

Coconino County, AZ

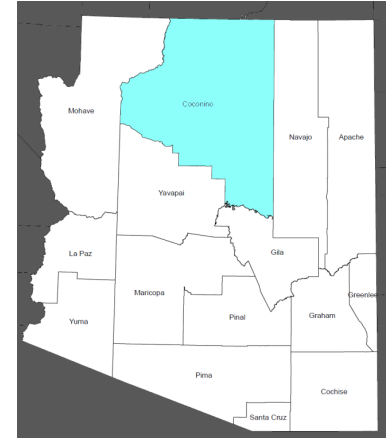
Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Coconino County is located in northern Arizona bordered to the north by Utah. With more than 18,600 square miles, Coconino is the second-largest county in the contiguous U.S. and includes land within tribal areas of the Havasupai, Hopi, Hualapai, Kaibab Paiute, and the Navajo Nation. Flagstaff is the county's largest population center and home of Northern Arizona University.

Home to the Grand Canyon, tourism and related industries are top economic activities. Agriculture accounts for less than 1% of all private employment and less than 0.5% of county GDP.

Nonetheless, agriculture plays an important role in land management, with more than 50% of Coconino County land area in farms. Agricultural production in Coconino County is heavily influenced by tribal agriculture, both as a share of total farms, and in terms of top commodities produced. Coconino County accounts for approximately 1% of Arizona's total agricultural cash receipts.



Map of Coconino County, Arizona

Indicator	Coconino County	Arizona
Land Area (square miles)	18,661	113,990
Land in Farms (Crops, Grazing) (square miles)	9,592	40,822
Population (2018)	142,854	7,171,646
Annual Average Population Growth Rate (2010-18)	0.7%	1.4%
Percent of Population Over 65 (2018)	12.5%	17.5%
Percent Population Rural (2010)	31.5%	10.2%
Total Employment (2018)	62,682	2,826,095
Share Federal, State, & Local Government Employment (2018)	24.6%	13.8%
GDP (2018)	\$7.7 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$36.8 million	\$2.3 billion

Industry	Location Quotient
Nature parks and other similar institutions	20.65
Marinas	19.69
Scenic and sightseeing transportation, land	15.01
Tour operators	14.13
Recreational goods rental	12.61
Rv parks and campgrounds	9.56
Hotels and motels, except casino hotels	7.14
Bed-and-breakfast inns	6.43
Zoos and botanical gardens	5.33
All other traveler accommodation	5.23

Top 10 Private Industries in Coconino County by Employment LQ

An economy can be characterized by the industries that make up the “base” of the economy. A common way to measure this is with location quotients (LQs), which are the ratio of a particular industry's share of employment within a region to the same industry's share of national employment. An industry with a LQ greater than 1.25 is considered part of the economic base, exporting goods and services and bringing money into the region. LQs also help identify industries that are areas of specialization in a region. Higher LQs indicate greater specialization. Top-ranked industries in terms of employment concentration include many outdoor recreation and tourism-related industries. Of the top 10 most concentrated industries in Coconino County, none are related to agriculture. While there are many farms in Coconino County, many do not employ individuals besides the farm proprietors.

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Every 5 years, U.S. Department of Agriculture releases the Census of Agriculture, which provides the most comprehensive source of information on agricultural production by county. The Census provides information on the number of farms, types of crops and livestock produced, and farm characteristics, among other information. A farm is defined as any establishment that produced and sold, or could have sold, more than \$1,000 or more of agricultural products in the Census year. The following information comes from the most recent 2017 Census of Agriculture.

