

Kentucky Land Values Continue To Increase¹

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United States Land Values

Farm real estate values, including land and buildings, across the United States continued to increase during 2001. As of January 1, 2002, the average value of all farm real estate across the nation was \$1,210 per acre. This is an increase of \$60 per acre or 5.2% in total value since January 1, 2001. This increase in agricultural land values continues an increasing trend that began in 1987, following the end of the Farm Financial Crisis. This 5.2% increase is slightly larger than the 4.6% increase that occurred during 2000.

Regionally, agricultural land values increased from 3.0% to 8.7% during 2001. The Lake States region demonstrated the largest increases of 8.7%. All regions continued to experience increases with record high values being observed in all but the Southern and Northern Plains areas. Urban influences in the Northeast Region continued to push land values to the highest average regional value of \$2,810 per acre. The Mountain region continues to have the lowest average land value of \$507 per acre followed closely by the Northern and Southern Plains with average values of \$571 and \$718 per acre, a result of the influence of extensive pasture and rangeland characteristic of the regions.

Kentucky Agricultural Land Values

During 2001 Kentucky farm real estate values, including land and buildings, increased from \$1,770 to \$1,850 per acre. This is an annual increase of 4.5% which is slightly less than the 5.2% increase for the United States. This 4.5% increase is considerably less than the 10.6% increase in land values Kentucky experienced during 2000.

Kentucky farm real estate values have steadily increased for the past 15 years. Since reaching a low of \$878 per acre in 1987 they have steadily increased to the current level of \$1,850 per acre. This represents an increase of \$972 per acre or more than 110% since the most recent low was established in 1987.

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This article presents information on the economic situation and outlook for Kentucky agriculture and is intended to assist farmers, agribusiness professionals, Extension field staff, and others with interest in agriculture and agribusiness. Information presented here is based on the most recent information and research available. However, the rapidly changing economic and policy conditions for agriculture limit the usefulness and life span of conclusions and recommendations cited here. Decision makers should keep these facts in mind. Feel free to use the information included in this publication for other uses, but please provide professional citation about the source. This paper is published without formal review and the views expressed are those of the authors and do not necessarily reflect the views of the University of Kentucky, the Agricultural Experiment Station, or the Cooperative Extension Service.

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As indicated in Table 1, Kentucky's change of 4.5% was similar to other increases in the region including the seven states that surround it. Missouri, for the second year, experienced a double digit percentage increase of 10.1% during 2001. Most of the other surrounding states demonstrated more moderate increases ranging from 3.1% in Tennessee to 8.9% in Ohio. No surrounding state experienced a decrease in agricultural land values during 2001. These changes in farm land values seem inconsistent with current agricultural economic conditions which are characterized by relatively low commodity prices. Undoubtedly, they are a reflection of the urban or non-farm demand for land for metropolitan expansion and recreational uses. It may also be a reflection of the current situation in the general economy which has been characterized by historically low interest rates and a stock market that has been performing poorly. These factors may be influencing investors to consider farm land investment as an alternative to the stock market. In addition, current government farm programs are providing farm business managers with sufficient liquidity to encourage land purchase for expansion purposes.

Table 1. Average Per Acre Value of Farm Real Estate, Kentucky, Surrounding States, and 48 States, 1995-2002.¹

| State | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | Change 01-02 Percent |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------------|
| Kentucky | 1,250 | 1,300 | 1,350 | 1,450 | 1,530 | 1,600 | 1,770 | 1,850 | 4.5 |
| Illinois | 1,820 | 1,900 | 1,980 | 2,130 | 2,250 | 2,380 | 2,530 | 2,640 | 4.3 |
| Indiana | 1,620 | 1,740 | 1,870 | 2,060 | 2,220 | 2,350 | 2,500 | 2,590 | 3.6 |
| Missouri | 880 | 950 | 1,010 | 1,070 | 1,130 | 1,250 | 1,380 | 1,520 | 10.1 |
| Ohio | 1,750 | 1,820 | 1,890 | 2,040 | 2,220 | 2,300 | 2,480 | 2,700 | 8.9 |
| Tennessee | 1,340 | 1,530 | 1,650 | 1,810 | 1,950 | 2,150 | 2,240 | 2,310 | 3.1 |
| Virginia | 1,720 | 1,840 | 1,880 | 1,920 | 2,040 | 2,200 | 2,350 | 2,490 | 6.0 |
| West Virginia | 920 | 980 | 1,050 | 1,090 | 1,070 | 1,150 | 1,280 | 1,370 | 7.0 |
| 48 States | 844 | 887 | 926 | 974 | 1,020 | 1,080 | 1,150 | 1,210 | 5.2 |

¹ Value of farmland and buildings as of January 1. Source: National Agricultural Statistics Service, USDA, Washington, D.C.

