

Pima County, AZ

Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Pima County is located in southern Arizona bordered to the north by Pinal and Maricopa counties, to the east by Cochise County, and to the south by Mexico and Santa Cruz County. Pima is an urban county, ranking as the second most populous county in Arizona, with more than 1 million residents and only 7.5% of its population living in rural areas. A majority of the county's population resides in Tucson, Arizona's second largest city.

Top industries in Pima County include higher education, healthcare, and aerospace and defense. On-farm agriculture accounts for approximately 0.2% of private employment in Pima County and directly contributes \$64.5 million to the county's \$44.9 billion economy. While agriculture does not account for a large share of county GDP or county employment, nearly 45% of Pima County's land area is in farms, either for crop production or grazing. Pima County accounts for about 2% of Arizona's total agricultural cash receipts.



Map of Pima County, Arizona

Indicator	Pima County	Arizona
Land Area (square miles)	9,189	113,990
Land in Farms (Crops, Grazing) (square miles)	4,090	40,822
Population (2018)	1,039,073	7,171,646
Annual Average Population Growth Rate (2010-18)	0.7%	1.4%
Percent of Population Over 65 (2018)	19.8%	17.5%
Percent Population Rural (2010)	7.5%	10.2%
Total Employment (2018)	368,438	2,826,095
Share Federal, State, & Local Government Employment (2018)	18.8%	13.8%
GDP (2018)	\$44.9 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$64.5 million	\$2.3 billion

Industry	Location Quotient
Research and development in nanotechnology	36.44
Support activities for metal mining	10.11
Telemarketing and other contact centers	7.72
Professional employer organizations	6.84
Other support activities for air transport.	4.61
Freestanding emergency medical centers	4.61
Other technical and trade schools	4.47
Book stores	3.91
Other automotive mechanical and elec. repair	3.53
Automotive glass replacement shops	3.34

Top 10 Private Industries in Pima 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). LQs 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.

Due to the size of Pima County's economy, which is dominated by economic activity in the metro Tucson area, agricultural industries do not rank within the top 10 industries by employment LQ.

Pima County, AZ

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 place that produced and sold, or would 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

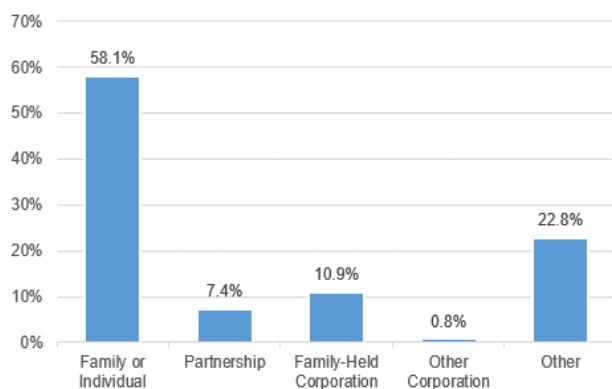
There were 661 farms in Pima County in 2017, covering 29,192 acres of cropland (99% irrigated) and 2,553,726 acres of pastureland (<1% irrigated). The average farm size was 3,960 acres, significantly larger than the national average of 441 acres, with the top 5% of farms accounting for 98% of county acreage.

Of 661 total farms, 324 had less than \$1,000 in sales and 20 farms had more than \$500,000 in sales. The majority of county farms are individually- or family-held (58%), 23% have other forms of legal organization, and 11% are 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 Pima County is aquaculture and other animal production*, reflecting domestic animal breeders in the Tucson metropolitan area.

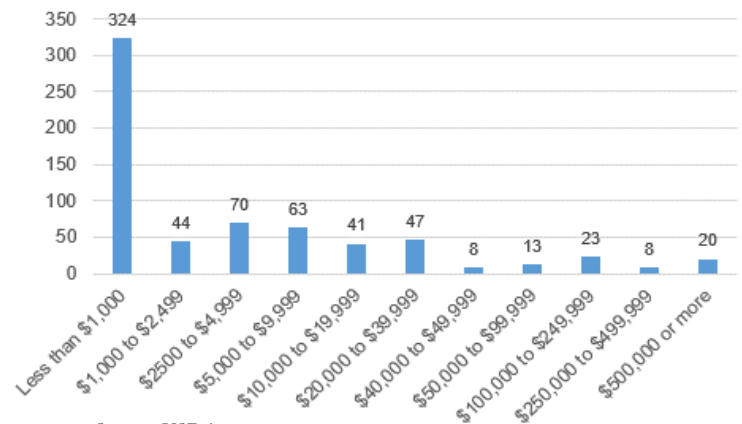
While the number of farms is helpful in understanding how many farms “specialize” in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).

