

ANSWERS

TO COMMONLY ASKED QUESTIONS ABOUT AGRICULTURAL LAND VALUE IN KANSAS

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General Questions:

Who establishes the appraised value of agricultural land in Kansas?

- By law, the Director of the Division of Property Valuation of the State of Kansas is required to make a determination of agricultural land values annually.

How is agricultural land valued in Kansas?

- Valuation of agricultural land in Kansas is governed by Kansas law. The appraised value of agricultural land is based on the productive potential directly attributed to the natural capabilities of the land, **not fair market value**. Cultivated land is valued using an eight-year average of the landlord share of net income, with soil types used to recognize land productivity potential. For grassland an eight-year average of the landlord share of the net rental income is used. In the case of grassland, productivity is established by use of the grazing index assigned to each soil type. In either case the resulting eight-year average landlord net income is divided by a capitalization rate to arrive at the appraised value.

How is the inherent productive capability determined for agricultural land?

- According to K.S.A. 79-1476, "valuations shall be established for each parcel of land devoted to agricultural use upon the basis of the agricultural income or productivity attributable to the inherent capabilities of such land." "A classification system for all land devoted to agricultural use shall be adopted by the director of property valuation using criteria established by the United States department of agriculture soil conservation service." That system, developed by the now Natural Resource Conservation Service (NRCS), is the Soil Rating for Plant Growth (SRPG) index for each soil map unit.
- The SRPG (Soil Rating for Plant Growth) is a numerical rating system developed by NRCS soil scientists for non-irrigated cropland. The index is not tied to yields, which removes management variables. It is designed to rate each soil map unit based on its potential for supporting plant growth and indexed based on the soil's properties.
- The KIPi (Kansas Irrigated Productivity Index) is a numerical rating system for irrigated cropland developed by Department of Agronomy at Kansas State University in cooperation with NRCS. The KIPi is designed to rank the productivity of each soil map unit.

What is the responsibility of the county appraiser concerning agricultural land?

- The county appraiser is responsible for discovering, listing, classifying and valuing all taxable property within the county in accordance with the applicable state laws in a uniform and equal manner. However as it relates to agricultural land, the county appraiser does not value this type of property but is responsible for listing each property's correct current usage and acreage.

What are the different types of agricultural land?

Agricultural land is classified in the following usage categories:

- Dry cultivated land
- Irrigated land
- Tame grassland
- Native grassland

Capitalization Rate:

What is the capitalization rate?

- The capitalization rate is used to convert the landlord share of agricultural net income into an agricultural value. The following three components make up the capitalization rate:
 1. The five-year average of the Federal Land Bank interest rate on new loans in Kansas as of July 1 of each year.
 2. An “add on” of not less than .75% nor more than 2.75% determined by the Director of Property Valuation.
 3. As of property tax year 2003, the capitalization rate shall not be less than 11% nor more than 12% as mandated by the 2002 Kansas Legislature.
 4. The county average agricultural property tax rate. This accounts for property taxes on agricultural land as an expense.

The sum of these three components is the capitalization rate percentage that is divided into the landlord net income (LNI) to arrive at the agricultural value. The higher the capitalization rate, the lower the agricultural value. For example, a higher county average agricultural property tax rate (expense) means the final agricultural value will be lower (all other things being equal).

Why are values in some counties higher than those in surrounding counties?

Differences can be attributed to one or more of the following:

- Crop mix, (the major crops in a county).
- Differences between landlord share of income and expense ratios.
- Different agricultural cap rate. For example, a county may have an extremely low agricultural cap rate due to an electrical power generating plant, which carries a large portion of the taxes.

Native and Tame Grassland

How is the landlord net rental income determined for grassland?

- The landowners share of gross rental income is based on stocking rates (measurement of productivity) and cash rental rates developed from regional studies performed by Kansas Agricultural Statistics, the Natural Resources Conservation Service and Kansas State University.
- The landlord shares of expenses are based on survey information collected by Kansas Agricultural Statistics and Kansas State University. Expenses included are; fencing and fence maintenance, pasture spraying and maintenance and watering cost.
- The landlord share of gross rental income less the landlord share of expenses (including a 10% management fee) equals the landlord share of net rental income.

Dryland:

How is the landlord net income determined for dryland?

- Using information from Kansas Agricultural Statistics, the landlord share of gross income is based upon the yields and prices of the primary crops grown in the county or region. Yields are based on planted acres and adjusted for summer fallow where applicable. Prices are based on the monthly average price weighted by the amount crop sold per month. Each of the primary crops are then weighted within the county to determine crop composition or “crop mix”.
- The landlord share of expenses are weighted by the crop mix factors within the county. The expense data is based on planted acres and survey information collected by Kansas Agricultural Statistics and Kansas State University.
- The landlord share of gross income less the landlord share of expenses (including a 10% management fee) equals the landlord net income.
- The eight-year average of the landlord net incomes are capitalized into value.

