

Arizona County Agricultural Economy Profiles *University of Arizona Cooperative Extension*

Overview

Apache County, in Arizona's northeast corner, is part of the Four Corners region, where the states of Arizona, New Mexico, Utah, and Colorado meet. As of 2022, the county's population was approximately 11,197, all of which reside in areas considered as rural. Population centers in the county include Chinle, Fort Defiance, and Eagar-Springerville.

Employment in on-farm agriculture represents less than 1% of private industry jobs in Apache County, and accounts for approximately 0.43% of the county's GDP. While agriculture does not constitute a large part of the county's economy, it does play an important role in land management, with more than 77% of Apache County land area in farms. County agricultural production is heavily influenced by tribal agriculture in the Navajo Nation, the Zuni Reservation, and the Fort Apache Reservation, which constitute a majority of the county's land area. Apache County represents less than 1% of Arizona's total agricultural cash receipts but accounts for 22% of the state's total land in farms.



Map of Apache County, Arizona

Indicator	Apache County	Arizona
Land Area (square miles)	11,197	113,591
Land in Farms (Crops, Grazing) (square miles) (2022)	8,648	39,883
Population (2022)	65,432	7,359,197
Annual Average Population Growth Rate (2010-22)	-0.7%	1.2%
Percent of Population Over 65 (2022)	16.7%	18.8%
Percent Population Rural (2020)	100%	10.7%
Total Employment (2022)	16,677	3,075,427
Share Federal, State, & Local Government Employment (2022)	58.7%	13.5%
GDP (2022)	\$2.7 billion	\$475.7 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2022)	\$11.5 million	\$2.6 billion

Industry	Location Quotient
Gift, novelty, and souvenir retailers	8.76
Fuel dealers	4.52
Postal service	3.49
Elementary and secondary schools	2.96
Home health care services	2.57
Beef cattle ranching and farming	1.99
All other general merchandise retailers	1.88
Water supply and irrigation systems	1.30
Lessors of residential buildings and dwellings	0.94
Services for the elderly and persons with disabilities	0.88

Top 10 Private Industries in Apache County by Employment LQ, 2022

An economy can be characterized by the industries that make up its "base". A common way to measure this is with location quotients (LQs), 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 Apache County, two are agriculture-related: beef cattle ranching and farming and water supply and irrigation systems. While there are many farms in Apache County, many do not employ individuals besides the farm proprietors.





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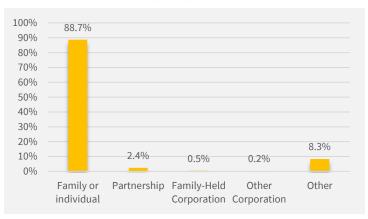
Every 5 years, U.S. Department of Agriculture releases the Census of Agriculture, the most comprehensive source of information on agricultural production by county. The Census provides information on the number of farms, types of crops and livestock produced, and farm characteristics, among other information. A farm is defined as any establishment that produced and sold, or could have sold, \$1,000 or more of agricultural products in the Census year. The following information comes from the most recent 2022 Census of Agriculture.

Farms

There were 5,343 farms in Apache County in 2022, covering 37,526 acres of cropland (99% of harvested cropland irrigated) and 5.5 million acres of pastureland (less than 1% irrigated). The average farm size was 1,036 acres, smaller than the state average of 1,528 acres, and the top 2% of farms account for nearly 96% of county acreage. Of 5,343 farms, 4,340 had less than \$2,500 in sales and 19 farms had more than \$100,000 in sales. The vast majority (89%) of county farms are family- or individually-held, and only 0.2% of farms were non-family-held corporate farms.

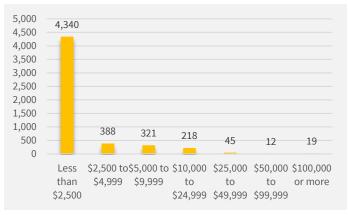
Farms are classified by the type of agricultural products they produce. When a farm or ranch produces more than one agricultural product, they are classified by the product that constitutes more than 50% of their sales. The most common type of operation in Apache County is sheep and goat farming (2,550 farms), followed by beef cattle ranching and farming (1,370 farms), and aquaculture and other animal production (661 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).

