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There has been a lot of concern about the rapid increase in fuel prices this past winter. Truckers have been especially hard hit by the increases.

According to the U.S. Department of Energy, average over-the-road diesel prices on the East Coast increased from the high \$1.20s in December to a high of \$1.63 during the week of Feb. 7. Since that time, prices have fallen to an average of

\$1.485 (as of March 20). Compared to one year ago, diesel prices are about 40 percent higher.

Coupled with poor crop yields in many parts of the commonwealth last year and current low commodity prices, higher fuel prices will put additional financial stress on Pennsylvania farmers. Compared to last year when many farmers were paying \$0.75-\$0.85 per gallon for dyed diesel fuel, current prices are around \$1.20-\$1.30 per gallon. The average hourly fuel cost for a range of diesel prices for various size tractors is given in Table 1 (fuel consumption is based on Nebraska Tractor Test data). For example, to run a 90h.p. tractor for one hour would cost \$4.75 at a diesel fuel price of \$1.20 per gallon

Fuel Cost	30	50	70	90	110	130	150
(\$/gal.)							
\$/hour⁺ \$0.80	\$1.06	\$1.76	\$2.46	\$3.17	\$3.87	\$4.58	\$5.28
					+		\$5.94
\$0.90	\$1.19	\$1.98	\$2.77	\$3.56	\$4 36	\$5 15	•
\$1.00	\$1.32	\$2.20	\$3.08	\$3.96	\$4.84	\$5.72	\$6 60
\$1.10	\$1.45	\$2.42	\$3.3 9	\$4.36	\$5.32	\$6.29	\$7 26
\$1.20	\$1.58	\$2 64	\$3.70	\$4.75	\$5.81	\$6.86	\$7 92
\$1.30	\$1.72	\$2.86	\$4.00	\$5.15	\$6.29	\$7.44	8858
\$1.40	\$1.85	\$3.08	\$4.31	\$5.54	\$6 78	\$8.01	\$9.24
\$1.50	\$1.98	\$3.30	\$4.62	\$5.94	\$7.26	\$8.58	\$9.90
\$1.60	\$2 11	\$3.52	\$4.93	\$6.34	\$7.74	\$ 9 15	\$10.56
\$1.70	\$2.24	\$3.74	\$5.24	\$6.73	\$8.23	\$9.72	\$11.22
\$1.80	\$2.38	\$3.96	\$5.54	\$7.13	\$8.17	\$10.30	\$11.88
\$1.90	\$2.51	\$4.18	\$5.85	\$7.52	\$9.20	\$10.87	\$12.54
\$2.00	\$2.64	\$4.40	\$6.16	\$7.92	\$9.68	\$11.44	\$13.20
\$2.10	\$2.77	\$4.62	\$6.47	\$8.32	+ +	\$12.01	\$13.86
\$2.20	\$2.90	\$4.84	\$6.78	\$8.71	\$10.65	\$12.58	\$14.52

*For gasoline engines, increase cost per hour by 36 percent. For LP gas engines, increase cost per hour by 64 percent.

Most farmers are more interested in fuel cost per acre rather than fuel cost per hour. Fuel cost pre acre will vary from field operation to field operation because of differences in ground speed, implement width, and field efficiency. Converting the fuel cost per hour figures to fuel cost per acre requires an estimate of the number of acres which can covered with the tractor and implement per hour.

Fuel cost per acre can be esti

an increase in cost of abo. \$0.52/acre.

If you do not have a good feel for the how many acres you can do in an hour, this number can be estimated based on ground speed, implement width, and field efficiency using the following equation:

Field capacity (acres/hour) = [ground speed (mph) x implement width (feet) x field efficiency (%)])8.25

Estimates for ground speed and field efficiency for various field operations can be found in Table 2. If you have small or irregularly shaped fields, use numbers on the low end of the ranges. For example, the field capacity of row crop planting could be estimated as [4 mph x 12 feet x 50%])8.25, or 2.9 acres/hour. In this case, the fuel cost per hour for the 90-h.p. tractor would be \$4.75/2.9 or approximately \$1.64/acre. Table 2. Ground speeds and field efficiencies for various field operations.

Rob Eshbach poses with his junior yearling bull, Ashbrook's McDoogle, after winning grand champion Highland bull honors at the National Western Stock Show in Denver, Colo. Displaying the banners is judge Richard Chapman.

York Highland Cattle Top National Show

JOYCE BUPP

York Co. Correspondent DOVER (York Co.) - Two Highland bulls owned by a York county cattle breeder snagged top prizes at the breed's national show in Colorado recently, taking both grand champion and reserve grand champion honors for Ashbrook Farms, Dover.

