

# 2016 Kansas County-Level Land Values for Cropland and Pasture

April 2017 (available at [www.AgManager.info](http://www.AgManager.info))

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The value of Kansas cropland and pasture land has been changing rapidly over the past several years. As a result, many people are interested in current estimates of the value of an average parcel of ground for their county. Since Kansas is a non-disclosure state, there is very little publicly available information people may use for determining county-average land values.

In an attempt to improve the amount of land value information available, the Kansas Property Valuation Department (PVD) provides K-State with data on agricultural land sales.<sup>1</sup> These data reflect agricultural land sales in Kansas from 2014 through 2016. To obtain estimates that reflect land sold for agricultural purposes in an “arm’s-length” transaction, some observations were removed from the original dataset.<sup>2</sup> The sales data used in the analysis were limited to bare land (undeveloped) parcels of at least 40 acres in size. These filtered data were used in a regression analysis to estimate county-specific land (non-irrigated, irrigated, and pasture) values, referred to as KSU-PVD. The land-value model used characteristics of the parcels sold to determine impacts on price. Characteristics such as parcel size, growing season rainfall and temperature averages, soil characteristics (e.g. slope, percentage of sand, silt, and clay), percent of pasture and cropland within a parcel, and when a parcel was sold were all used to estimate county-level land values.

The county-level estimates and the average for each of the Crop Reporting Districts (CRD) are shown in Table 1, where the CRD average is a simple average of the counties that fall within the region. Table 2 provides a comparison between the 2015 estimates using PVD data and the 2016 land value estimates at the CRD level. Land values fell between 2015 and 2016 for all land types across the state. Statewide, non-irrigated land decreased 17.2% between 2015 and 2016. Irrigated cropland across the state decreased by 11.6% between 2015 and 2016 and pasture decreased by 7.8% during the same period. This is the first year of substantial decreases in Kansas land values since the early 1980’s.

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<sup>1</sup> The author would like to thank Leah Tsoodle (Kansas State University) and Jim Shontz (Property Valuation Department) and others for their assistance with data collection and interpretation.

<sup>2</sup> “Arm’s-length” refers to land sold through typical market channels and does not include intra-family transactions, court-ordered sales, or other transactions that may keep the sale from being considered a market-based transaction.

Irrigated cropland values are not reported for all counties. For statistical accuracy of the county-level estimates, a minimum number of land sales must be observed in a county. Counties with less than 6 observed sales of irrigated land over the period 2014 to 2016 are not presented in the table. As a result, irrigated land values at the CRD level are not reported for the Central, North Central, and three Eastern regions of the state.

Another source of land value data is the U.S. Department of Agriculture's National Agricultural Statistics Service (USDA-NASS), who report state average values for irrigated, non-irrigated, and pasture land. These values are based upon an annual survey of agricultural producers and landowners asking for their estimate of the market value of cropland and pasture land they own or operate. Figure 1 shows the state-level estimates of land values from USDA-NASS for non-irrigated and irrigated cropland and pasture from 2013 to 2016. The USDA-NASS land values estimates are consistently lower than the market-based KSU-PVD estimates. However, the relationship is relatively stable with USDA-NASS values approximately 35% lower than KSU-PVD estimates for non-irrigated cropland and pasture and 70% lower for irrigated cropland. The consistency between the two methods suggests that both methods capture the trends in a similar manner, but level differences between the two must be taken into account when referring to the data.