Pima County Farms by Legal Organization, 2017



Source: USDA

Pima County Farms by Annual Sales, 2017



Source: USDA

Pima County Farms by Industry

Category	Farms
<i>Total farms</i>	<i>661</i>
Oilseed and grain farming	2
Vegetable and melon farming	32
Fruit and tree nut farming	23
Greenhouse, nursery, and floriculture production	29
Other crop farming	27
Cotton farming	11
Hay and all other crop farming	16
Beef cattle ranching and farming	217
Cattle feedlots	0
Dairy cattle and milk production	0
Hog and pig farming	16
Poultry and egg production	14
Sheep and goat farming	32
Aquaculture and other animal production*	269

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

Pima County, AZ

Production & Marketing

Pima County is a crop-dominant county, with 84% of county cash receipts originating from sales of crops, and 16% from livestock.

According to the 2017 Census of Agriculture, major agricultural commodities in Pima County by sales include **nursery, greenhouse, floriculture, and sod** (\$14.6 million), **cotton and cottonseed** (\$10.6 million), and **cattle and calves** (\$8.3 million). **Fruits, tree nuts, and berries** are also a major commodity in Pima County, ranking it third in sales for the state, but the value of sales is not disclosed to protect the identity of individual operations.

Similar to the national average, local marketing represents less than 1% of county cash receipts. Additionally, there were 3 farms with reported sales of organic production.

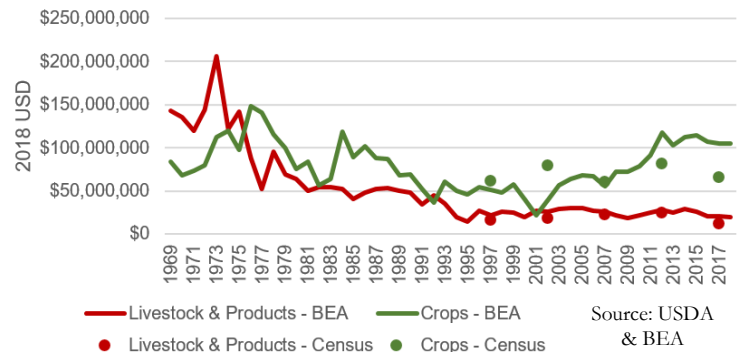
Tribal Agriculture

Pima County contains portions of the Tohono O'odham Nation and the Pascua Yaqui Pueblo. Statistics reported below represent production within entire tribal areas, therefore production occurring within Pima County is only a portion of the totals reported.

According to the 2017 Census of Agriculture, 164 farms operated on the Tohono O'odham Nation in 2017 with 2.6 million acres in farms, 8,603 acres of which were in crops. These farms generated \$8.1 million in total sales in 2017. The most common type of operation was farms producing cattle and calves, followed by those producing horses.

Production by the Pascua Yaqui Pueblo was not reported in the 2017 Census of Agriculture.

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

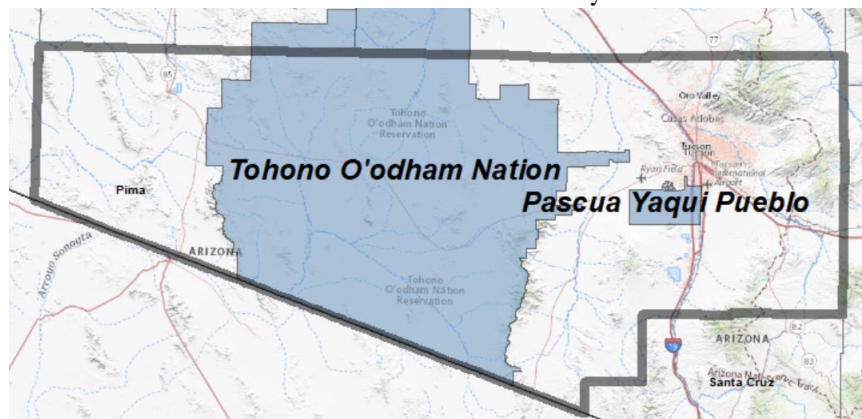


Specialty Ag Production

Sales of **nursery, greenhouse, floriculture, and sod** in Pima County rank the county third in the state and in the top 7% of U.S. counties producing these agricultural products.