Irrigated Land:

How is the landlord net income determined for irrigated land?

- Using information from Kansas Agricultural Statistics the landlord share of gross income is based on yields of primary crop harvested acres. Each of the primary crops is then weighted within the district to determine crop mix.
- The landlord share of expenses is based on planted acres and is also weighted within the district. Kansas Agricultural Statistics and Kansas State University collect the expense data. Expenses are also weighed by the crop mix.
- The landlord share of gross income less the landlord share of expenses (including a 10% management fee) equals the landlord net income.
- Well depths are taken into consideration through irrigation equipment and fuel pumping costs.
- A water ratio table is used to adjust for water limitations.

Counties in the east irrigate; why don't they have separate values?

- These counties are in the one-acre-feet region of water, and irrigation is an insurance against dry periods.
- The irrigated values used in the east are a percentage increase of dryland values in the county and will change as dryland values in the county change

Why is irrigation valued on a district basis?

- It prevents massive value swings across county lines.
- It creates uniformity across county lines.
- Irrigation tends to lessen the effects of climate, allowing larger geographic areas to have approximately the same productivity.

Why is there still so much variability where the irrigation districts meet?

Variability can be attributed to differences in one or more of the following:

- crop mix,
- ownership of the sprinkler,
- ratio of flood and pivot acres in the district,
- district average yields,
- landlord share of net income,
- county agricultural tax rates, and
- differences between counties in the 2 acre-feet region and counties in the 1½ acre-feet region.

Changes in Landlord Net Incomes for 2016 Ag Values

Nonirrigated:

The 8 year average LNI increased in all of the 105 counties. Increases ranged from \$19.56 in Doniphan to \$0.23 in Grant; the average change was \$4.91; changes in northeast Kansas were the highest, between \$10.00 and \$20.00.

All crop prices increased across the state. In the western third of the state, yields increased generally, except wheat and sunflowers in some counties. Generally, both alfalfa and wheat yields tended to decrease in the central third of the state; other crop yields increased in most counties there. Most crop yields increased in the eastern third of the state; however, in some counties, alfalfa, sorghum, and soybean yields declined. Most counties in districts NW-10, NC-40, and C-50 shifted from wheat and sorghum to corn and soybeans; WC-20 shifted the crop mix away from corn, in general; NE-70 and EC-80 were fairly stable, with a small shift from wheat. SE-90 did just the opposite, showing shifts toward wheat. Expenses decreased in all counties in districts 10-60, except Dickinson in District C-50. Expenses increased in all counties in District NE-70, two counties in District EC-80, and six counties in District SE-90.

NW-10 Average 2013 LNI increased in all counties. Overall: yields increased, except sorghum and sunflowers in Sheridan and Sherman, respectively; all prices increased. The crop mix moved from wheat and sorghum to corn.

WC-20 Average 2013 LNI increased in all counties. Overall: yields increased, except for wheat in Greeley, Scott, and Wichita, sunflowers in Wallace, and sorghum in Wichita; all prices increased. The crop mix moved generally from wheat and corn. Some counties increased sorghum acreage.

SW-30 Average 2013 LNI increased in all counties. Overall: yields decreased, except in all crops in Hodgeman and Meade, and all prices increased. The crop mix shifted between wheat and sorghum, except in Stevens where corn acreage decreased.

NC-40 Average 2013 LNI increased in all counties. Overall: wheat yields decreased in all counties, while sorghum, soybeans, and alfalfa decreased in some counties. Prices increased for all crops in all counties. The crop mix shifted out of wheat in all counties, except Cloud. A few counties decreased sorghum, corn, and soybean acreage.

C-50 Average 2013 LNI increased in all counties. Overall: other than alfalfa and wheat in some counties, most yields increased. All prices increased, and the crop mix generally moved from wheat in all counties, except Barton, Marion, and Rice. Some counties decreased sorghum, soybean, and alfalfa acreage. However, Dickinson, Marion, and Saline increased their wheat acreage.

SC-60 Average 2013 LNI increased in all counties, except Harper. Overall: wheat yields decreased, except in Edwards. Most other yields increased, except for soybeans and alfalfa in Kingman, Sedgwick, and Stafford. All prices increased. Most counties crop mix did not change more than one percent for any crop, except Barber. There wheat acreage moved to sorghum.

NE-70 Average 2013 LNI increased in all counties. Overall: yields generally increased, except sorghum and alfalfa in some counties. Prices increased, and the crop mix primarily moved between soybeans and corn. Some counties decreased wheat and alfalfa acreage; Riley also decreased sorghum acres.

EC-80 Average 2013 LNI increased in all counties. Overall: most yields increased, except for wheat and sorghum in two counties and alfalfa in five. Soybean yield also decreased in Wabaunsee. All prices increased, and the crop mix generally moved from wheat and soybeans to corn; Geary and Morris also reduced sorghum acreage.