The champion, Ashbrook's McDoogle, is just a junior yearling. But the youngster so pleased judge Richard Chapman that he singled out the homebred for breed champion honors at the National Western Stock show in Denver, Colo.

Pulled into the winner circle as reserve champion was herdmate Jock of Mapleview, Ashbrook's 3-year-old senior herd.

Their side-by-side honors were an impressive showing for owner Rob Eshbach, who only began exhibiting the beef cattle in 1995. Eshbach, whose Ashbrook Farm's name is the English translation of the family surname, acquired his first Highlanders in 1993.

"The first one I ever saw was hanging in a butcher shop in Lancaster county," he said with a chuckle. "It was a head mount and it piqued my interest."

So intrigued was Eshbach with the shaggy, rusty-hued beef cattle that he purchased a young pair from noted Highland breeder Peter Sheppard of Hanover. That initial investment has since grown into a herd of 10 head, including six females and bulls of varying ages.

"In fact, we have a surplus of bulls right now," Eshbach said.

His father, Warren Eshbach, is also an owner of some of the herd. Rob's brother David is their key assistant in tending the herd at home, as well as on the show circuit.

At the first show Eshbach exhibited, hosted at the Garret County Fairgrounds in western Maryland, he placed second each with the bull and bred heifer he had entered. His enthusiasm whetted, Eshbrook has since participated in several national shows, including the North American International Livestock Exhibition (NAILE) at Louisville, Ky., and the Royal Winter Fair in Toronto, Canada.

In fact, the Denver show reserve winner, Jock, took the breed's grand champion honors at the Louisville NAILE in November.

"We've had a lot of offers to buy the bulls, but so far have chose not to sell," he said of the winning pair. Jock will be three years old in May, and is being collected for AI breeding service, available through Ashbrook. Eshbach is especially pleased with the bull's early maturing characteristics and the "laidback" temperament of both these young bulls he has been handling and showing.

Along with marketing and showing \mathbf{the} family's Highlanders, Eshbach has been tapped into leadership with the beef breef's regional organization. He serves as president of the Middle-Atlantic Highland Association, or MAHA, which includes more than 70 members across the region and continues to grow, as increased interest in Highland cattle is developing

MAHA's next scheduled activity is the annual regional breed show to be hosted at the York County 4-H Center's livestock exhibit area May 6. Cattle will begin arriving the night before, with the show tentatively scheduled to begin at 11 a.m.

An event of special interest in conjunction with the show is a silent auction of cattle, with a voluntary 10 percent of sale proceeds to benefit the association.

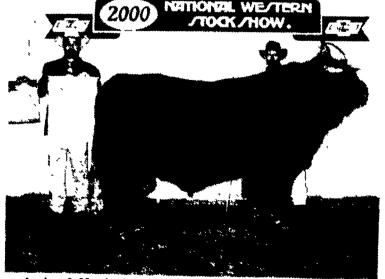
"We don't have enough sale entries to justify having an auctioneer," said Eshbach of the unique and simple cattle marketing arrangement devised by MAHA for its sales. "A clipboard is posted next to each animal for sale and potential buyers can write a bid down. A contending bidder can list a higher offer. Those written bids can continue until a final one is made."

Organizers are hoping for 15 to 20 head of Highland entries in the year's breed sale in York. Anyone interested in more information on the Middle Atlantic Highland Association or its upcoming show and sale may contact Rob Eshbach at RR 21. Box 118, Dover, PA, 17315, (717 292-5400.

Lancaster Farming, Saturday, April 8, 2000-B17



IMPACT OF RISING FUEL PRICES ON COST OF AGRI-CULTURAL MACHINERY **OPERATIONS**



Jock of Mapleview, exhibited by Ashbrook Farms, took the reserve champion Highland bull banner at the National Western Stock Show. At the halter is owner Rob Eshbach. Judge Richard Chapman displays the banners.

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mated by dividing the fuel cost per hour figure from Table 1 by the estimated number of acres covered per hour. For example, if a particular field operation can be done at the rate of 3 acres per hour, the fuel cost per hour for the 90-h.p. tractor would be \$4.75/3 or approximately \$1.58/acre. If the same farmer had purchased diesel fuel for \$0.80 last year, this represents

Moldboard plowing	3-6	70-90
Chisel Plowing	465	70-90
Disking	4-7	70-90
Field cultivating, harrowing	5-8	70-90
Row crop planting	4-7	50-75
Grain drilling	4-7	55-80
Boom spraying	3-7	50-80
Fertilizer spreading	5-10	60-80
Corn picking	2-4	60-75

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