In 2017, Pima County had 7 operations with 95,000 square feet of greenhouse vegetables and fresh cut herbs under glass or other protection. This includes greenhouse tomatoes as well as other types of fresh vegetables and herbs.

Tribal Areas in Pima County



Pima County, AZ

Arizona County Agricultural Economy Profiles
University of Arizona Cooperative Extension

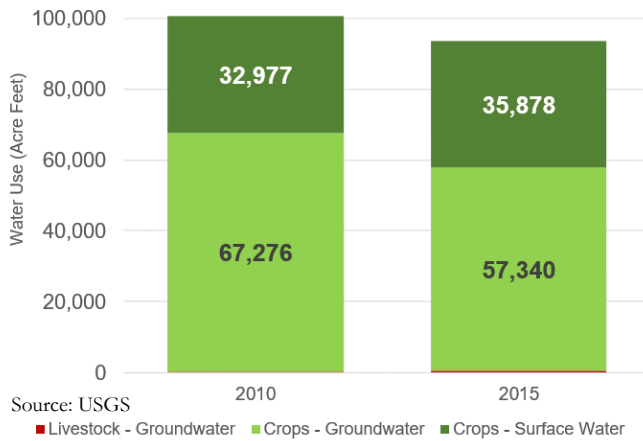
Irrigation Water Use

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.

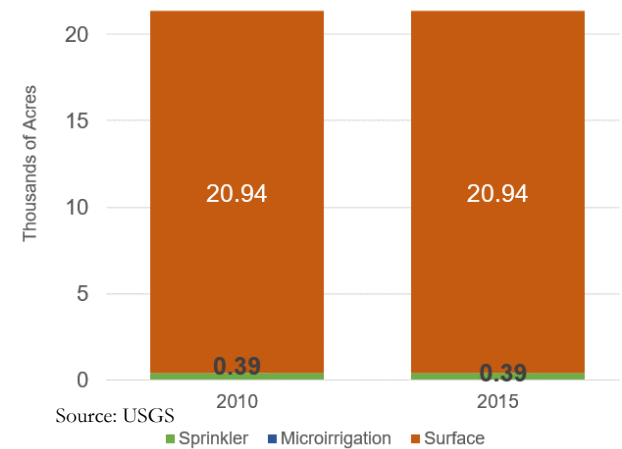
Pima County has land in three AMAs: 33.1% of county land area in the Tucson AMA, 15.9% in the Pinal AMA, and 1.6% in the Santa Cruz AMA. AMA-level water demand data from the Arizona Department of Water Resources shows that water demand in the Tucson AMA has increased slightly between 1985 and 2017, and agriculture's share of total demand has decreased modestly, from just under 42% in 1985 to 33% in 2017.

Based on 2015 USGS estimates of water use, agriculture accounted for 27.9% of Pima County water withdrawals. Agricultural irrigation water use in Pima County is dominated by production of crops, with the majority of irrigation water coming from groundwater. Water source is split between groundwater (57,799 acre-feet (AF)) and surface water (35,878 AF). An acre-foot is the amount of water required to cover one acre one foot deep in water. Irrigated crop production is concentrated along the Santa Cruz River. Groundwater use decreased slightly between 2010 and 2015 and surface water use increased slightly, while irrigated acreage remained unchanged, heavily dominated by gravity-flow irrigation.

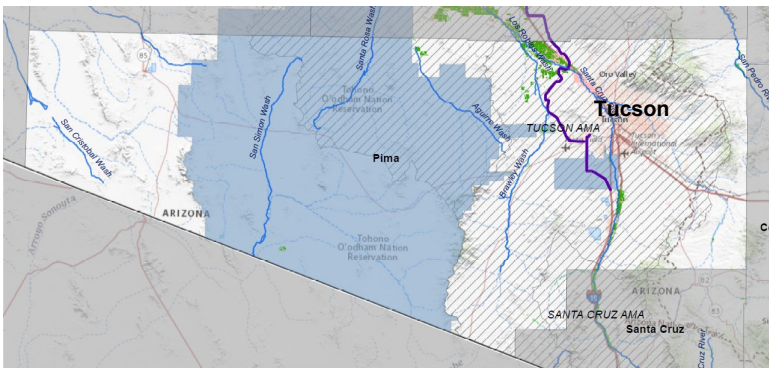
Pima County Agricultural Water Use by Use and Source



Pima County Irrigated Acres by Irrigation Technology



Pima County Water Map



Tucson AMA Water Demand

