



Comparing Machinery Values on Illinois Grain Farms

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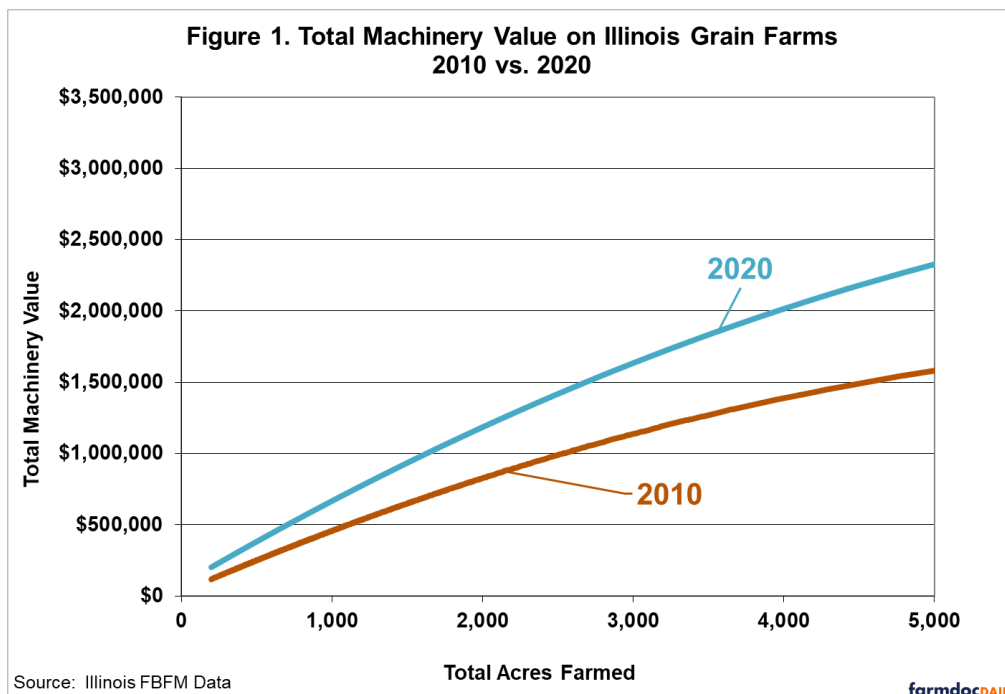
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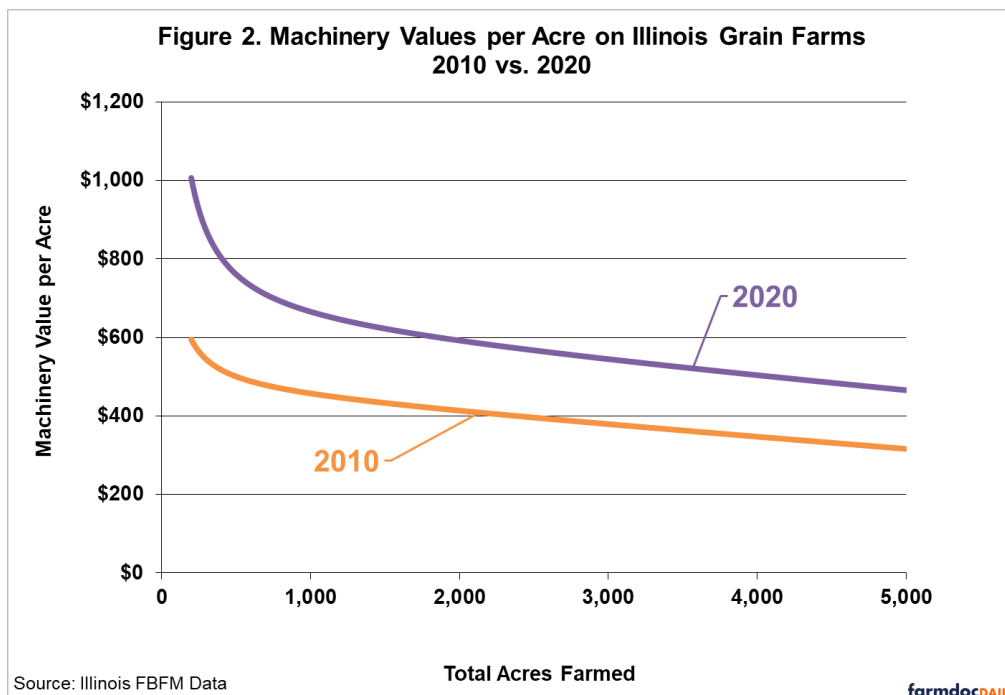
Not only has machinery values been increasing over time, so has the size of farms. This study compares machinery values on Illinois grain farms enrolled in Illinois Farm Business Farm Management Association (FBFM) for years 2010 and 2020. We also compare machinery value per acre during the same two time periods.

Figure 1 shows total machinery values at different acre levels for Illinois grain farms and compares 2010 to 2020. Both years show that as acres in a farming operation increased, so did the total machinery value. In looking at 2010 (the bottom line), a farmer with 1,000 acres would on average have about \$460,000 of machinery. In contrast, about \$660,000 would be the machinery value on average for a 1,000 acre farm in 2020 (the top line). This is about 43% increase in eleven years. When we compare other acre numbers, the amount of dollars difference increases, but the percent increase is about the same. It is interesting to note as well the size of the farm increases, the total machinery value increases at a decreasing rate. For example, when going from a 1,000 acre farm to a 2,000 acre farm, the average total machinery value increased by about \$540,000 in 2020. When going from 4,000 acre farm to a 5,000 acre farm, the average total machinery value increased about \$280,000 or about 50 percent of the increase from 1,000 acres to 2,000 acres in 2020.

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To look at the machinery value per acre farmed, we graphed these points in Figure 2 for Illinois grain farms. This figure shows the total machinery value per tillable acre farmed. For 2010 (the bottom line) and 2020 (the top line), machinery values per acre decreased as acres on the farm increased. As you can see, the smaller acreage farms had the largest increase in machinery value per acre going from about \$460 per acre for a 1,000 acre farm in 2010 to \$660 per acre for a 1,000 acre farm in 2020, or a 43% increase. 2010 machinery value on a per acre basis slowly decreased as the total acres on the farm increased. For 2020, the machinery value on a per acre basis decreased more rapidly, going from about \$660 for 1,000 acres to \$460 for 5,000 acres. For 2010, the decrease in machinery value per acres was about \$140 compared to \$200 for 2020.



Conclusion

The dollar amount of machinery needed increases as more acres are added to the operation. When comparing this over an eleven-year period from 2010 to 2020, the 2020 year increase in value was much higher on a dollar basis at lower acreages. The increase in machinery values was not only due to the increase in actual value of machinery, but in addition, larger equipment that can cover more acres as well as more technology. More machinery was also being purchased due to the increase in the federal expense election (\$500,000 in 2010 going to \$1,040,000 in 2020), allowing more of the capital purchases to be deducted as a current expense, if all of the qualifications of this tax law were met.

The author 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 5,000 plus farmers and 68 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide 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 217-333-8346 or visit the FBFM website at www.fbfm.org.