To augment the Kentucky real estate value data provided by the National Agricultural Statistics Service (NASS), a survey of Kentucky County Extension Agents was conducted as part of the Economic Subject Matter training meetings during October, 2001. The statewide survey involved all Agents participating in five training sessions and resulted in 59 useable responses. For reporting purposes, the state was divided into three regions, East (counties east of I-75) with 22 counties reporting, Central (counties between the Green River Parkway and I-75) with 24 counties reporting, West (counties west of the Green River Parkway) with 13 counties reporting. The results of this survey are presented in Table 2.

A comparison of the estimates provided by the NASS and the Kentucky survey indicates that the Agent Survey estimate of farm real estate values are considerably higher than those provided by the NASS. In making such comparisons one must realize that the Agent Survey is not scientific in nature, as

is the NASS estimate. However, the survey results do provide a regional breakdown to make them somewhat more useable at the local level.

Table 2. Average Price of Kentucky Agricultural Land and Expected Rate of Price Change Over Next 12 Months, October, 2001.¹

| | State | East Kentucky | Central Kentucky | West Kentucky |
|--|---------|---------------|------------------|---------------|
| Average Price of Ag. Land and Buildings | \$2,331 | \$1,636 | \$3,119 | \$2,050 |
| Expected Change in Next Year | 3.3% | 4.0% | 3.1% | 2.2% |
| Average Price of Crop Land (bare land) | \$2,017 | \$1,565 | \$2,538 | \$1,802 |
| Expected Change in Next Year | 2.7% | 3.3% | 2.8% | 1.5% |
| Average Price of Pasture Land | \$1,616 | \$986 | \$2,467 | \$1,104 |
| Expected Change in Next Year | 3.2% | 4.6% | 2.5% | 2.2% |

¹ *Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2001.*

The Kentucky Survey estimated the average value of farm real estate, including land and buildings, to be \$2,331 per acre whereas the NASS estimate was \$1,850 per acre. However, when you compare the average value of crop land at \$2,017 per acre or pasture land at \$1,616 per acre, the values become more comparable. Further, when you look at a regional breakdown of the survey data, the values reported in the West Kentucky region are quite comparable to the values reported by the NASS.

The regional breakdown of land values certainly suggests that there is a large urban influence on agricultural real estate values in the Commonwealth since the urban centers of Northern Kentucky, Louisville, and Lexington are located in the Central region of the state.

The most striking change in values in Table 2 is the dramatic difference between regions that has not been reported in the past. The average values reported in Central Kentucky are nearly twice those reported for Eastern Kentucky. This may be a reflection of the combined influences of strong urban pressure in the Central part of the state as well as changes taking place in the tobacco industry that may be reflected in the Eastern part of the state.

Kentucky Land Rental Rates

Land ownership is not the only method by which producers can acquire control of this important input to the agricultural production process. Another important method of getting use of land is by leasing or renting. Both land owners and tenants are interested in current developments that have taken place in the land rental market.

Crop land cash rental rates for Kentucky and surrounding states are presented in Table 3. Kentucky crop land cash rents decreased \$4.00 per acre during 2001, going from \$72.00 to \$68.00 per acre. This is the second year that land cash rental rates have declined in Kentucky. Virginia was the only other state in the region reporting lower cash rental rates in 2001. All other states experienced modest increases, except Illinois, where a \$5.00 per acre increase was reported.

