



# National Agriculture Week

MARCH 17-23, 2013

## Study shows Kansas cropland, pasture values higher than reporting methods

A new Kansas State University study indicates that using sales transaction data in determining the value of Kansas farmland shows a higher - in some cases significantly higher - value for the land than the traditional survey method derived from producer estimates of farmland value.

"The current growth in land values and the many businesses and personal decisions affected by these values warranted more extensive analysis to obtain estimates that were less aggregated than either the state or crop reporting district-level values that were available," said K-State Research and Extension agricultural economist Mykel Taylor. "For this study, we obtained sales transaction data from the Kansas Property Valuation Department, which reflect agricultural land sales in Kansas."

A paper outlining the study is available online at [www.agmanager.info/farmmgmt/land/lease/default.asp](http://www.agmanager.info/farmmgmt/land/lease/default.asp).

Taylor, along with K-State agricultural economist Kevin Dhuyvetter, embarked on the study in part because state budget cuts in 2009 forced changes in the way land values are reported in Kansas. Prior to 2009, the Kansas Agricultural Statistics Service conducted farmer surveys which allowed land values to be reported at the crop reporting district (CRD) level. There are nine such districts in the state.

"Unfortunately, the CRD-level estimates reported by KAS were discontinued in 2009, so now, no official government-reported data exist of regional values," Taylor said.

KAS does, however, report state average values for irrigated, non-irrigated, and pasture land, based on an annual survey of agricultural producers, asking for their estimate of the value of cropland and pasture land they operate.

Several potential problems exist with these data, however, Taylor said. "The data for these estimates is a survey of people's opinions, which may not be highly attuned

to the current land market." For example, she added, the KAS data have typically lagged behind estimates based on market data, suggesting that changes in land values are moving faster than people not actively engaged in the land markets realize.

Turning to the PVD data for a market-based estimate of land values, the team looked only at undeveloped parcels of land at least 40 acres in size, and only considered non-irrigated cropland and pasture. Characteristics such as parcel size, soil quality rating, percent of pasture and cropland within a parcel, and when a parcel was sold were all used to estimate county-level land values.

"In all cases, the survey-based estimates are lower than the market-based estimates derived from sales transaction data," Taylor said. "For non-irrigated cropland, the analysis using PVD transactions data suggests a state-level value of \$2,516 an acre, a 48 percent increase over the 2012 KAS-reported value of \$1,700 an acre.

Across the nine crop reporting districts, the differences range from a 15.4 percent increase over KAS values in the Southeast Crop Reporting District, to an 80.6 percent increase in the Northwest CRD."

Pasture values are similarly understated by the survey method, she added, noting that the transactions data estimate of \$1,589 per acre for the state is 67.2 percent higher than the KAS-reported value for 2012. Regional differences range from a 17.5 percent increase in the Southeast to a 150.8 percent increase over KAS pasture value for the Northwest CRD.

### Cropland Rental Rates Also Understated

A separate part of the study that looked at cash rental rates also indicated that USDA-KAS estimates are significantly lower than cash rent estimates using a method of calculating revenue from a crop share arrangement. The decision aid used to guide the latter is the KSU-Lease.xls Excel spreadsheet ([www.agmanager.info/farmmgmt/](http://www.agmanager.info/farmmgmt/)

land/lease). "As with crop and pasture land values, many people want to know how recent changes in both the land and commodity markets have affected rental rates for cropland," K-State's Taylor said.

Historically, the ratio of cash rent-to-land value (rent-to-value ratio) has been in the range of 5 to 7 percent, she said. This ratio indicates the annual return landowners can expect on their capital investment from renting land out, excluding capital gains. If that relationship still holds, then a state-level estimate for non-irrigated cropland of \$2,516 per acre would imply cash rental rates ranging from about \$126 to \$176 per acre.

"That leaves a large amount of negotiating room for landowners and tenants," Taylor added, which prompted the economists to use another method. Rather than targeting a particular rate of return on non-irrigated cropland, which may or may not reflect the productivity of the land or current crop prices, cash rents were estimated using a method of calculating revenue from a crop share arrangement.

A comparison of the rental rates from USDA-KAS and those estimated using the KSU-Lease.xls crop share approach adjusted for risk reveals the USDA-KAS estimates are significantly lower - as much as 71.6 percent in the Southwest CRD and 57.4 percent in the Central CRD.

The higher rental rates estimated by Taylor and Dhuyvetter reflect current grain prices, which have been strong. However, any changes in either expected commodity prices or yields (from a continuation of the drought, for example) will alter the rental rate estimates.

"The most important part of negotiating equitable rental rates is to recognize that market and production conditions may change quickly, making continued communication essential to long-term profits for both farmers and landowners," Taylor said.

## Take steps to control wind erosion before springtime winds blow

Even with recent precipitation here and there throughout the midsection of the country, drought conditions persist through several states, which could heighten prospects for wind erosion once springtime winds kick in.

"There are several things farmers can do to mitigate damage from wind erosion and it's best to do them before the wind really starts blowing," said Kansas State University assistant professor DeAnn Presley. "Often, wind erosion will start in a small area of a field where soil texture, aggregation, or vegetation conditions are more vulnerable to wind than other parts of the field."

The vulnerable areas, or "hot spots" are the areas that need control first, said Presley, who is a soil management specialist with K-State Research and Extension.

She, along with U.S. Department of Agriculture soil scientist, John Tatarko, authored a publication "Principles of Wind Erosion and its Control," available through K-State Research and Extension offices or online at [www.ksre.ksu.edu/bookstore](http://www.ksre.ksu.edu/bookstore). Search for MF2860.

