

Cochise County, AZ

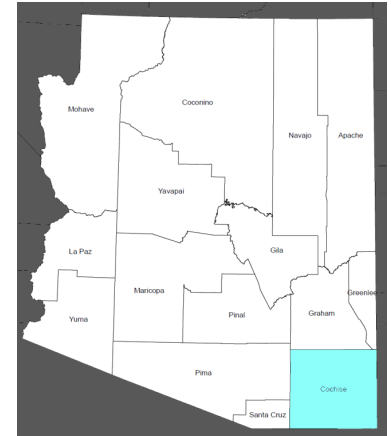
Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Cochise County is located in the southeastern corner of Arizona bordered to the east by New Mexico and to the south by Mexico. As of 2018 the population was nearly 127,000 with more than one-third of the county's population residing in rural areas. Major population centers include Sierra Vista, Douglas, Bisbee, Benson, and Willcox.

Historically a mining region, today top industries in Cochise County include government, tourism, and agriculture. The county is home to Fort Huachuca, an Army installation, and a rapidly growing tree nut and winery industry, supporting agritourism in the region.

Although on-farm agriculture accounts for less than 1% of the county's GDP, it employs approximately 4% of all private industry jobs, higher than the national and state averages. Agriculture also plays an important role in land management, with more than 1,500 square miles or one-quarter of Cochise County's land area in farms. Cochise County accounts for about 4% of Arizona's state agricultural cash receipts.



Map of Cochise County, Arizona

Indicator	Cochise County	Arizona
Land Area (square miles)	6,219	113,990
Land in Farms (Crops, Grazing) (square miles)	1,521	40,822
Population (2018)	126,770	7,171,646
Annual Average Population Growth Rate (2010-18)	-0.5%	1.4%
Percent of Population Over 65 (2018)	22.3%	17.5%
Percent Population Rural (2010)	36.3%	10.2%
Total Employment (2018)	33,994	2,826,095
Share Federal, State, & Local Government Employment (2018)	31.8%	13.8%
GDP (2018)	\$4.9 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$40.3 million	\$2.3 billion

Industry	Location Quotient
Tree nut farming	32.77
Water supply and irrigation systems	13.47
Hay farming	11.75
Farm labor contractors and crew leaders	10.93
Corn farming	9.46
Motor vehicle towing	4.49
Hardware stores	3.55
Residential framing contractors	3.23
Outpatient mental health centers	3.21
Wineries	3.11

Top 10 Private Industries in Cochise County by Employment LQ, 2018

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 a region's areas of specialization. Higher LQs indicate greater specialization. Of the top 10 most concentrated private industries in Cochise County, agricultural industries occupy the top five spots, including tree nut farming, water supply and irrigation systems, hay farming, farm labor contracting, and corn farming. For example, the share of employment in tree nut farming is nearly 33 times the national average. Wineries rank as the tenth highest employment location quotient at more than 3 times the national average.

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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

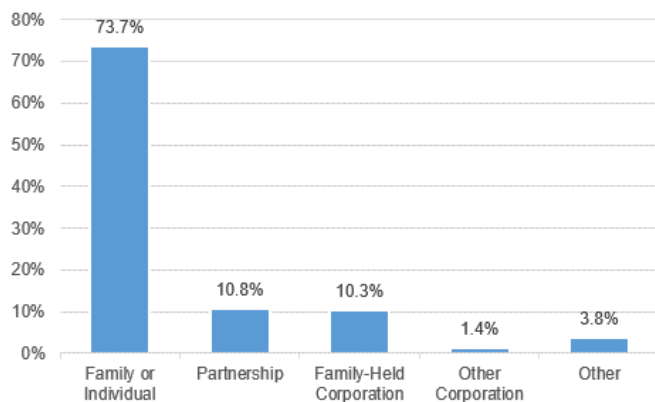
There were 1,083 farms in Cochise County in 2017, covering 87,417 acres of cropland (96% irrigated) and 829,598 acres of pastureland (<1% irrigated). The average farm size was 899 acres, larger than the national average of 441 acres, with the top 11% of farms accounting for 75% of county acreage.

Of 1,083 total farms, 372 had less than \$1,000 in sales and 59 farms had more than \$500,000 in sales. The majority of county farms in Cochise County were family- or individually-held (74%). Another 11% were partnerships and 10% were family-held corporations.

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 Cochise County is beef cattle ranching and farming (373 farms), followed by aquaculture and other animal production* (254 farms), and fruit and tree nut farming (176 farms).

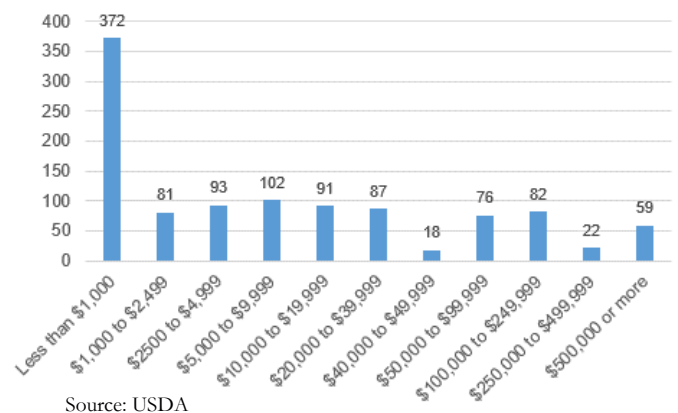
While the number of farms is helpful in understanding how many farms “specialize” in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).

