.00	18.00	5	9.80	5.00	15.00	8	8.94	6.00	15.00
Skid loader	\$/hour	11	50.45	25.00	75.00									7	45.71	25.00	65.00

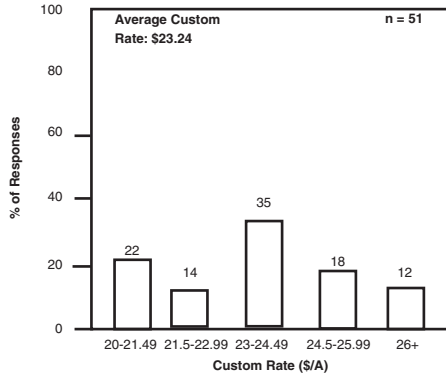
Figure 2. Relative frequency of responses for selected operations, 2015-2016.



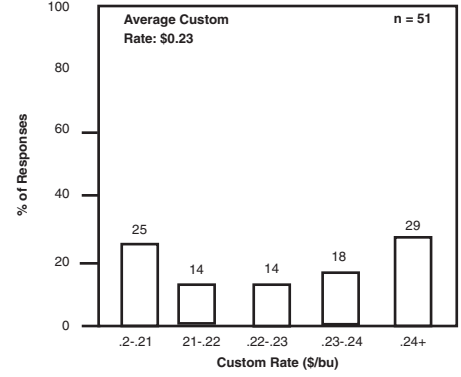
Flat rate harvest small grains



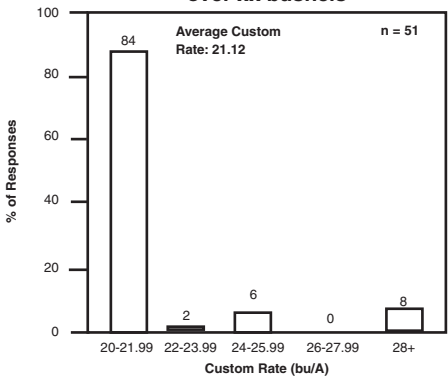
Base rate harvest small grains



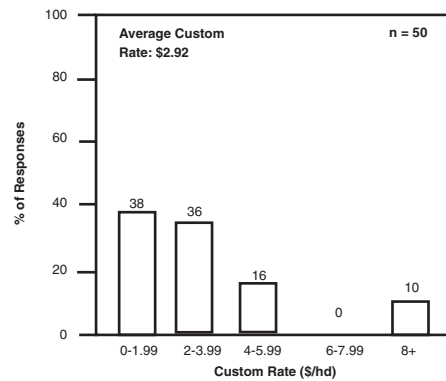
Combining small grains additional charge



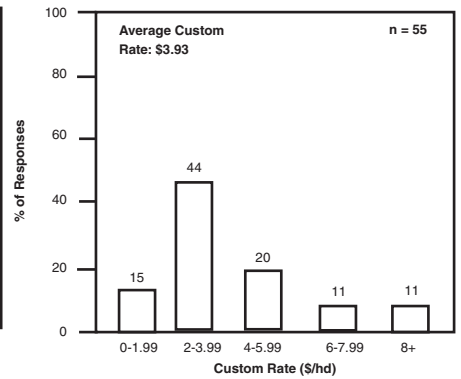
Combining small grains for excess over xx bushels



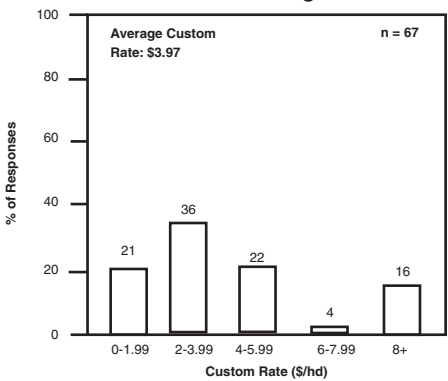
Livestock Spraying



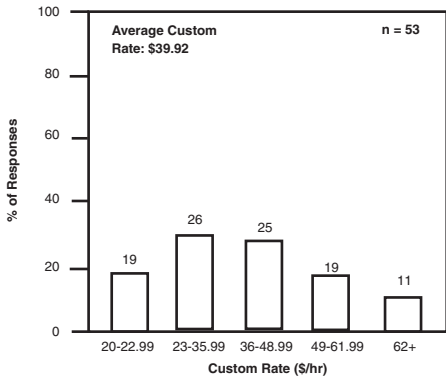
Castrating



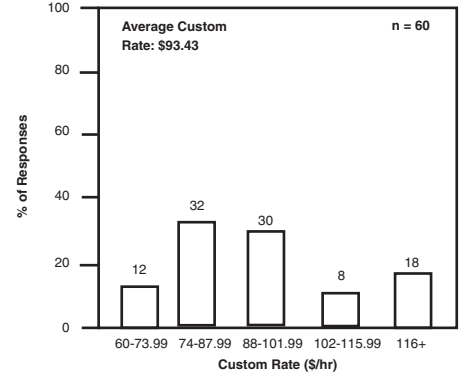
Worming



Brushhogging



Dozer (D6 or smaller)



Reporting Regions

Area rates are summarized for the State of Oklahoma as shown in Figure 1 (page 1). Regional differences are apparent in the rate table with higher rates prevailing when:

- Fields are small.
- Soils are heavy.
- Slopes are steep.
- Machines are scarce.
- Custom operators are not available.

