

# ANSWERS

TO COMMONLY ASKED QUESTIONS ABOUT  
AGRICULTURAL LAND VALUE  
IN KANSAS

By  
The Ag Use Section  
Property Valuation Division (PVD)  
Kansas Department of Revenue

February 28, 2017

## **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.

## Agricultural Land Base Value Comparison 2016 - 2017

District	County	Land Use	% Acres		2016 Wt Avg Value (11.00)	2017 Wt Avg Value (11.00)	Overall % Change 2016 to 2017	Weighted % Change
			in County	Well Depth				
North Central	Clay	Native Grass	36%		\$69	\$73	7%	
		Tame Grass	2%		\$99	\$100	1%	
		Dry Land	58%		\$361	\$422	17%	
		Irrigated Land	4%	100	100.0%	\$656	\$752	15%
	Cloud	Native Grass	38%		\$64	\$72	13%	
		Tame Grass	3%		\$67	\$72	7%	
		Dry Land	54%		\$313	\$359	15%	
		Irrigated Land	6%	100	82.3%	\$631	\$717	14%
	Jewell	Native Grass	35%		\$31	\$38	22%	
		Tame Grass	2%		\$31	\$38	22%	
		Dry Land	61%		\$323	\$377	17%	
		Irrigated Land	2%	100	100.0%	\$652	\$747	15%
	Mitchell	Native Grass	27%		\$33	\$40	21%	
		Tame Grass	0%		\$33	\$40	21%	
		Dry Land	72%		\$288	\$329	14%	
		Irrigated Land	2%	100	100.0%	\$682	\$779	14%
	Osborne	Native Grass	47%		\$27	\$34	25%	
		Tame Grass	0%		\$27	\$34	25%	
		Dry Land	51%		\$118	\$136	15%	
		Irrigated Land	2%	100	100.0%	\$696	\$796	14%
	Ottawa	Native Grass	45%		\$66	\$74	12%	
		Tame Grass	2%		\$67	\$74	10%	
		Dry Land	52%		\$284	\$321	13%	
		Irrigated Land	1%	100	74.1%	\$685	\$783	14%
	Phillips	Native Grass	51%		\$35	\$42	20%	
		Tame Grass	0%		\$35	\$42	20%	
		Dry Land	47%		\$214	\$252	18%	
		Irrigated Land	1%	100	100.0%	\$671	\$767	14%
	Republic	Native Grass	27%		\$65	\$74	14%	
		Tame Grass	3%		\$65	\$74	14%	
		Dry Land	55%		\$359	\$417	16%	
		Irrigated Land	15%	100	83.0%	\$621	\$696	12%
	Rooks	Native Grass	47%		\$31	\$39	23%	
		Tame Grass	0%		\$31	\$39	23%	
		Dry Land	53%		\$171	\$200	17%	
		Irrigated Land	0%	100	100.0%	\$724	\$824	14%
	Smith	Native Grass	40%		\$32	\$38	20%	
		Tame Grass	0%		\$32	\$38	20%	
		Dry Land	58%		\$265	\$311	17%	
		Irrigated Land	2%	100	100.0%	\$649	\$738	14%
	Washington	Native Grass	42%		\$65	\$73	12%	
		Tame Grass	3%		\$100	\$101	0%	
		Dry Land	53%		\$366	\$429	17%	
		Irrigated Land	2%	100	69.4%	\$648	\$741	14%