Table 3: Crop Land Cash Rental Rates, Kentucky and Surrounding States, 1998-2002.¹

| State | Cash Rent (\$ per acre) | | | | | Rent to Value (in %) | | | | |
|-----------------|-------------------------|--------------|--------------|--------------|--------------|----------------------|------------|------------|------------|------------|
| | 1998 | 1999 | 2000 | 2001 | 2002 | 1998 | 1999 | 2000 | 2001 | 2002 |
| Kentucky | 65.00 | 70.00 | 74.00 | 72.00 | 68.00 | 4.2 | 4.3 | 4.9 | 4.1 | 3.7 |
| Illinois | 111.00 | 111.00 | 119.00 | 119.00 | 124.00 | 4.7 | 5.1 | 5.3 | 4.9 | 4.7 |
| Indiana | 98.00 | 99.00 | 100.00 | 100.00 | 101.00 | 4.5 | 4.7 | 4.5 | 4.1 | 3.9 |
| Missouri | 57.00 | 59.00 | 62.00 | 65.00 | 65.00 | 5.3 | 5.4 | 5.0 | 4.7 | 4.3 |
| Ohio | 73.20 | 73.70 | 74.00 | 76.00 | 76.50 | 3.2 | 3.5 | 3.3 | 3.2 | 2.8 |
| Tennessee | 57.00 | 62.00 | 60.00 | 59.50 | 60.50 | 3.2 | 3.3 | 2.9 | 2.7 | 2.6 |
| Virginia | 35.00 | 35.70 | 36.50 | 36.50 | 36.00 | 1.7 | 1.8 | 1.7 | 1.6 | 1.5 |
| West Virginia | 29.00 | 28.00 | 26.00 | 26.00 | 27.00 | 2.7 | 2.5 | 2.5 | 2.1 | 2.0 |

¹Source: National Agricultural Statistics Service, USDA, Washington, D.C.

Table 3 also presents the calculated rent-to-value ratios for the eight states. This ratio or percentage is often used to compare land cash rental rates to real estate values across regions. All eight states in the region experienced reduced rent-to-value ratios during 2001. These lower rates simply indicate that land values are increasing at a faster rate than are cash rents. They are also undoubtedly a reflection of current low grain prices and expectations that they will continue in the near future. These changes are much more consistent with existing and expected agricultural economic conditions than are the observed changes in agricultural land values.

Table 4 reports results of the Agent's Survey concerning cash rental rates for agricultural land. As with the comparison to NASS estimates of real estate values mentioned earlier, the reported values differ to some extent. However, the difference was not great. In fact, the two results are surprisingly close. The Agents Survey estimated a crop land cash rental rate of \$65.48 per acre whereas the NASS estimate was \$68.00 per acre. A comparison of the rental rates by region indicates that West Kentucky has by far the highest crop land cash rental rate of \$92.86 per acre while Central Kentucky's rate was \$53.90, and East Kentucky's rate was \$58.81 per acre. The higher rate in West Kentucky reflects the greater agricultural productivity of land in this part of the Commonwealth and the different predominant crop enterprises in the different regions.

Table 4. Typical Kentucky Crop and Pasture Land Cash Rental Rates, Rent as Percent of Value, and Expected Change in Rental Rates Over Next 12 Months, October, 2001.¹

| | State | East Kentucky | Central Kentucky | West Kentucky |
|---|---------|---------------|------------------|---------------|
| Typical Crop Land Cash Rental Rate per Acre | \$65.48 | \$58.81 | \$53.90 | \$92.86 |
| Rent as Percent of Value | 3.8% | 4.2% | 2.5% | 5.6% |
| Expected Change Over Next Year (in Percent) | 2.0% | 2.0% | 1.4% | 3.2% |
| Typical Pasture Land Cash Rental Rate per Acre | \$29.68 | \$26.45 | \$28.39 | \$37.42 |
| Rent as Percent of Value | 2.7% | 3.0% | 2.0% | 3.5% |
| Expected Change Over Next Year (in Percent) | 1.7% | 2.1% | 0.7% | 3.0% |

¹Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2001.

Table 4 also reports the expected change in rental rates for the next year. The Agents in all areas expected crop land cash rental rates to increase. However, the Agents in West Kentucky expected a much larger increase of 3.2% than did Agents in the Eastern Kentucky (at 2.0%) and Central Kentucky (at 1.4%). These differences in expectations may simply be a reflection of the difference in the type of farming operations characteristic of the regions of the state and their changing nature as changes in the tobacco industry continue to occur.

