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Bigger Is Better?

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July 18, 2014

farmdoc daily (4):134

Recommended citation format: Krapf, B., D. Raab, and B. Zwilling. "Bigger is Better?" *farmdoc daily* (4):134, Department of Agricultural and Consumer Economics, University of Illinois, July 18, 2014.

Permalink URL <http://farmdocdaily.illinois.edu/2014/07/bigger-is-better.html>

The notion that larger farms have a different and lower cost structure is prevalent. The idea that larger farms can negotiate lower prices would seem logical. The idea that larger farms have more acres to spread fixed costs over seems logical on the surface as well. Both of those ideas would indicate that as farms increase in size that costs are lower. With that in mind, let's review some 2013 data from three groups of farms and make our own conclusions. We will look at selected per acre costs on increasing average farm size (in acres) for farms in northern Illinois, central Illinois, and southern Illinois.

Table 1. 2013 Selected Cost Per Acre

| | Northern Illinois | | | Central Illinois | | | Southern Illinois | | |
|------------------------|-------------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|-----------------|-----------------|
| | 1200-1999 | 2000-2999 | Over 3000 | 1200-1999 | 2000-2999 | Over 3000 | 1200-1999 | 2000-2999 | Over 3000 |
| | Acres | Acres | Acres | Acres | Acres | Acres | Acres | Acres | Acres |
| Fertilizer | \$153.71 | \$153.34 | \$153.37 | \$140.44 | \$141.77 | \$141.06 | \$120.49 | \$126.63 | \$139.49 |
| Pesticides | \$57.40 | \$49.27 | \$50.58 | \$55.14 | \$52.72 | \$57.92 | \$50.60 | \$45.07 | \$55.99 |
| Seed | \$99.02 | \$104.62 | \$100.61 | \$97.46 | \$92.53 | \$92.62 | \$76.59 | \$74.31 | \$81.41 |
| Total Crop Cost | \$310.13 | \$307.24 | \$304.77 | \$293.05 | \$287.02 | \$291.60 | \$247.69 | \$246.01 | \$276.90 |
| Utilities | \$5.79 | \$5.72 | \$6.30 | \$5.01 | \$5.17 | \$5.64 | \$6.80 | \$6.00 | \$9.24 |
| Machine Repair | \$30.29 | \$29.07 | \$30.37 | \$24.35 | \$22.98 | \$23.43 | \$31.73 | \$27.85 | \$41.95 |
| Machine Hire | \$20.98 | \$17.17 | \$23.26 | \$10.60 | \$12.88 | \$18.40 | \$11.55 | \$11.58 | \$14.91 |
| Fuel & Oil | \$28.51 | \$31.09 | \$36.66 | \$26.41 | \$25.74 | \$31.24 | \$29.08 | \$30.01 | \$41.00 |
| Machine Depreciation | \$69.10 | \$66.00 | \$63.40 | \$65.23 | \$57.40 | \$60.26 | \$60.22 | \$64.71 | \$71.46 |
| Equipment Total | \$156.96 | \$151.04 | \$161.10 | \$133.16 | \$125.64 | \$139.80 | \$141.11 | \$141.74 | \$179.59 |

Source: Illinois FBFM

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Crop Costs

For 2013, total crop cost in northern and central Illinois show little variance as farm size increases. Southern Illinois shows a higher crop cost for the over 3,000 acre group. Crop cost from Illinois FBFM data are on an accrual basis and include fertilizer, pesticides and seed. A closer look at each of the components of crop costs reveals some differences in cost per acre as farm size increases. Northern Illinois does show lower pesticide cost as farm size increases but that trend does not hold for fertilizer and seed. Central Illinois shows a lower cost for seed as farm size increases but that trend does not hold for fertilizer or pesticides. Contrary to what one might think, the over 3,000 acre group in southern Illinois shows an increased cost for fertilizer, pesticides and seed.

Power and Equipment Costs

Power and equipment costs include utilities, machinery repairs, Machinery Hire, Fuel & Oil, and Machinery Depreciation. Illinois FBFM uses the concept of economic depreciation to more accurately assess depreciation cost than tax depreciation. Northern Illinois farms show an increasing cost per acre for fuel & oil but a decreasing cost per acre for machinery depreciation. Central Illinois farms show an increase in machine hire costs and fuel & oil costs as farm size increases. Machinery costs tend to decrease as farm size increases. Southern Illinois shows that power and equipment costs are similar for the 1200 and 2000 acre groups and that the over 3,000 acre group shows higher costs in all of the components of power and equipment costs.

Summary

While the notion that 'size matters' is prevalent the data from 2013 don't necessarily support that line of thought. Develop and nurture the relationships you have with your input suppliers to best manage your farming operation.

The authors would like to acknowledge that data used in this study comes from the 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 5,500 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide on-farm counsel along with 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.