Cochise County Farms by Legal Organization , 2017



Source: USDA

Cochise County Farms by Annual Sales , 2017



Source: USDA

Cochise County Farms by Industry

Category	Farms
<i>Total farms</i>	<i>1,083</i>
Oilseed and grain farming	12
Vegetable and melon farming	17
Fruit and tree nut farming	176
Greenhouse, nursery, and floriculture production	15
Other crop farming	116
Cotton farming	1
Hay and all other crop farming	115
Beef cattle ranching and farming	373
Cattle feedlots	3
Dairy cattle and milk production	14
Hog and pig farming	15
Poultry and egg production	35
Sheep and goat farming	53
Aquaculture and other animal production*	254

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

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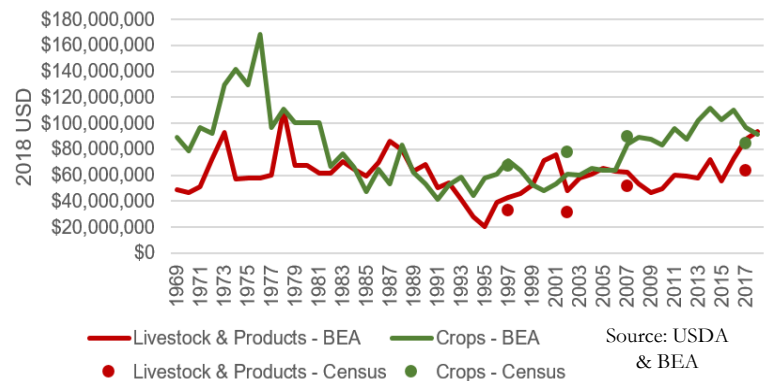
Production & Marketing

Cochise County is neither crop nor livestock dominant in terms of its agricultural production. As of 2017, 57% of county cash receipts originated from the sale of crops, and 43% from livestock.

According to the 2017 Census of Agriculture, major agricultural products by value of sales include **fruits, tree nuts, and berries** (\$31.5 million), **cattle and calves** (\$29.1 million), **grains, oilseeds, dry beans and dry peas** (\$24.4 million), and **other crops and hay** (\$19.6 million). In 2017, Cochise County ranked in the top 5% of counties nationally for its sales of **fruit and tree nuts** and **other field crops and hay**.

Local marketing represents just under 7% of county cash receipts, significantly higher than the national average of less than 1%. Additionally, there were 3 farms with reported sales of organic production.

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



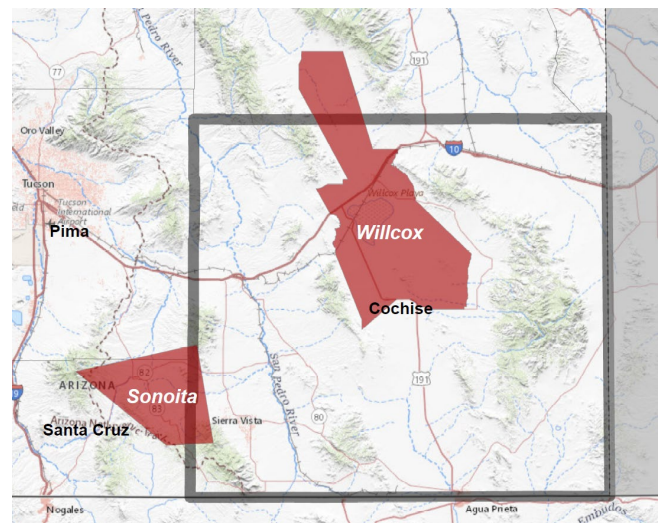
Growing Agricultural Industries in Cochise County

Cochise County is a center for fruit and tree nut production. This is particularly the case for pecans, pistachios, and wine grapes.

The county is home to two American Viticultural Areas (AVAs), areas that have been designated and recognized as wine grape-growing regions. Both the Willcox and Sonoita AVAs are located partially in Cochise County. As of 2017, Cochise County had 757 acres of grape production, accounting for roughly half of the state's total acreage, with 49 farms growing grapes.

Additionally, as of 2017, there were 140 farms producing tree nuts in Cochise County with 21,919 acres. These farms produce pecans and pistachios. In fact, almost all of Arizona's production of pistachios comes from Cochise County. Of total tree nut acreage in the county, 11,146 were bearing acres and 10,772 were non-bearing, highlighting heavy investment in new planting and continued growth of the industry. In fact, land in orchards in Cochise County grew from 9,944 acres to 22,762 acres between 2012 and 2017.

