

Graham County, AZ

Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Graham County is located in eastern Arizona bordered to the north by the Black and San Carlos Rivers, to the south by Cochise County, to the east by Greenlee County, and to the west by Gila and Pinal counties. As of 2018 the population was just over 38,000 with more than 46% of the county's population residing in rural areas. Major population centers are concentrated in the eastern part of the county and include Safford, Pima, and Thatcher.

Top industries in Graham County include government, agriculture, and retail and service-industries. With much of eastern Arizona's population residing in rural areas, the cities and towns of Graham County serve as a primary source for household goods and services.

Agriculture plays an important role in Graham County. More than 40% of the county's land area is in farms, either crops or grazing. On-farm agriculture directly accounts for 2.9% of county GDP and more than 5% of all private industry jobs, higher than the national and state averages. Graham County accounts for about 2% of Arizona's total agricultural cash receipts.



Map of Graham County, Arizona

Indicator	Graham County	Arizona
Land Area (square miles)	4,641	113,990
Land in Farms (Crops, Grazing) (square miles)	2,016	40,822
Population (2018)	38,072	7,171,646
Annual Average Population Growth Rate (2010-18)	0.3%	1.4%
Percent of Population Over 65 (2018)	13.9%	17.5%
Percent Population Rural (2010)	46.4%	10.2%
Total Employment (2018)	9,148	2,826,095
Share Federal, State, & Local Government Employment (2018)	30.6%	13.8%
GDP (2018)	\$1.2 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$35.0 million*	\$2.3 billion

* Estimated using IMPLAN 2017 model

Industry	Location Quotient
Cotton farming	54.53
Residential flooring contractors	4.45
Cut stone and stone product manufacturing	3.82
New single-family general contractors	3.64
Food service contractors	2.79
Beef cattle ranching and farming	2.50
Offices of dentists	1.58
Supermarkets and other grocery stores	1.40
Offices of optometrists	1.29
All other general merchandise stores	1.24

Top 10 Private Industries in Graham 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.

Of the top 10 most concentrated industries in Graham County, cotton farming ranks first, with the share of employment in cotton farming 54 times the national average. Beef cattle ranching and farming ranks sixth at 2.5 times more concentrated than 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

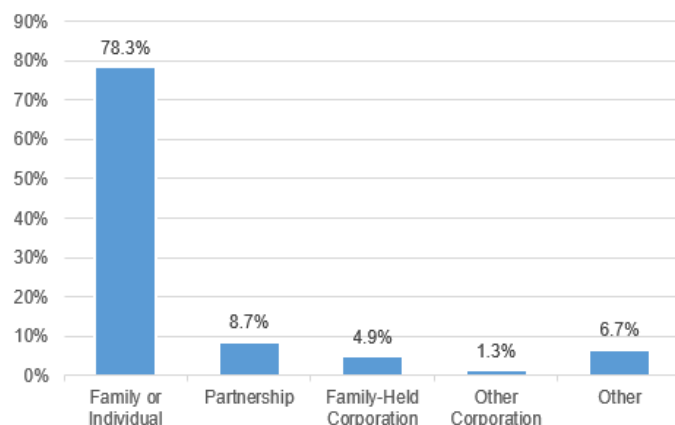
There were 448 farms in Graham County in 2017, covering 43,056 acres of cropland (98% irrigated) and 1,183,759 acres of pastureland (<1% irrigated). The average farm size was 2,880 acres, significantly larger than the national average of 441 acres, with the top 6% of farms accounting for 95% of county acreage.

Of 448 total farms, 198 had less than \$1,000 in sales and 26 had more than \$500,000 in sales. Over three-quarters of county farms are family- or individually-held farms, 9% are partnerships, 5% are family-held corporations, and 1% are non-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 Graham County is beef cattle ranching and farming (221 farms), followed by hay and other crop farming (66 farms).

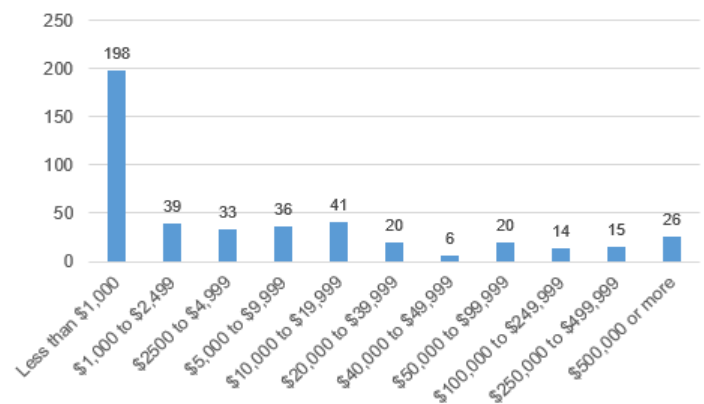
While the number of farms is helpful in understanding how many farms “specialize” in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).

