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2007 Iowa Farm Machinery Custom and Rental Rate Survey

By Tom Junge, Iowa Field Director

Iowa State University conducts a custom rate survey for specific farm operations each year, along with a few equipment rental rates. Sometimes dealers use these rates to justify the cost of a piece of equipment to a customer. Here is a sampling of the results:

Custom Rate (rates expected to be charged or paid, including fuel and labor)

	Average	Range
Planter-no-till/acre	\$13.65	10.00-19.00
Disk/chiseling/acre	\$12.70	9.00-16.15
Subsoiling (8" to 15" deep)/acre	\$14.50	10.00-20.00
Soil finishing/acre	\$10.10	8.00-13.00
Spraying, broadcast, tractor/acre	\$5.15	4.00-7.00
Spraying, broadcast, self-propelled/acre	\$5.65	3.50-8.50
Corn combining/acre	\$26.60	20.00-36.00
Soybean combining/acre	\$25.80	20.00-35.00
Mower conditioning/acre	\$10.75	9.00-15.00
Baling-large square/bale	\$8.30	6.50-10.70
Baling-large round with wrapping/bale	\$9.70	7.00-14.00
Mowing CRP acres/acre	\$10.45	6.50-15.00

Machine Rental (operator, tractor and fuel not included)

	Average	Range
Tractor/horsepower/hour	\$0.20	.10 - 0.35
Skid loader/hour	\$34.50	10.00 - 59.15

Custom Farming - Growing and Harvesting

	Average	Range
Corn/acre	\$88.60	70.00-125.00
Soybeans/acre	79.15	65.00-105.00

The full report can be found at www.extension.iastate.edu/publications/FM1698.pdf

What does the Future Hold for Agriculture's Solution to the Energy Problem?

After reading material from a recent Association of Equipment Manufacturer's meeting, I came to three conclusions regarding agriculture's solution to the energy problem: 1) corn ethanol is a short term solution; 2) corn stover is also a short term solution at best due to quantity of by-product and harvesting/transportation issues; and 3) farmers will need to grow an energy crop to meet the President's energy goals and nobody knows what that energy crop will be yet.

At the 2007 State of the Union address, the President set a goal of 35 billion gallons of renewable fuels by 2017.

Ethanol from corn is projected to top out at 15 to 20 billion gallons. Corn ethanol has the potential to displace 10 to 20 percent of our gasoline. Since corn is also considered a food supply, its use for fuel will remain controversial.

Soybeans, fats and grease have the potential to displace only 5 to 10 percent of our diesel. However, soybeans are also a food supply. Currently, the increased export of soybeans to China has raised its price, making it unfeasible for fuel processing.

Oil crops being explored (oil content as % of dry weight) include:

Soy	20%
Safflower	40%
Dry Coconut	60%
Canola	40%
Hemp	30%
Peanut	50%
Sunflower	55%
Palm Kernel	50%
Flaxseed	45%
Castor	45%
Mustard	40%
Jatropha*	55%

*Jatropha – native to Central America; Goldman Sach's prediction.

Ethanol from ag residue could add an extra 10 billion gallons. However, it would require 208,333 acres of corn stover at three tons/acre for each 50 million gallon cellulosic ethanol plant. Transportation costs will likely make this an unfeasible solution. One pass operation is necessary to improve economics of harvesting corn stover.

Lignocellulosic biomass has the potential to displace 50 to 70 percent of our gasoline. Over one billion tons/year could be available.

Breakdown:

Perennial crops	35.2%
Grains	5.2%
Corn stover	19.9%
Manure	4.1%
Forest	12.8%
Urban Waste	2.9%
Soy	6.2%
Other crop residues	7.6%
Wheat Straw	6.1%

A dedicated energy crop of herbaceous (switchgrass, miscanthus, bluestem, elephant grass, and wheatgrass) or short rotation woody crops (cottonwood, silver maple, black locust, willow and poplar) has the potential of more than five tons per acre. With further research, energy crops reaching 10 to 20 tons per acre remain possible.

For the short term, ethanol from corn will continue and ethanol from corn stover will be tested. Long term, farmers will have the option of growing an energy crop. The good news is that this energy crop will compete for acres planted to corn and soybeans, resulting in continued high commodity prices. ■