Table 4 also reports Agents' estimates of pasture land cash rental rates which NASS no longer reports for Kentucky. The rates reported for East and Central Kentucky are quite similar at \$26.45 and \$28.29 respectively. However, West Kentucky pasture land rental rates are considerably higher at \$37.42 per acre. The same type of difference also exists for the Agent's expected change in pasture land rental rates. They are expected to increase 3.0% in West Kentucky and considerably less in the other regions.

Crop share rental arrangements are also a common method of obtaining control of crop land in Kentucky. Table 5 presents results of the Agents Survey which indicate that 48% of the land rented in Kentucky is rented on a crop share basis while 52% is rented on a cash basis. This breakdown indicates that the use of crop share agreements continues to increase in Kentucky. It increased from 33% in 2000 to 48% in 2001. Further, there is a wide disparity in how land is rented by region of the state. Cash rental is much more prevalent in West and Central Kentucky at 70% and 63%, than it is in East Kentucky at 33%.

Table 5 also presents a breakdown of the most commonly used type of crop sharing arrangements across the Commonwealth. The 50/50 crop sharing agreement is by far the most common. However, there is a vast difference between regions of the state. The Eastern and Central regions of the state use the 50/50 agreement to a much greater extent than it is used in West Kentucky. The 25/75 and 33/67 agreements seem to be in much greater use in West Kentucky than is the 50/50 arrangement.

Table 5. Commonly Used Kentucky Crop Land Rental Arrangements, October, 2001.¹

| | State | East Kentucky | Central Kentucky | West Kentucky |
|---|-------|---------------|------------------|---------------|
| Cash Rental | 52% | 33% | 63% | 70% |
| Crop Share Agreement | 48% | 67% | 37% | 30% |
| Most Common Crop Sharing Arrangements: | | | | |
| 50/50 | 37% | 59% | 29% | 14% |
| 40/60 | 22% | 27% | 25% | 7% |
| 33/67 | 28% | 14% | 29% | 50% |
| 25/75 | 13% | 0% | 17% | 29% |

¹ *Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2001.*

Kentucky Agent Survey Results for 1996-2001

The annual survey of Agents described earlier has been going on since 1996. We have been able to collect annual estimates from Agents over six years. The results of the six years are reported in Tables 6 and 7. Table 6 reports the average value of Kentucky agricultural land over the six years (1996-2001) on both a statewide and regional basis. There were a few unexpected results reported over the six years.

As indicated by the NASS data reported earlier, there is a strong upward trend in agricultural land values in Kentucky over the past six years. Over the last two years, there seems to be some distinct differences in how land values are changing by regions of the Commonwealth. West Kentucky values

were up strongly in 2000 but down just a bit in 2001. Central Kentucky values were down somewhat in 2000. However, values were up markedly in 2001! East Kentucky experienced lower agricultural land values in both 2000 and 2001. These results seem to indicate that the general level of agricultural land values is increasing for Kentucky. However, the increases are not distributed uniformly across the state. The urban expansion and metropolitan demand for rural residences in the Central part of the state seems to be increasing the demand for agricultural land and resulting in higher land prices. The same conditions do not seem to be distributed in the West or particularly the East regions of the state.

Table 7 reports Kentucky crop and pasture land cash rental rates for 1996-2001. This table shows much greater variability in cash rental rates than one typically sees in results on a statewide basis. Looking at the results on a statewide basis, the cash land rental rates for both crop and pasture land appears to alternate between increases and decreases from year-to-year. These results seem to be at odds with the results reported by NASS over the period (see Table 3). However, if you simply compare the single point estimates for both NASS and the Agent survey for 2001, they are quite similar at \$68.00 and \$65.48, respectively. Thus it would appear that there is considerable variation in land cash rental rates depending on the region of the state that is of interest.