Graham County Farms by Legal Organization, 2017



Source: USDA

Graham County Farms by Annual Sales, 2017



Source: USDA

Graham County Farms by Industry

Category	Farms
<i>Total farms</i>	448
Oilseed and grain farming	4
Vegetable and melon farming	5
Fruit and tree nut farming	44
Greenhouse, nursery, and floriculture production	2
Other crop farming	101
Cotton farming	35
Hay and all other crop farming	66
Beef cattle ranching and farming	221
Cattle feedlots	1
Dairy cattle and milk production	8
Hog and pig farming	4
Poultry and egg production	5
Sheep and goat farming	11
Aquaculture and other animal production*	42

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

Graham County, AZ

Production & Marketing

Though the most common type of farm in Graham County are beef cattle ranches, the county is crop-dominant, with 88% of county cash receipts originating from sales of crops, and 12% from livestock.

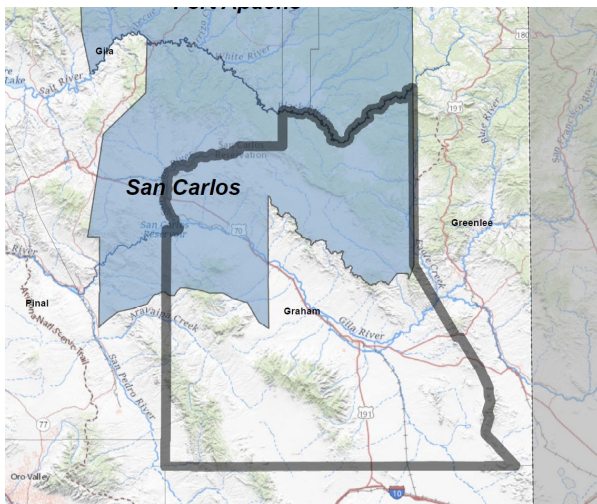
According to the 2017 Census of Agriculture, major agricultural commodities by sales include *cotton and cottonseed* (\$28.5 million), *grains, oilseeds, dry beans, and dry peas* (\$14.2 million) (particularly corn), *cattle and calves* (\$6.8 million), and *fruits, tree nuts, and berries* (sales data not disclosed to prevent identifying individual operations).

Similar to the national average, local marketing represents less than 1% of county cash receipts. There were 7 farms with reported sales of organic production.

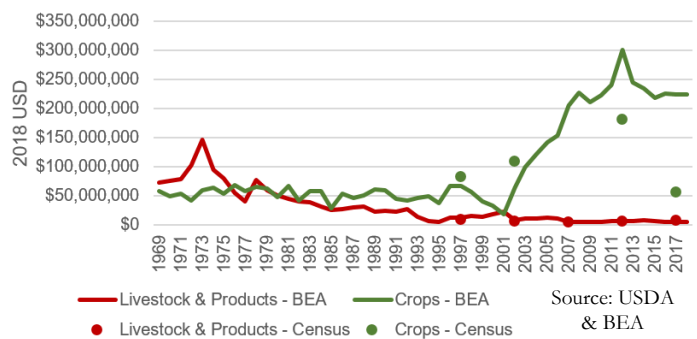
Tribal Agriculture

Graham County contains a portion of the San Carlos Apache Reservation. Statistics reported below represent production within entire tribal areas, therefore production occurring within Graham County is only a portion of the totals reported. A total of 198 farms operated on the San Carlos Apache reservation in 2017. Of these 198 farms, 187 were between 1 and 9 acres in size and 169 farms sold less than \$1,000 in agricultural products. Nearly all operations (193 farms) had inventory of cattle and calves, while only 66 farms sold cattle. Most cattle production within the San Carlos Apache Reservation is of beef cattle.

Tribal Areas in Graham County



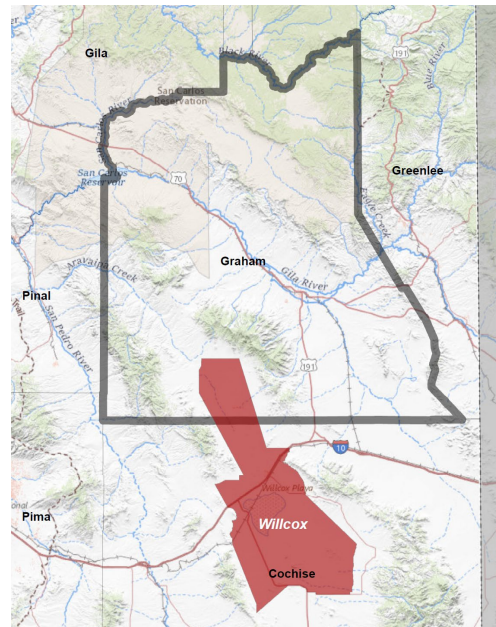
Graham County Agricultural Cash Receipts for Crops & Livestock, 1969 to 2018



Viticulture in Graham County

Like its neighbor Cochise County, Graham County has a growing wine industry. The southern part of Graham County is considered part of the Willcox American Viticultural Area (AVA), an area that has been designated and recognized as a wine grape-growing region. Between 2012 and 2017, there were 10 new farms producing grapes and, as of 2017, Graham County had 107 acres of grape production.

