THE CHALLENGE OF CONTROLLING MACHINERY COSTS & PLANNING CUSTOM WORK

Dr. William Lazarus, University of Minnesota, Department of Applied Economics

Machinery cost and farm income trends in the FINBIN (**see note**) farm business summary database make it clear why machinery management continues to be a hot topic in the farm community. Looking at trends for farms likely to be growing forages (at least 70% of gross sales from dairy, beef, sheep, or any of these species along with cash crops) between 1999 and 2002, total crop acres per farm have grown 10% over the three years, from an average of 550 acres in 1999 to 606 acres in 2002. The data does not reveal how much of that acreage increase is due to larger and more sophisticated crop machinery. But, records show that machinery investments are increasing at an even faster pace than acreage. Machinery and equipment investment increased 16% over the three years, reaching an average of $164,950 per farm in 2002.

The chart shows how machinery-related expenses compare to other expenses to grow mixed hay on FINBIN farms in 2002. Most of the farms are located in Minnesota, but some North Dakota farms are also included in the database. The total of machinery-related and labor costs to harvest mixed hay came to $38/acre, which is two-thirds of the total $56/acre cost. The remaining third of the cost was for seed, fertilizer, land rent, and miscellaneous expenses.

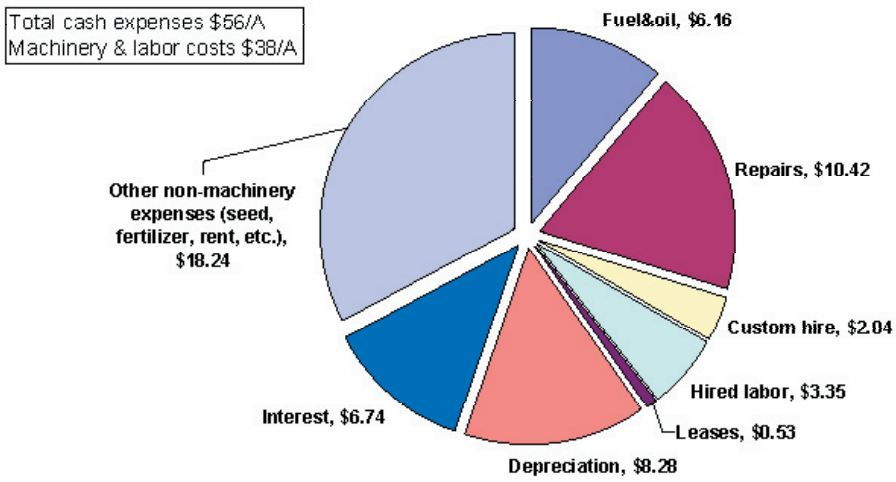
Repairs are the largest machinery expense, followed by depreciation, interest and fuel. The interest expense amount is a bit misleading in that it includes only debt interest, not the opportunity cost of the operators' equity capital invested in equipment or land.

Comparing the chart's per-acre 2002 machinery expenses with similar 1999 numbers, interest expenses have declined, probably due to lower interest rates. Other expenses that got slightly cheaper were depreciation and repairs. Total machinery expenses and the total of all expenses both decreased by about 10%, as did gross returns. Figures are for mixed hay, but the same trends seem to be present in alfalfa/grass hay, and alfalfa haylage enterprises. Expense items that increased are custom hiring, fuel, hired labor, and leases.

Custom hiring increased from $1.62/acre in 1999 to $2.04 in 2002. The increase in custom hiring expenses and the decreased depreciation might mean that custom work is increasing to some extent as farms get bigger and as expensive equipment is used on more acres as a way to spread costs.

Should more forage harvesting be done on a custom basis in the Upper Midwest? Comments have been expressed to the effect that issues like scheduling, acreage availability, rate negotiations, and payment security may cause potential custom operators and their customers to shy away from what could be viable arrangements. It is unknown how widespread such concerns are. Is there anything that Extension and/or the Midwest Forage Association could do to help set up viable custom work arrangements? If any readers have thoughts on the custom work issue, I'd be interested in hearing from you. Please call me at 612-625-8150, or email me at wlazarus@umn.edu.

Expenses Per Acre to Grow Mixed Hay, Minnesota and North Dakota, 2002



Source: 2002 data from 191 FINBIN farms.

Note: FINBIN is a historical database of financial information from farms in the Minnesota State College University farm business management program and the Southwest and Southeast Minnesota Farm Business Associations. FINBIN is maintained by the University of Minnesota's Center for Farm Financial Management. CFFM's website (finbin.umn.edu) allows summary reports to be generated from the database for benchmarking purposes.