Apache County Farms by Legal Organization, 2022



Source: USDA

Apache County Farms by Annual Sales, 2022



Source: USDA

Apache County Farms by Industry, 2022

Category	Farms
Total farms	5,343
Oilseed and grain farming	92
Vegetable and melon farming	330
Fruit and tree nut farming	4
Greenhouse, nursery, and floriculture production	2
Other crop farming	293
Cotton farming	0
Sugarcane farming, hay farming, and all other crop farming	293
Beef cattle ranching and farming	1,370
Cattle feedlots	1
Dairy cattle and milk production	2
Hog and pig farming	12
Poultry and egg production	26
Sheep and goat farming	2,550
Aquaculture and other animal production	661

Source: USDA





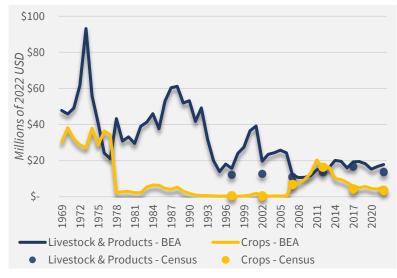


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Production & Marketing

In recent years, agricultural production in Apache County has been livestock-dominant, with an estimated 80% of county cash receipts originating from sales of livestock and livestock products. The county ranked first nationally in terms of its production of traditional or Indian corn with over 570,000 pounds of production in 2022. It also ranked in the top 5 counties nationally in its sales of Angora goats, as measured by heads sold. The county's combined sales of sheep and goats and their products totaled \$1.7 million in 2022. Though not a top-ranked county nationally, Apache County's greatest sales by commodity came from cattle and calves, at \$10.5 million in 2022. Following cattle, total vegetable sales were an estimated \$2.2 million in 2022.

Apache County Agricultural Cash Receipts, Crops & Livestock, 1969-2022



Source: USDA & BEA

Apache County Tribal Areas



Tribal Agriculture

Apache County contains portions of the Navajo Nation, the Fort Apache Reservation, and non-contiguous portions of the Zuni Reservation. Of these three tribal areas, the 2017 Census of Agriculture reports only on the Navajo Nation. The Navajo Nation spans portions of Arizona, New Mexico, and Utah, therefore statistics reported below represent production beyond just Apache County.

The Navajo Nation, in its entirety, had 16,129 farms with \$87.7 million in sales of agricultural products in 2017, of which \$69.4 million was crops and \$18.3 million was livestock and livestock products. There were 6,126 farms with cattle and calf inventories (2,447 of which had sales of cattle and calves) and 10,172 farms with sheep and lamb inventories (2,093 of which had sales of sheep and lambs). 1,977 farms grew traditional corn on 4,977 acres, 1,234 farms grew vegetables and melons on 8,394 acres, and 482 farms grew hay and forage on 30,010 acres.

Agriculture in Apache County is heavily influenced by tribal agriculture, both as a share of total farms, and in terms of top commodities produced. Sheep and goat farms are the most common type of operation in Apache County. Tribal agriculture also influences the profile of Apache County agricultural producers. Within the Navajo Nation, 53% of producers are female, and the three Arizona counties that include Navajo Nation lands (Apache, Coconino, and Navajo counties) are also the three counties with more female than male principal agricultural producers. In fact, driven in part by female producers in these counties, Arizona has the highest share of female agricultural producers (48%) in the nation.





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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 Apache County within an AMA or INA.

Based on 2015 USGS estimates of water use, agriculture accounted for 13% of Apache County water withdrawals. Within the county, thermoelectric power generation represents the largest share of water demand, at over 60%. Agricultural irrigation water use in Apache County is dominated by production of crops, with the majority of irrigation water sourced from surface water. Surface water used for agriculture in the county was estimated at 2,050 acre-feet (AF) in 2015 and an estimated 930 AF was sourced from groundwater. An acre-foot is the amount of water required to cover one acre one foot deep in water.

For more information on water in Apache County, please visit the University of Arizona Water Resource Research Center county water factsheets by clicking here or scanning the QR code ->



Apache County Water Map



About Us

Extension Regional Economic Analysis Program

The Extension Regional Economic Analysis Program (EREAP) conducts applied research and economic analysis addressing economic development issues around Arizona. We work serving the needs of Cooperative Extension and its stakeholders, such as Arizona agricultural and agribusiness industries, natural resource users and organizations, and regional economic groups, to provide specialized analysis and targeted information. For more information or to contact us, please click here or scan the QR code to visit our site \rightarrow