Willcox AVA Map



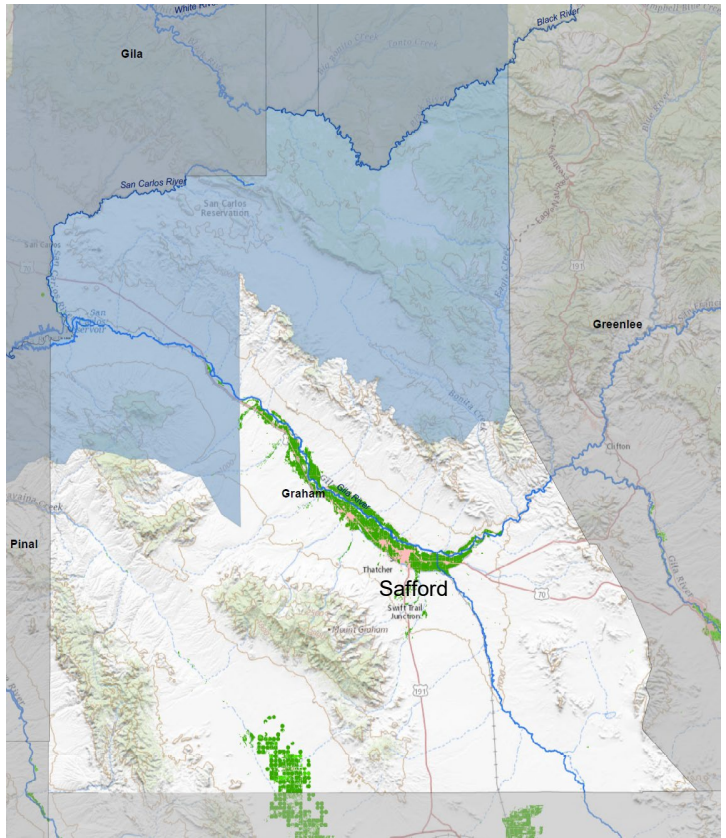
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Irrigation Water Use

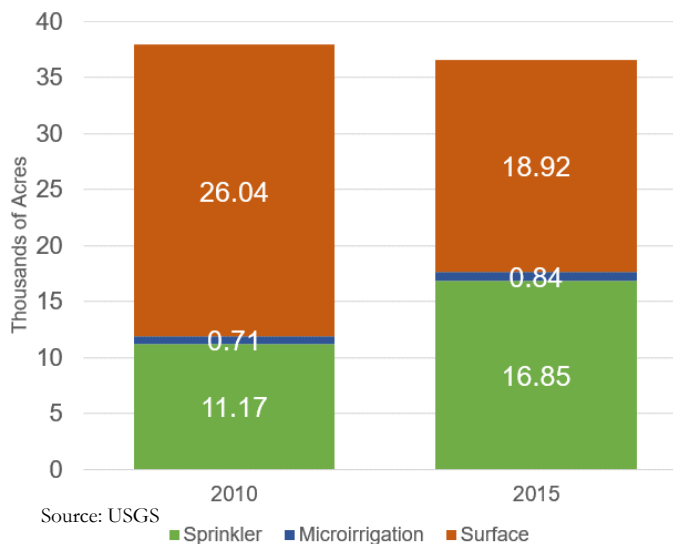
In Arizona, agriculture accounts for about 75% of the state's water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management 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 Graham County within any of the state's AMAs or INAs.

Based on 2015 USGS estimates of water use, agriculture accounted for 96.2% of Graham County water withdrawals. Irrigated crop production is concentrated in the Safford area which is located on the Gila River. Agricultural irrigation water use in Graham County is dominated by production of crops, with the source of water split between groundwater (119,150 acre-feet (AF)) and surface water (86,016 AF). An acre-foot is the amount of water required to cover one acre one foot deep in water. Estimated groundwater use increased between 2010 and 2015 and surface water use declined slightly. Meanwhile, total irrigated acreage declined between 2010 and 2015, and acreage by irrigation technology shifted from surface irrigation dominant to a more even split between sprinkler and gravity-flow irrigation, with microirrigation representing only a small share of total acreage.

Graham County Water Map



Graham County Irrigated Acres by Irrigation Technology



Graham County Agricultural Water Use by Use and Source