Emergency tillage is tillage performed on an actively blowing field to provide a rough, ridged, cloddy surface. The idea, Presley said, is to reduce wind velocity and trap windblown soil particles.

"Emergency tillage is only a temporary measure, however," she added. "First, because clods can disintegrate rapidly under saltating conditions and second, because a change in wind direction can mean soil loss from untilled strips."

Saltating is sort of a chain reaction, where under the influence of wind, small particles bounce or hop along the soil surface, she said. As they bounce, they strike other particles, causing them to move. The higher the particles jump, the more energy they derive from the wind. Because of this wind-derived energy, the impact of saltating particles initiates movement of other grains and smaller dust particles that can be suspended in the air and carried long distances.

An implement used for emergency wind erosion

control should gently lift the soil, creating as many large stable clods as possible. Implements such as listers and chisels do a good job of roughening the soil surface and creating clods. Each has its own benefits, depending on soil type.

Adding crop residue to the surface reduces wind velocity and traps moving soil particles, Presley said. Almost any kind of residue, including straw, hay or corn stalks can be used. Approximately 2,000 to 4,000 pounds of residue per acre is required, however, to control erosion in areas that already have begun to erode.

Normally the residue must be anchored in place with a stubble puncher or disk, although long-stemmed residues such as corn stalks might not require anchoring.

Livestock manure also can reduce wind erosion, she said, particularly in growing wheat, fallow fields and row crops. Typically, six to eight tons of manure per acre controls wind erosion on vulnerable spots, but care should be taken when storing and applying manure, so as not to contaminate water sources.

Irrigation to control erosion is generally impractical and wastes water because the surface tends to dry rapidly under high wind conditions. However, if a high-value cash crop is at stake, irrigation might be a practical solution if enough water can be applied to keep the surface sufficiently moist.

Temporary, artificial wind barriers, such as board or snow fences or hay bales can be used if the eroding area is relatively small, such as stock watering areas or knolls. Protection can be expected for a downwind distance approximately 10 to 15 times the height of the barrier.

Soil stabilizers are soil additives or spray-on adhesives, which bind soil particles together, Presley said. They are generally expensive, temporary and used only for high-value cash crops such as vegetables. While there are a number of materials available, they are not compatible with all soils and often made ineffective by rainfall, cultivation, or abrasion from untreated areas.

*We Salute the Farm Families Who Work to Feed All of Us!*

**AUTO • BUSINESS • FARM • CROP • LIFE**



**AG SPECIALIST DAVE DONOVAN**  
• Farm and Ranch Insurance • Crop Insurance

*Bridges Group, Inc.*  
**INSURANCE**

"Serving the Norton Area Since 1894" 

117 N. Kansas, Norton, Kansas - 785-877-4016

*Ag Week March 17-23, 2013*

Honored to serve the farmers that serve our land so well



**WE ♥ FARMERS**

**NORTON ANIMAL HEALTH CENTER**  
[www.nortonanimalhealthcenter.com](http://www.nortonanimalhealthcenter.com)  
Aaron R. White, DVM • Sarah Ketterl White, DVM  
801 W. Holme, Norton, KS - 785-877-2411  
Hours: Monday-Friday: 8 a.m.-5 p.m.; Saturday: 9:00 a.m.-11:00 a.m.

*We Celebrate National Ag Week and Recognize the Contributions of Agriculture*



*National Ag Week March 17-23, 2013*

**Gloria Zwickle**  
— LMPA —

**NATIONAL AGRICULTURE WEEK**  
*March 17 - 23, 2013*

**Norton Fuel Service AND Norton Propane Service**  
206 N. Jones, Norton, KS - 785-877-3218  
**TOLL FREE 800-953-4985**

**AGRICULTURE ...our Growth Industry**

Honoring Our Agriculture Leaders...  
**Thank You for All You Do!**

**Worden Law Office**  
Charles Worden  
~ ATTORNEYS AT LAW ~  
213 S. Kansas Avenue, Norton, Kansas  
Phone: 785-877-3086

**Auto | Home | Life**



Call today to see how I make insurance simple and can help you protect what matters most.

**FARM BUREAU FINANCIAL SERVICES**  
Insurance • Investments

Securities & services offered through FBI Marketing Services, LLC, 5400 University Ave., West Des Moines, IA 50266, 877/862-2904. Member SIPC. Farm Bureau Property & Casualty Insurance Company, Western Agricultural Insurance Company, Farm Bureau Life Insurance Company, West Des Moines, IA. \*Affiliates \*Company providers of Farm Bureau Financial Services PC026-ML-1 (2-12)

**Have You Been Downtown? That's Where We Are**

Two Blocks East of 283 on Main (301 E. Main, Norton)

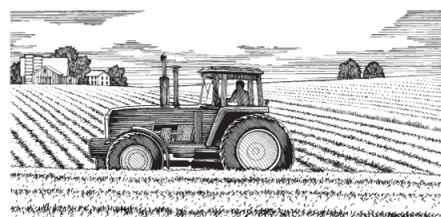
Thanks To Our Ag Industry  
National Ag Week March 17-23

**DOWNTOWN Car Wash**

**"It's JUST MORE FUN TO DRIVE A CLEAN CAR"**



*Saluting Our Farmers*



We Are Proud of All Your Hard Work and Love of the Land

**Lee Hardy Construction**  
1120 N. State, Norton - 785-877-5531

**Agriculture...**  
*The Root Of Our Economy*

Everything we do, we do for you™

We honor the hard work and dedication of those in the agriculture industry

Check out our online banking website: [www.unwfcu.org](http://www.unwfcu.org)

**United Northwest Federal Credit Union**

912 N. Archer, Norton - 785-877-5191