Farms

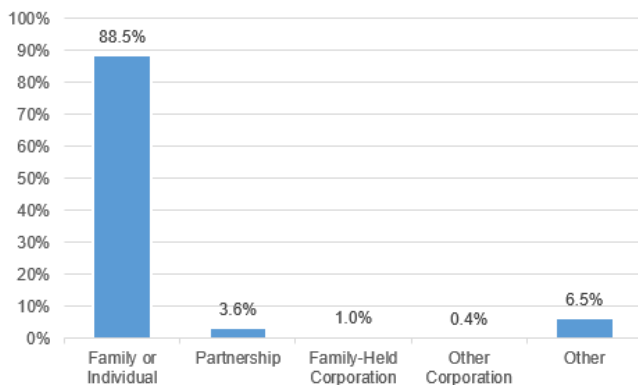
There were 2,142 farms in Coconino County in 2017, covering 716 acres of cropland and 6,048,049 acres of pastureland. Data on irrigated acreage is not disclosed to prevent identifying individual operations. The average farm size was 2,866 acres, significantly larger than the national average of 441 acres, with the top 10% of farms accounting for 99% of county acreage.

Of 2,142 farms, 1,351 had less than \$1,000 in sales and 7 farms had more than \$500,000 in sales. The vast majority (89%) of county farms were family- or individually-held farms, and only 0.4% of farms are non-family-held corporate farms.

Farms are classified by the type of agricultural products they produce. When a farm or ranch produces more than one agricultural product, they are classified by the product that constitutes more than 50% of their sales. The most common type of operation in Coconino County is beef cattle ranching and farming (873 farms), followed by sheep and goat farming (731 farms), and aquaculture and other animal production* (358 farms).

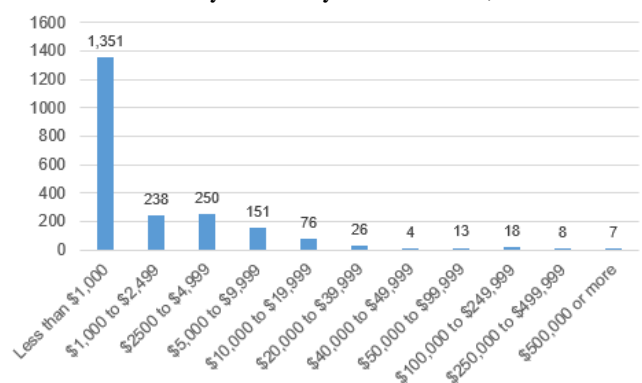
While the number of farms is helpful in understanding how many farms “specialize” in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).

Coconino County Farms by Legal Organization, 2017



Source: USDA

Coconino County Farms by Annual Sales, 2017



Source: USDA

Coconino County Farms by Industry

Category	Farms
<i>Total farms</i>	2,142
Oilseed and grain farming	18
Vegetable and melon farming	97
Fruit and tree nut farming	4
Greenhouse, nursery, and floriculture production	16
Other crop farming	23
Cotton farming	0
Hay and all other crop farming	23
Beef cattle ranching and farming	873
Cattle feedlots	4
Dairy cattle and milk production	0
Hog and pig farming	18
Poultry and egg production	0
Sheep and goat farming	731
Aquaculture and other animal production*	358

* Includes farms where no single type of livestock accounts for more than 50% of sales.

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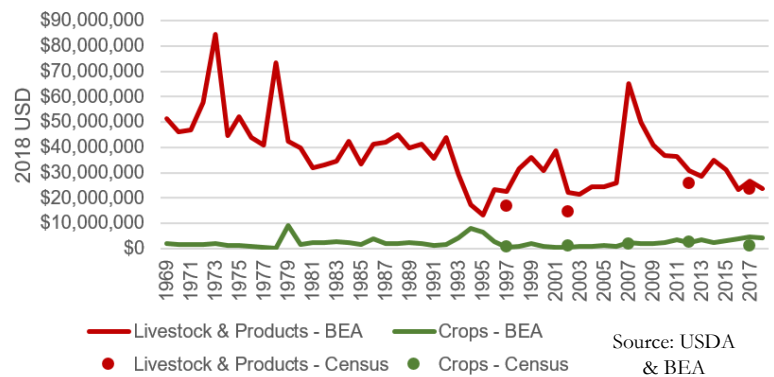
Production & Marketing

Coconino County is a heavily livestock-dominant county, with 96% of county cash receipts originating from sales of livestock and only 4% from sales of crops.

