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Updating Custom Rates for 2008

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CORNHUSKER ECONOMICS

January 23, 2008

University of Nebraska–Lincoln Extension

Institute of Agriculture & Natural Resources
Department of Agricultural Economics
<http://www.agecon.unl.edu/Cornhuskereconomics.html>

Updating Custom Rates for 2008

Market Report	Yr Ago	4 Wks Ago	1/18/08
<u>Livestock and Products,</u>			
<u>Weekly Average</u>			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.....	\$86.33	\$ *	\$88.74
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.....	113.57	*	119.24
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.....	90.25	*	90.00
Choice Boxed Beef, 600-750 lb. Carcass.....	154.56	*	147.34
Western Corn Belt Base Hog Price Carcass, Negotiated.....	59.58	*	48.82
Feeder Pigs, National Direct 50 lbs, FOB.....	*	*	52.00
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean.....	64.18	*	55.32
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct.....	*	*	86.13
National Carcass Lamb Cutout, FOB.....	244.87	*	255.62
<u>Crops,</u>			
<u>Daily Spot Prices</u>			
Wheat, No. 1, H.W. Imperial, bu.....	4.49	*	9.41
Corn, No. 2, Yellow Omaha, bu.....	3.80	*	4.70
Soybeans, No. 1, Yellow Omaha, bu.....	6.73	*	11.53
Grain Sorghum, No. 2, Yellow Dorchester, cwt.....	6.29	*	8.41
Oats, No. 2, Heavy Minneapolis, MN, bu.....	2.83	*	3.18
<u>Hay</u>			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.....	135.00	*	135.00
Alfalfa, Large Rounds, Good Platte Valley, ton.....	92.50	*	85.00
Grass Hay, Large Rounds, Good Northeast Nebraska, ton.....	82.50	*	*
* No market.			

A survey of custom rates is conducted every two years to determine the current rates charged for specific field and other machinery operations. The two parts of the 2006 survey were conducted in the January to May period in 2006. We appreciate the cooperation of the respondents who share their information on the rates they charge. This information is widely used. We are always a little leery about the process. Is the information we collect representative of what is being charged? And the big question: Are we reporting the rates charged or setting the rates? That is a risk, but our philosophy has been that it is always valuable to have as much information available for business decisions as possible.

The survey for 2008 has just begun, but Part I information on spring and summer activities will not be compiled and available until late March. In the meantime, custom operators are setting their rates, and arrangements are being made for custom operations. The question is: what adjustments should be made in the 2006 rates for 2008? Following is a suggested procedure to adjust the 2006 rates for current conditions.

The five major cost components of performing custom operations are:

- (1) Fuel and lubrication.
- (2) Labor – the value of the labor to perform the custom operation.
- (3) Machinery repairs.
- (4) Machinery ownership costs. This includes depreciation, interest, taxes, housing and insurance.
- (5) Profit.

Cost Adjustments from 2006 to 2008

(1) Fuel: Diesel fuel costs have increased about \$.75 to \$1.00 per gallon since the 2006 survey was conducted.



(2) Labor: The average labor rate assumed in the custom rates was reported by the survey respondents to be \$11.00 per hour. Based on an increase in living costs, it is fair to increase the labor rate. The exact amount of increase is the decision of individual operators. For illustration purposes I am going to assume an increase of \$1.00 per hour.

(3) Machinery Repairs and Ownership Costs: Ownership costs are a direct function of the purchase cost of a new machine. The repairs and ownership costs have increased at least 6 to 10 percent over the past two years, depending on the machine. For some machines, such as combines, it might be as much as 15 percent. These costs account for about 70 percent of the total cost of performing custom operations. This varies depending on the value of the primary machine and the performance rate (number of acres completed per hour).

Procedure to Adjust Rates

An adjustment for a specific operation can be calculated using the following three steps. Use the numbers that are specific to your situation and the operation you are analyzing.