Table 6. Average Price of Kentucky Agricultural Land, 1996-2001.¹

| | Average Price of Ag Land & Buildings | Average Price of Crop Land | Average Price of Pasture Land |
|--------------------|---|-------------------------------|----------------------------------|
| State of Kentucky: | | | |
| 1996 | \$1,651 | \$1,608 | \$1,014 |
| 1997 | \$1,699 | \$1,753 | \$1,025 |
| 1998 | \$2,022 | \$1,971 | \$1,212 |
| 1999 | \$2,389 | \$2,162 | \$1,609 |
| 2000 | \$2,266 | \$1,903 | \$1,439 |
| 2001 | \$2,331 | \$2,017 | \$1,616 |
| East Kentucky: | | | |
| 1996 | \$1,300 | \$1,358 | \$684 |
| 1997 | \$1,586 | \$1,621 | \$879 |
| 1998 | \$2,044 | \$1,714 | \$1,168 |
| 1999 | \$2,885 | \$2,508 | \$1,976 |
| 2000 | \$2,524 | \$2,124 | \$1,721 |
| 2001 | \$1,636 | \$1,565 | \$986 |
| Central Kentucky: | | | |
| 1996 | \$2,032 | \$1,875 | \$1,382 |
| 1997 | \$1,883 | \$1,804 | \$1,363 |
| 1998 | \$2,183 | \$2,505 | \$1,415 |
| 1999 | \$2,203 | \$1,969 | \$1,500 |
| 2000 | \$2,086 | \$1,824 | \$1,524 |
| 2001 | \$3,119 | \$2,538 | \$2,467 |
| West Kentucky: | | | |
| 1996 | \$1,544 | \$1,606 | \$838 |
| 1997 | \$1,677 | \$1,923 | \$871 |
| 1998 | \$1,739 | \$1,743 | \$992 |
| 1999 | \$1,687 | \$1,801 | \$1,034 |
| 2000 | \$2,169 | \$1,729 | \$985 |
| 2001 | \$2,050 | \$1,802 | \$1,104 |

¹ Source: Survey of participants in Economic Subject Matter Training Meetings, October, 1996-2001.

Kentucky Farm Real Estate Outlook

The outlook for farm real estate values in Kentucky seems clear, just as it has for the past few years. Most agricultural commodity prices are relatively low across the board and have been for a number of years. This would suggest that agricultural real estate values should not increase. But, this has seemingly been the situation for a number of years and Kentucky farm real estate values have been increasing for 15 years. The increase of 4.5% experienced during 2001 was more in line with the increases across the region than was the 10.6% increase in 2000. It has become obvious that economic conditions in Agriculture are not the major driving force behind increasing farm land values. It is a combination of factors; including low interest rates, non-farm demand for land for housing and recreational uses, as well as national farm policies and programs that provide farm business liquidity, as well as farmer demand for land for expansion. Combining all these factors seem to point to an ever increasing value of agricultural real estate. However, the current recession in the general economy may result in reduced non-farm demand for agricultural land. This may result in more moderate increases in agricultural land values in the future.

Table 7. Typical Kentucky Crop and Pasture Land Cash Rental Rates, 1996-2001.¹

| | Crop Land | Pasture Land |
|---------------------------|------------------|---------------------|
| State of Kentucky: | | |
| 1996 | \$62.65 | \$24.44 |
| 1997 | \$60.24 | \$23.88 |
| 1998 | \$66.40 | \$36.15 |
| 1999 | \$57.54 | \$25.11 |
| 2000 | \$66.63 | \$30.04 |
| 2001 | \$65.48 | \$29.68 |
| East Kentucky: | | |
| 1996 | \$47.11 | \$18.97 |
| 1997 | \$40.75 | \$19.43 |
| 1998 | \$55.96 | \$31.94 |
| 1999 | \$53.33 | \$24.54 |
| 2000 | \$55.84 | \$28.75 |
| 2001 | \$58.81 | \$26.45 |
| Central Kentucky: | | |
| 1996 | \$51.82 | \$23.66 |
| 1997 | \$60.00 | \$24.88 |
| 1998 | \$64.41 | \$35.88 |
| 1999 | \$50.00 | \$25.38 |
| 2000 | \$65.24 | \$29.60 |
| 2001 | \$53.90 | \$28.39 |
| West Kentucky: | | |
| 1996 | \$84.25 | \$27.41 |
| 1997 | \$90.54 | \$30.91 |
| 1998 | \$88.21 | \$44.62 |
| 1999 | \$83.18 | \$25.83 |
| 2000 | \$81.25 | \$32.33 |
| 2001 | \$92.86 | \$37.42 |

¹ Source: Survey of participants in Economic Subject Matter Training Meetings, October, 1996-2001.

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