SE-90 Average 2013 LNI increased in all counties. Overall: yields increased, except for alfalfa, wheat, and soybeans in some counties; prices increased for all crops. The crop mix moved generally from soybeans in all counties and sorghum and wheat in some counties.

Pasture

NATIVE: Weighted average LNI for native pasture increased in six of the nine districts. Average annual LNI changes ranged from -1.72 to 3.97. Cash rent decreased in five of the nine districts, and was unchanged in WC-20; the largest change was a \$3.33 decrease in NE-70. Fence costs increased in five districts; watering costs were changed to \$0.60, a decrease of \$0.80 per acre.

TAME: Weighted average LNI for tame pasture decreased in one district, SE-90. Annual LNI changes ranged from 11.65 to -0.66. Cash rent increased in four districts, and decreased in NC-40 and SE-90; changes ranged from 3.62 to -2.07. Fence costs decreased in all districts. Watering costs were changed to \$0.60, a decrease of \$0.80 per acre.

Irrigated

Weighted average LNI for irrigated crop land increased in the three western districts. Weighted LNI changes ranged from -13.41 to 10.96. Average annual LNI increased in the three western districts. Changes ranged from -11.64 to 17.72. Most yields increased in all districts, except NC-40. Corn yields decreased in the three central districts, and sorghum decreased in NC-40. Prices increased statewide for all crops. In the western third of the state, the crop mix moved from wheat to corn or soybeans. For the remaining districts, the crop mix moved away from wheat, sorghum, and corn to soybeans. Expenses decreased in all districts.

Agricultural Land Base Value Comparison 2015-2016

District	County	Land Use	% Acres		% Acres	2015	2016	Overall %	Weighted
			in	Well	for Well	Wt Avg	Wt Avg	Change	%
			County	Depth	Depth	Value (11.00)	Value (11.00)	2015 to 2016	Change
North Central	Clay	Native Grass	36%			\$60	\$69	14%	
		Tame Grass	2%			\$96	\$99	3%	
		Dry Land	58%			\$313	\$362	16%	
		Irrigated Land	4%	100	100.0%	\$585	\$656	12%	15%
	Cloud	Native Grass	33%			\$49	\$64	29%	
		Tame Grass	3%			\$63	\$67	6%	
		Dry Land	60%			\$278	\$315	13%	
		Irrigated Land	5%	100	82.3%	\$561	\$631	12%	18%
	Jewell	Native Grass	35%			\$26	\$31	21%	
		Tame Grass	2%			\$26	\$31	21%	
		Dry Land	61%			\$283	\$325	15%	
		Irrigated Land	2%	100	100.0%	\$585	\$652	11%	17%
	Mitchell	Native Grass	27%			\$27	\$33	21%	
		Tame Grass	0%			\$27	\$33	21%	
		Dry Land	72%			\$259	\$289	12%	
		Irrigated Land	2%	100	100.0%	\$612	\$682	11%	14%
	Osborne	Native Grass	47%			\$21	\$27	33%	
		Tame Grass	0%			\$21	\$27	33%	
		Dry Land	51%			\$104	\$119	14%	
		Irrigated Land	2%	100	100.0%	\$620	\$696	12%	23%
	Ottawa	Native Grass	44%			\$58	\$66	13%	
		Tame Grass	1%			\$92	\$94	3%	
		Dry Land	54%			\$266	\$285	7%	
		Irrigated Land	1%	100	74.1%	\$617	\$685	11%	10%
	Phillips	Native Grass	47%			\$28	\$35	26%	
		Tame Grass	0%			\$28	\$35	26%	
		Dry Land	52%			\$188	\$216	15%	
		Irrigated Land	1%	100	100.0%	\$601	\$671	12%	20%
Republic	Republic	Native Grass	24%			\$57	\$65	14%	
		Tame Grass	0%			\$59	\$65	11%	
		Dry Land	71%			\$316	\$360	14%	
		Irrigated Land	5%	100	83.0%	\$559	\$621	11%	14%
	Rooks	Native Grass	46%			\$24	\$31	31%	
		Tame Grass	0%			\$24	\$31	31%	
		Dry Land	53%			\$143	\$174	22%	
		Irrigated Land	0%	100	100.0%	\$645	\$724	12%	26%
	Smith	Native Grass	40%			\$25	\$32	25%	
		Tame Grass	0%			\$25	\$32	25%	
		Dry Land	58%			\$229	\$267	17%	
		Irrigated Land	2%	100	100.0%	\$587	\$649	11%	20%
	Washington	Native Grass	42%			\$57	\$65	14%	
		Tame Grass	2%			\$97	\$100	3%	
		Dry Land	55%			\$315	\$367	17%	
		Irrigated Land	1%	100	69.4%	\$579	\$648	12%	15%