- 1) Fuel: Gallons of fuel used per acre for the operation times the increase in diesel fuel cost per gallon.

$$\text{_____ gallons per acre} \times \text{_____ per gallon increase in fuel cost}$$
- 2) Labor: Hours per acre times the increase in the labor rate per hour.

$$\text{_____ hours per acre} \times \$\text{_____ per hour increase in labor rate}$$
- 3) Repairs and ownership costs: 2006 rate times 70 percent times the percentage increase in the cost of the machine. See note above regarding the 70 percent.

$$\text{\$_____ per acre (2006 rate)} \times .7 \times \text{._____}$$

Example

Assume the rate for planting row crops with a 12 row planter in 2006 was \$12 per acre. The fuel consumption is about .5 gallons per acre and 12 acres per hour are planted which equates to .083 hours per acre. For illustration purposes, I am using 10 percent for the increase in the cost of the planter. The adjustments are as follows:

Fuel: 0.5 gallon per acre x \$.75 per gallon increase	
	= \$.38
Labor: .083 hrs/ac x \$1.00 per hr increase in labor rate	
	= .08
Machinery: \$12 per ac (2006 rate) x .7 x .1	= .84
Total	\$1.30

Hence the rate comparable to the 2006 rate of \$12.00 per acre is now \$13.30 per acre.

Supporting Information

The 2006 Nebraska Farm Custom Rates publications are available online.

Part I:

<http://www.ianrpubs.unl.edu/epublic/live/ec823/build/ec823.pdf>

Part II:

<http://www.ianrpubs.unl.edu/epublic/live/ec826/build/ec826.pdf>

Information on machinery costs, work performance rates and fuel consumption are available in a University of Minnesota publication “Machinery Cost Estimates.” It is available online at:

<http://www.extension.umn.edu/distribution/businessmanagement/DF6696.pdf>

The costs, fuel consumption and work performance rates for a few of the machines listed in the University of Minnesota publication are in the table on the next page.

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Machinery Costs for Selected Operations

Implement	Tractor Size (HP)	Net Cost of a New Implement ¹	Estimated Work Performed acres/hr	Power Cost/Acre	Implement Repairs Cost/Acre	Implement Ownership Costs/Acre ²	Total Cost/Acre ³	Diesel Fuel Gal/Acre
Tillage Equipment								
Chisel Plow 37 Ft	310 4WS (270PTO)	\$35,000	20.97	\$4.11	\$0.51	\$2.24	\$7.45	0.60
Tandem Disc H.D. 30 Ft Fold	360 4WD (313 PTO)	\$39,000	17.45	\$5.40	\$0.75	\$2.41	\$9.26	0.79
V Ripper 30" O.C., 17 Ft	260 4WD (226 PTO)	\$16,000	10.51	\$7.25	\$0.49	\$1.65	\$10.56	0.99
Planting Equipment								
Row Crop Planter 12 Row-30, 30 Ft	105 MFWD	\$48,000	14.00	\$2.30	\$1.01	\$4.93	\$9.49	0.34
Presswheel Drill 25 Ft	130 MFWD	\$35,000	10.61	\$3.92	\$1.04	\$4.58	\$11.12	0.54
No-Till Drill 30 Ft	200MFWD	\$70,000	12.73	\$5.02	\$1.87	\$7.09	\$15.29	0.81
Crop Maintenance Equipment								
Cultivator 16 Row-30, 40 Ft	200 MFWD	\$19,000	20.61	\$2.94	\$0.22	\$0.98	\$4.75	0.44
Harvesting Equipment								
Swather-Cond, Self-Prop 16 Ft	None	\$88,000	7.76	\$2.37	\$0.73	\$15.24	\$19.88	0.40
Hay Baler PTO Twine 12 Ft	40	\$19,000	4.36	\$2.47	\$2.20	\$2.35	\$10.83	0.40
Round Baler 1500 lb, 12 Ft	60	\$21,000	4.02	\$4.16	\$4.49	\$2.78	\$14.74	0.77
Large Rectangular Baler 24 Ft	130 MFWD	\$75,000	16.29	\$2.55	\$0.59	\$4.84	\$8.80	0.35
Combine Grain Head 30 Ft	Combine 275 HP	\$27,000	10.18	\$14.74	\$0.31	\$1.58	\$18.26	1.49
Combine Corn Head 12 Row-30, 30 Ft	Combine 275 HP	\$66,000	7.64	\$23.57	\$1.01	\$5.13	\$31.89	2.41

¹ Net cost of a new unit assumes no trade-in. Farm machinery is exempt from sales tax in Minnesota, so no sales tax is included.

² Includes depreciation, interest, insurance, taxes and housing.

³ Includes labor of \$15/hr for planting and harvesting, and \$12/hr for other operations.

From University of Minnesota publication "Machinery Cost Estimates."