American Viticultural Areas (AVAs) in Cochise County



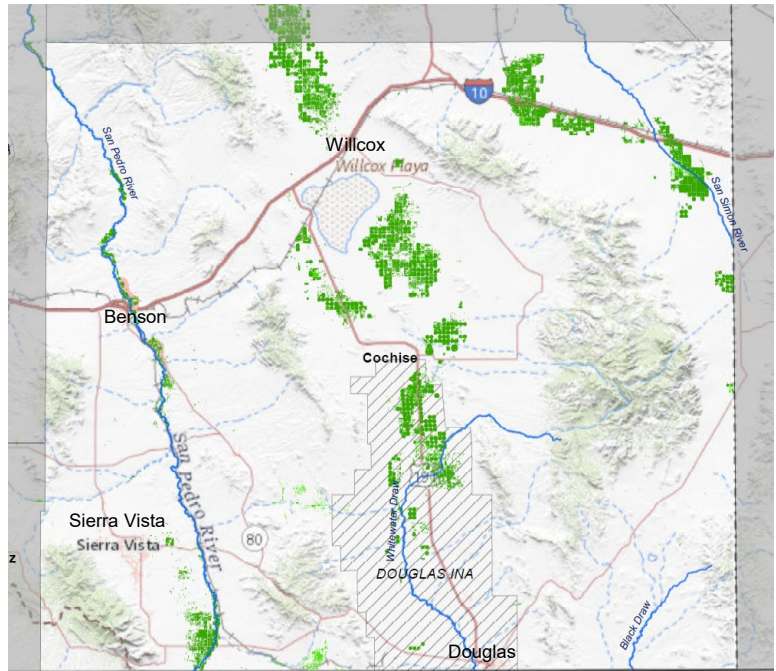
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Irrigation Water Use

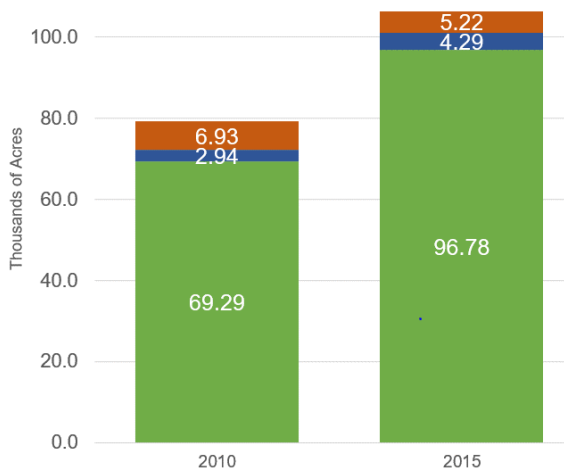
In Arizona, agriculture accounts for about 75% of the state's water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management 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 Cochise County within an AMA, however, it does contain the Douglas INA, which accounts for 8.9% of county land area.

Based on 2015 USGS estimates of water use, agriculture accounted for 90.0% of Cochise County water withdrawals. Irrigated crop production is located throughout Cochise County, though most is located in the greater Willcox area and Sulfur Springs Valley, as well as near both Bowie and San Simon. Agricultural irrigation water use in Cochise County is dominated by production of crops, with irrigation water exclusively sourced from groundwater. In 2015, an estimated 242,870 acre-feet (AF) was sourced from groundwater for agricultural production. An acre-foot is the amount of water required to cover one acre one foot deep in water. Groundwater use increased slightly between 2010 and 2015. Meanwhile, total irrigated acreage increased by over 20,000 acres over the same time, reflecting large increases in tree nut acreage. Irrigation in Cochise County is heavily dominated by sprinkler irrigation.

Cochise County Water Map

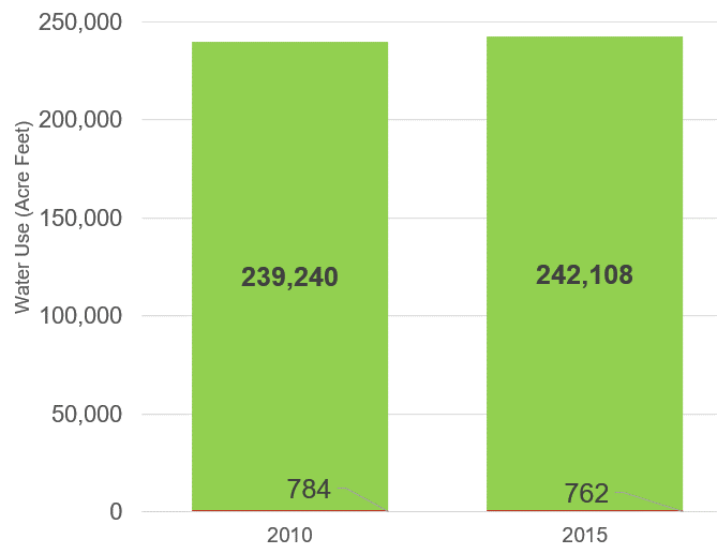


Cochise County Irrigated Acres by Irrigation Technology



Source: USGS

Cochise County Agricultural Water Use by Use & Source



■ Livestock - Groundwater ■ Crops - Groundwater ■ Crops - Surface Water

Source: USGS