According to the 2017 Census of Agriculture, top agricultural commodities by sales are **cattle and calves** (\$20.2 million) and **sheep, goats, wool, mohair, and milk** (\$1.7 million). **Vegetables, melons, potatoes, and sweet potatoes** (\$721,000) are the top crops produced, accounting for nearly 75% of Coconino County crop sales.

Local marketing represents just over 1% of county cash receipts. Two farms reported sales of organic production.

Coconino County Agricultural Cash Receipts for Crops & Livestock, 1969 to 2018



Tribal Agriculture

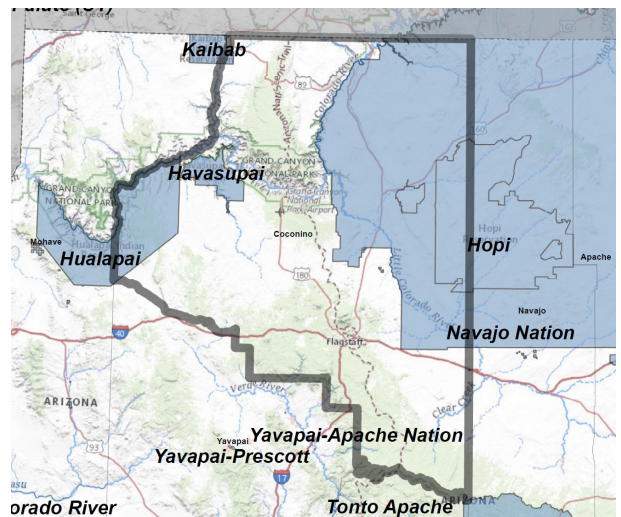
Coconino County contains land within tribal areas of the Havasupai, Hopi, Hualapai, Kaibab Paiute, and the Navajo Nation. Data on agricultural production within these tribal areas was reported for 4 of the 5 tribal areas, except the Havasupai. Agricultural production in these areas includes livestock production, in particular cattle and calves, sheep and lambs, horses, goats, as well as crop production, particularly traditional corn, vegetables, and hay. Statistics reported below represent production within entire tribal areas, therefore production occurring within Coconino County is only a portion of the totals reported.

Agriculture in Coconino County is heavily influenced by tribal agriculture. The county ranks in the top 10 U.S. counties for sales (both value and head sold) of angora goats. The county also ranks in the top 5% of U.S. counties for its inventory of horses and ponies, its sales of wool, and its sales and inventory of sheep.

Tribal agriculture also influences the profile of Coconino County agricultural producers. Within the Navajo Nation, 53% of producers are female, resulting in Coconino County being one of three counties in Arizona (with Apache and Navajo counties) with more female than male principal agricultural producers. In fact, because of these counties, Arizona has the highest share of female agricultural producers (49%) in the nation.

	<i>Hopi</i>	<i>Hualapai</i>	<i>Kaibab Paiute</i>	<i>Navajo Nation</i>
Farms	204	49	4	16,129
Cropland (total acres)	3,182	-	N.D.	212,465
Value of ag. products sold (\$1,000)	1,483	673	297	87,653
Producers	384	64	7	26,495
Top commodities	<ul style="list-style-type: none"> • Cattle & calves • Horses • Traditional corn • Dry beans • Vegetables 	<ul style="list-style-type: none"> • Cattle & calves 	<ul style="list-style-type: none"> • Cattle & calves 	<ul style="list-style-type: none"> • Cattle & calves • Sheep & lambs • Horses • Goats • Traditional corn • Hay • Vegetables

Coconino County Tribal Areas



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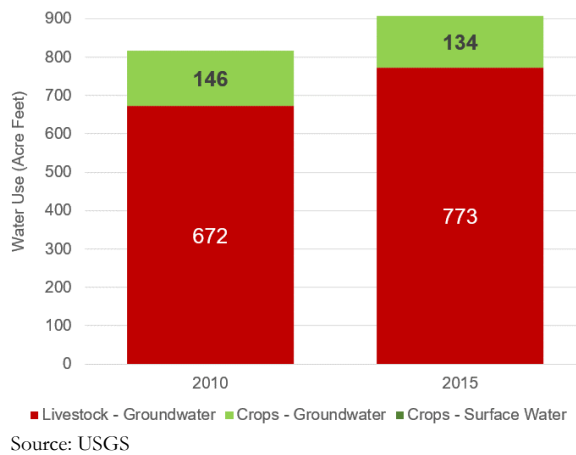
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Irrigation Water Use