Rates tend to be lower than expected when exchange work is common between relatives and neighbors. Under these circumstances, fixed costs of ownership such as depreciation and interest on investment (sometimes even labor) tend to be discounted when a rate is established for a particular job.

Custom Service vs. Ownership

Individual circumstances—cash flow, ownership and operating costs, labor availability, reliability and timeliness of custom operators, pride of ownership—will influence an individual's decision on whether to buy or lease machinery and equipment or custom hire work done. A worksheet at the end of this article is designed to help evaluate the cost of machinery ownership and operation.

Possible Advantages of Using Custom Operations

- Ownership costs are avoided.
- Capital and labor can be channeled to other uses.
- Machine use can be readily adjusted to changes in crop mix and market conditions.

- Specialized operations may benefit from experience and skilled operator.
- Jobs may be completed faster using several machines.

Possible Disadvantages of Using Custom Operations

- Service may not be available at the best time.
- Reliability of the custom operator may not be known.
- Rates may be excessive in special situations.

Each manager must choose the best combination of owned and hired machines. The quotations here will be helpful in estimating custom costs and to provide a base figure for agreement on a rate when well established local rates are not available. If you have questions, ask your Extension Educator- Agriculture or Area Agricultural Economics Specialist for additional information.

Considerations to Keep in Mind

Keep in mind there is a wide variation in rates charged for most jobs, even within the same geographic area, partly because some custom work is done for friends, relatives, and neighbors at reduced rates, partly because *some* custom work is done late by farmers who do their own work first and therefore do not attempt to include the full cost of machine ownership in their rates, and partly because it is easy to under-estimate the full cost of ownership and operation of machinery.

A small number of reports for a given machine in a particular area may not be representative. In this case, it is particularly important to check rates in other areas or statewide where a larger number of reports are found.

Costs of Ownership and Operation

The management decision to own a machine, to custom hire operations performed, or to custom perform operations is partially determined by cost, which is heavily influenced by the amount of use realized over the period of machine ownership. Estimates of fixed and variable costs per hour can be approximated using the following steps. Unless accurate records are used to estimate costs, variability in machine and operator efficiencies can cause actual results to be significantly different from estimated results.

A. Acres per hour = Acres covered in normal day ÷ hours in normal day = _____ acres ÷ _____ hours = _____

B. Average investment = (Original cost + Trade-in value) ÷ 2 = (\$ _____ + \$ _____) ÷ 2 = \$ _____

C. Depreciation = $\frac{\text{Annual Original cost} - \text{Trade-in value}}{\text{Number of years owned}}$ = (\$ _____ - \$ _____) ÷ _____ years = \$ _____

D. Interest = Average Investment x Interest rate = \$ _____ x _____ % = \$ _____

E. Taxes = Average Investment x Tax rate (1) = \$ _____ x _____ % = \$ _____

F. Insurance = Average Investment x rate (2) = \$ _____ x _____ % = \$ _____

G. Total Annual Ownership Costs (Sum of C through F) = \$ _____

H. Costs per acre = $\frac{\text{Ownership Annual Costs}}{\text{Per Year Acres}}$ = \$ _____ ÷ _____ acres/year = \$ _____

I. Per acre = $\frac{\text{Repairs (3) Acres}}{\text{Per Year}}$ = \$ _____ ÷ _____ acres/year = \$ _____

J. Per acre = $\frac{\text{Fuel Cost Fuel Gallons}}{\text{Price Per Hour Acres}} \div \frac{\text{Per Hour}}{\text{Per Hour}}$ = (\$ _____/gal. x _____ gal./hour) ÷ _____ acres/hour = \$ _____

K. Per acre = $\frac{\text{Labor costs Daily}}{\text{Wage Acres}} \div \frac{\text{Per day}}{\text{Per day}}$ = \$ _____/day ÷ _____ acres/day = \$ _____

L. Total Cost Per Acre = Sum of items H through K above = \$ _____

- (1) Use local tax rate if known. One to two percent is a reasonable "guesstimate".
- (2) Use own insurance rate if known. One-half to one percent is a reasonable "guesstimate".
- (3) Use your repair expense data, if available. One percent of original price for each year machine is kept is a rough estimate; e.g., 10% per year if machine is to be used for 10 years.

The Oklahoma Cooperative Extension Service

Bringing the University to You!

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

The authors gratefully acknowledge Derrel Kletke, Professor Emeritus, for his past contribution to this publication.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, and Title IX of the Education Amendments of 1972 (Higher Education Act), the Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, genetic information, sex, age, sexual orientation, gender identity, religion, disability, or status as a veteran, in any of its policies, practices or procedures. This provision includes, but is not limited to admissions, employment, financial aid, and educational services. The Director of Equal Opportunity, 408 Whitehurst, OSU, Stillwater, OK 74078-1035; Phone 405-744-5371; email: eeo@okstate.edu has been designated to handle inquiries regarding non-discrimination policies; Director of Equal Opportunity. Any person (student, faculty, or staff) who believes that discriminatory practices have been engaged in based on gender may discuss his or her concerns and file informal or formal complaints of possible violations of Title IX with OSU's Title IX Coordinator 405-744-9154.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 42 cents per copy. Revised 0316 GH.