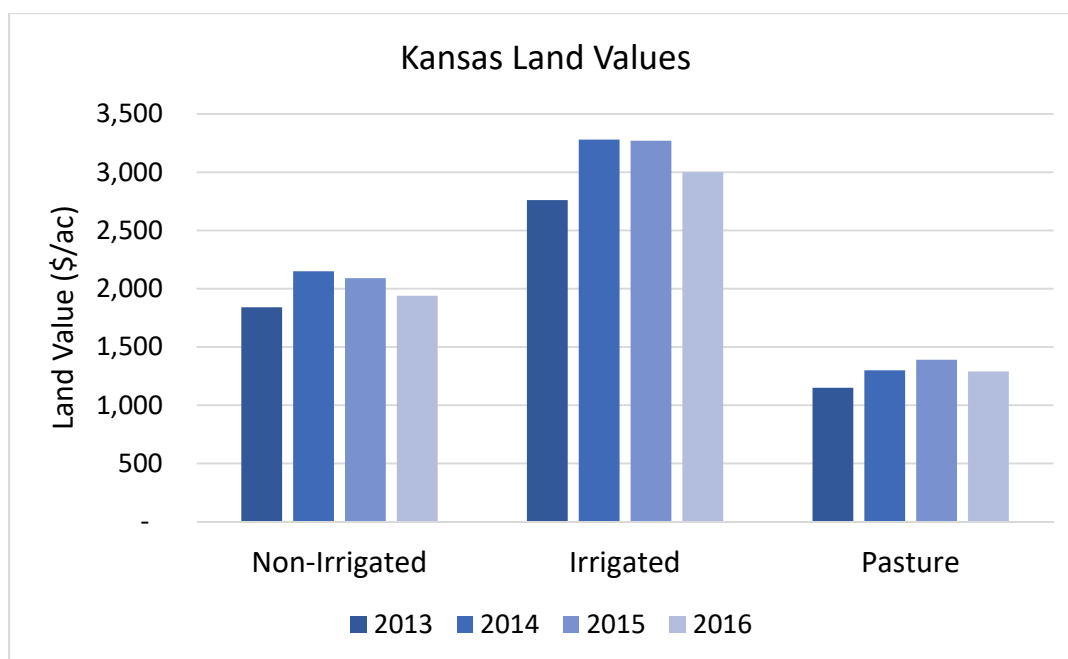


Figure 1. Average Kansas Land Value Estimates by USDA-NASS (2013 – 2016)