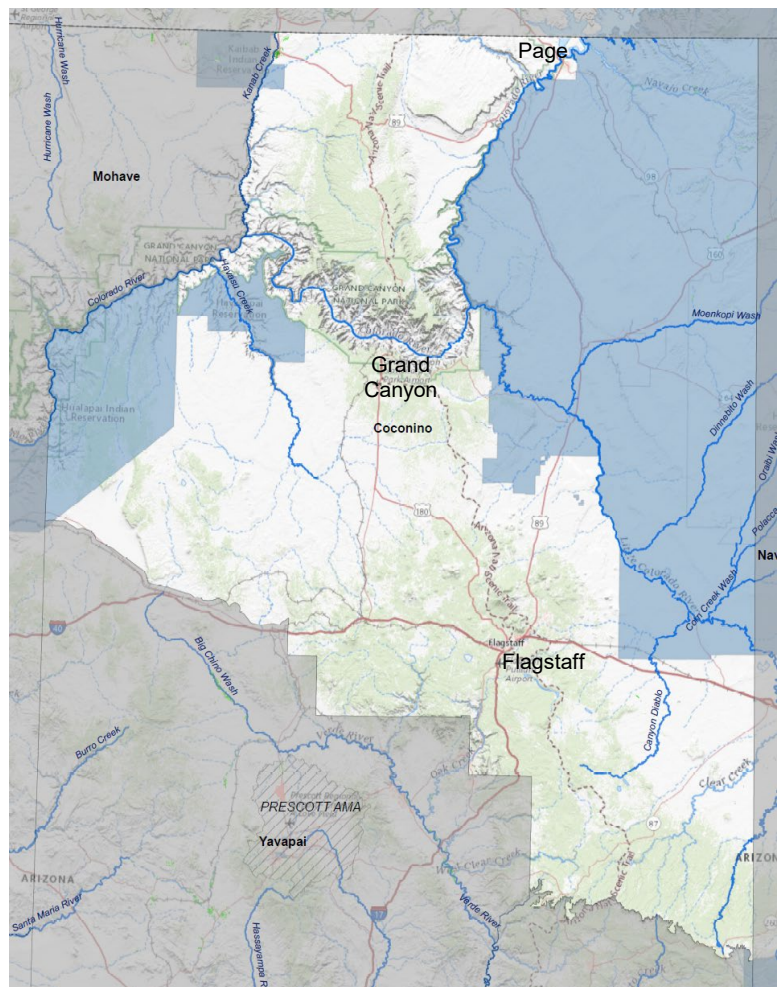
In Arizona, agriculture accounts for about 75% of the state’s water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management Act. This legislation established five Active Management Areas (AMA) as well as other Irrigation Non-Expansion Areas (INA) where groundwater pumping and expansion of irrigated agriculture are limited. There is no land in Coconino County within an AMA or INA.

Based on 2015 USGS estimates of water use, agriculture accounted for 2.1% of Coconino County water withdrawals. Agricultural water use in the county is small compared with demand for public supply and thermoelectric power generation. Agricultural irrigation water use in Coconino County is dominated by production of livestock. In 2015, an estimated 907 acre-feet (AF) were sourced from groundwater for agricultural production, with 773 AF for livestock production. An acre-foot is the amount of water required to cover one acre one foot deep in water. Groundwater use increased between 2010 and 2015. Meanwhile, total irrigated acreage is estimated to have remained steady over the same period, with county acreage exclusively irrigated by sprinkler irrigation.

Coconino County Agricultural Water Use by Use & Source



Coconino County Water Map



Coconino County Irrigated Acres by Irrigation Technology

