

December 28, 2006

FEFO 06-23

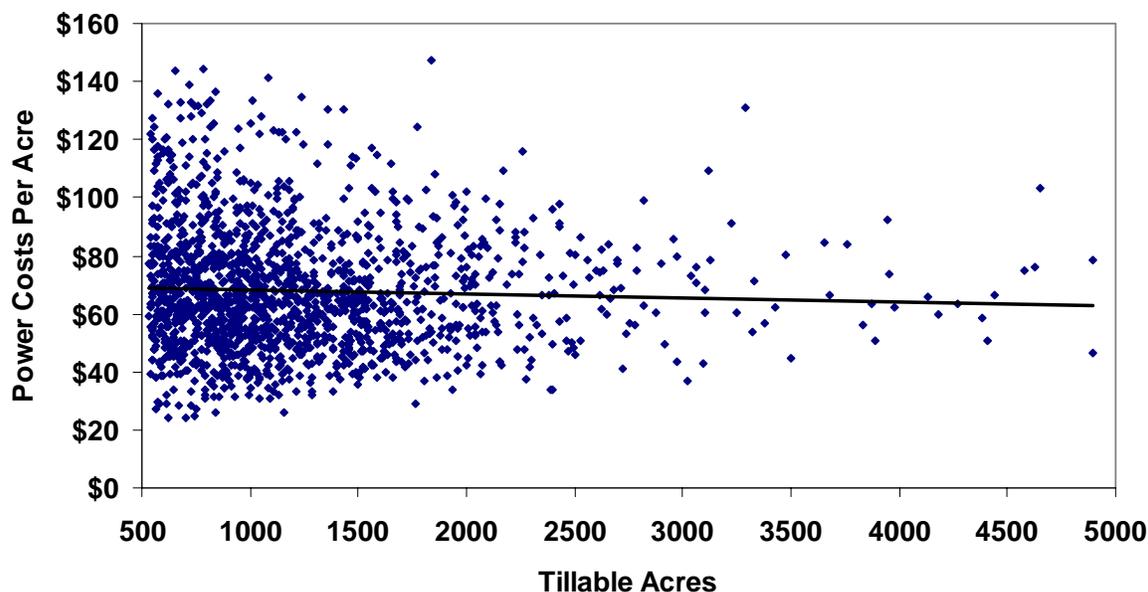
Per Acre Machinery Costs and Values on Illinois FBFM Farms, 2005

Summaries of Illinois Farm Business Farm Management (FBFM) records indicate that power costs on Illinois farms averaged \$68 per acre in 2005. Power costs contain charges for utilities (\$6), repairs (\$17), machine hire (\$8), fuel and oil (\$16), light vehicle (\$2) and machinery depreciation (\$19).

Variability in Power Costs

Power costs varied considerably across FBFM grain farms, as illustrated in Figure 1. Each dot shows an individual farm's power cost on the vertical axis and tillable acres on the horizontal axis. One-third of the farms had per acre power costs less than \$57 per acre while another one-third had costs higher than \$74 per acre.

Figure 1. Power Costs on Illinois FBFM Farms



Power Costs and Profitability

In general, farms that had lower power costs tended to have higher per acre management returns. Management returns is a measure of profits that equals revenues minus expenses, with expenses including

costs for unpaid labor and capital. Farms that had power costs less than \$45 per tillable acre had median management returns of \$39 per acre (see Table 1). As power costs increased, median management returns decreased. For power cost categories between \$46 and \$55 per acre, management returns were \$31 per acre. For farms with power costs above \$95 per acre, management returns were a negative \$31 per acre. Controlling power costs is a key in obtaining farm profitability.

Farm Size and Power Costs

Trends in power costs did not exist as tillable acres increased. Table 2 shows power costs for tillable acre classes. Farms with between 500 to 1,000 acres had power costs of \$67 per acre (see Table 2). The 1,001 to 2,000 tillable acre class had the lowest median power costs of \$63 per acre. Power costs were \$66 per acre for the farms with 2,001 to 3,000 acres, \$68 per acre for farms with 3,001 to 4,000 acres, \$66 for farms with 4,001 to 5,000 acres, and \$68 per acre for farms with over 5,000 tillable acres.

Machinery Values

Average fair market values for grain farms enrolled in FBFM are shown in Table 3. In general, fair market values decreased as tillable acres increased. Farms with between 500 to 1,000 acres averaged \$297 of machinery value per acre. Fair market values were \$269, \$258, \$244, and \$238 for categories of 1,001 to 2,000 tillable acres, 2,001 to 3,000 tillable acres, 3,001 to 4,000 tillable acres, and 4,001 to 5,000 tillable acres, respectively.

Averages in Table 3 do not demonstrate the variability of machinery values within a tillable acre class. Market values ranged from a low of \$100 per acre to over \$500 per acre.

Acknowledgements

Data used in this study comes from local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 6,000 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provides on-farm counsel with computerized recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State FBFM Office located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-5511 or visit the FBFM website at www.fbfm.org.

Table 1. Median Management Returns for Ranges of Power Costs, Grain Farms in Illinois FBFM, 2005.

Per Acre Power Costs	Management Returns (\$/acre)
Less than \$45	\$39
\$46- \$55	31
\$56 - \$65	14
\$66 - \$75	2
\$76 - \$85	-5
\$86 - \$95	-13
Greater than \$95	-31

Source: Illinois FBFM.

Table 2. Median Power Costs for Tillable Acre Classes, Grain Farms in Illinois FBFM, 2005.

Tillable Acres	Power Costs (\$/acre)
500 to 1,000	\$67
1,001 to 2,000	63
2,001 to 3,000	66
3,001 to 4,000	68
4,001 to 5,000	66
Greater than 5,000	68

Source: Illinois FBFM.

**Table 3. Median Fair Market
Machinery Values for Tillable Acre
Classes, Grain Farms in Illinois FBFM,
2005.**

Tillable Acres	Power Costs
	(\$/acre)
500 to 1,000	\$297
1,001 to 2,000	269
2,001 to 3,000	258
3,001 to 4,000	244
4,001 to 5,000	238

Source: Illinois FBFM.

Issued by: Gary Schnitkey and Dale Lattz, Department of Agricultural and Consumer Economics