Table 1. Estimated Agricultural Land Values for 2016 using PVD Land Sales Data

CRD	County	Non-Irrigated, \$/ac	Irrigated, \$/ac	Pasture, \$/ac	CRD	County	Non-Irrigated, \$/ac	Irrigated, \$/ac	Pasture, \$/ac	CRD	County	Non-Irrigated, \$/ac	Irrigated, \$/ac	Pasture, \$/ac			
Northwest	Cheyenne	1,613	4,538	1,161	North	Clay	2,913	--	2,097	Northeast	Atchison	4,400	--	3,167			
	Decatur	2,032	--	1,463		Central	Cloud	3,534	--		2,544	Brown	5,264	--	3,789		
	Graham	895	--	644	Jewell		2,354	--	1,695		Doniphan	5,172	--	3,722			
	Norton	1,827	--	1,315	Mitchell		2,758	--	1,985		Jackson	3,606	--	2,596			
	Rawlins	1,479	--	1,065	Osborne		1,472	--	1,060		Jefferson	3,016	--	2,170			
	Sheridan	2,251	6,333	1,620	Ottawa		3,347	--	2,409		Leavenworth	5,037	--	3,626			
	Sherman	1,696	4,770	1,220	Phillips		2,333	--	1,679		Marshall	5,130	--	3,692			
	Thomas	2,415	6,795	1,738	Republic	2,486	--	1,789	Nemaha		4,172	--	3,003				
				Rooks	1,088	--	783	Pottawatomie	4,305	--	3,099						
				Smith	2,412	--	1,736	Riley	3,430	--	2,469						
				Washington	3,129	--	2,252	Wyandotte	--	--	--						
	<b>Average:</b>	<b>1,776</b>	<b>5,609</b>	<b>1,278</b>		<b>Average:</b>	<b>2,530</b>		<b>1,821</b>		<b>Average:</b>	<b>4,353</b>		<b>3,133</b>			
West	Gove	1,763	4,961	1,269	Central	Barton	2,122	--	1,528	East	Anderson	2,311	--	1,664			
Central	Greeley	1,708	4,807	1,230		Dickinson	3,330	--	2,397	Central	Chase	2,853	--	2,053			
	Lane	1,664	4,682	1,198		Ellis	1,934	--	1,392		Coffey	2,774	--	1,997			
	Logan	2,081	5,855	1,498		Ellsworth	781	--	562		Douglas	4,717	--	3,395			
	Ness	1,481	--	1,066		Lincoln	2,642	--	1,902		Franklin	3,580	--	2,577			
	Scott	2,198	6,185	1,582		Marian	3,043	--	2,190		Geary	2,116	--	1,523			
	Trego	1,471		1,059		McPherson	3,226	--	2,322		Johnson	--	--	--			
	Wallace	1,497	4,211	1,077		Rice	2,522	--	1,816		Linn	3,194	--	2,299			
	Wichita	2,026	--	1,458		Rush	1,022	--	735		Lyon	2,689	--	1,935			
				Russell		2,087	--	1,502	Miami		4,945	--	3,559				
				Saline		2,604	--	1,874	Morris		2,226	--	1,602				
									Osage		2,662	--	1,916				
									Shawnee		3,537	--	2,546				
									Wabaunsee		3,091	--	2,225				
	<b>Average:</b>	<b>1,766</b>	<b>5,117</b>	<b>1,271</b>		<b>Average:</b>	<b>2,301</b>		<b>1,656</b>			<b>Average:</b>	<b>3,130</b>		<b>2,253</b>		
Southwest	Clark	1,389	3,909	1,000	South	Barber	762	--	548	Southeast	Allen	1,924	--	1,384			
	Finney	1,429	4,020	1,029	Central	Comanche	1,425	4,009	1,026		Bourbon	2,713	--	1,953			
	Ford	1,757	4,944	1,265		Edwards	2,102	5,914	1,513		Butler	3,990	--	2,871			
	Grant	972	2,734	699		Harper	2,011	--	1,448		Chautauqua	1,808	--	1,301			
	Gray	1,372	3,859	987		Harvey	4,003	--	2,881		Cherokee	2,886	--	2,077			
	Hamilton	745	2,097	537		Kingman	1,726	--	1,242		Cowley	2,523	--	1,816			
	Haskell	1,149	3,232	827		Kiowa	1,746	4,913	1,257		Crawford	2,924	--	2,105			
	Hodgeman	1,377	--	991		Pawnee	1,831	5,151	1,318		Elk	2,902	--	2,089			
	Kearny	2,595	7,301	1,868		Pratt	2,315	6,513	1,666		Greenwood	1,782	--	1,282			
	Meade	946	2,662	681		Reno	1,864	5,244	1,342		Labette	2,006	--	1,444			
	Morton	798	2,245	574		Sedgwick	1,118	--	805		Montgomery	2,456	--	1,768			
	Seward	822	2,312	592		Stafford	2,379	6,693	1,712		Neosho	2,688	--	1,935			
	Stanton	766	2,155	551		Sumner	2,309	--	1,662		Wilson	2,557	--	1,840			
	Stevens	821	2,310	591							Woodson	2,554	--	1,838			
		<b>Average:</b>	<b>1,210</b>	<b>3,368</b>		<b>871</b>		<b>Average:</b>	<b>1,969</b>		<b>5,491</b>	<b>1,417</b>		<b>Average:</b>	<b>2,551</b>		<b>1,836</b>

Note: Missing estimates for irrigated values are due to insufficient observations of irrigated land sales in the previous three years.

**Table 2. Estimated Average Land Values by Crop Reporting District, 2015-2016**

	Crop Reporting District									State
	West			North	South		East		Southeast	
	Northwest	Central	Southwest	Central	Central	Central	Northeast	Central		
<b>Non-Irrigated</b>										
2015	2,131	2,123	1,458	3,054	2,782	2,379	5,282	3,787	3,077	2,897
2016	1,776	1,766	1,210	2,530	2,301	1,969	4,353	3,130	2,551	2,398
Difference, \$/ac	-355	-358	-249	-524	-481	-410	-929	-657	-526	-499
Difference, %										-17.2%
<b>Irrigated</b>										
2015	6,331	5,796	3,814	--	--	6,220	--	--	--	5,540
2016	5,609	5,117	3,368	--	--	5,491	--	--	--	4,896
Difference, \$/ac	-722	-679	-446	--	--	-729	--	--	--	-644
Difference, %										-11.6%
<b>Pasture</b>										
2015	1,377	1,372	942	1,973	1,797	1,536	3,412	2,446	1,987	1,871
2016	1,278	1,271	871	1,821	1,656	1,417	3,133	2,253	1,836	1,726
Difference, \$/ac	-99	-101	-71	-152	-141	-119	-279	-193	-151	-145
Difference, %										-7.8%

Note: Values for 2015 vary from previous publications of this bulletin due to updates in available data at the parcel level.