

# Greenlee County, AZ

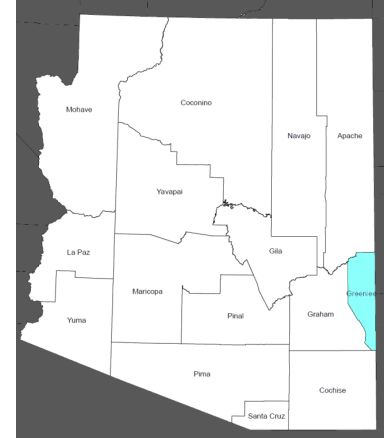
## Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

### Overview

Greenlee County is located in eastern Arizona along the New Mexico border. It is bordered by Apache County to the north and Graham county to the west. As of 2018 the population was just under 9,500 with more than 46% of the county’s population residing in rural areas. Major population centers include Clifton and Duncan.

Top industries in Greenlee County include copper mining and mining-related industries. On-farm agriculture has a small footprint, accounting for less than 1% of all private employment and less than 0.2% of county GDP.

Characterized by its rugged, mountainous terrain, Greenlee County also has a relatively small proportion of land in farms (6%). Much of the land in Greenlee County is public land, or government-owned. Ranchers in Greenlee County lease land from public agencies for grazing. Greenlee County accounts for less than 1% of Arizona’s total agricultural cash receipts.



Map of Greenlee County, Arizona

Indicator	Greenlee County	Arizona
Land Area (square miles)	1,848	113,990
Land in Farms (Crops, Grazing) (square miles)	103	40,822
Population (2018)	9,483	7,171,646
Annual Average Population Growth Rate (2010-18)	1.6%	1.4%
Percent of Population Over 65 (2018)	13.2%	17.5%
Percent Population Rural (2010)	46.6%	10.2%
Total Employment (2018)	4,890	2,826,095
Share Federal, State, & Local Government Employment (2018)	11.5%	13.8%
GDP (2018)	\$1.7 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$2.5 million	\$2.3 billion

Industry	Location Quotient
Copper, nickel, lead, and zinc mining	1,164.07
Support activities for metal mining	629.63
Postal service	107.76
Support activities for rail transportation	60.42
<b>Water supply and irrigation systems</b>	<b>39.21</b>
Natural gas distribution	33.91
<b>Corn farming</b>	<b>29.72</b>
Bowling centers	27.44
Septic tank and related services	26.77
<b>Soil preparation, planting, and cultivating</b>	<b>26.33</b>

Top 10 Private Industries in Greenlee County by Establishment 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 Greenlee County’s economy and concentration of employment in a small number of large firms, non-disclosed data prevents presenting employment location quotients for the county. Therefore LQs are calculated based on the number of businesses. Greenlee County’s economy is heavily mining dependent, with copper, nickel, lead, and zinc mining ranking first by establishment LQ. Water supply and irrigation systems, corn farming, and soil preparation, planting, and cultivating are agriculture or agriculture-related industries that rank in the top 10.

# Greenlee 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 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

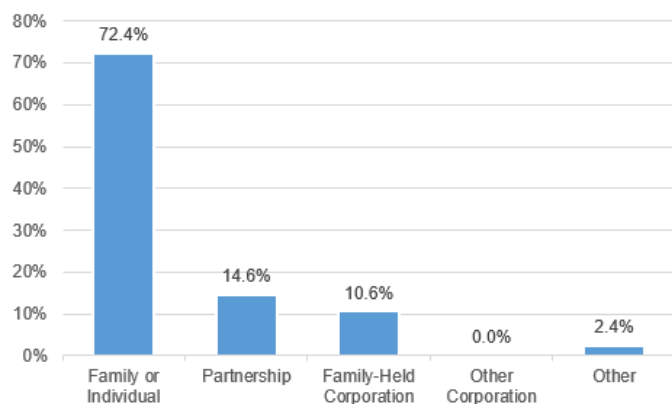
There were 123 farms in Greenlee County in 2017, covering 3,279 acres of cropland (100% irrigated) and 59,714 acres of pastureland (3% irrigated). The average farm size was 536 acres, larger than the national average of 441 acres, with the top 5% of farms accounting for 67% of county acreage.

Of 123 total farms, 35 had less than \$1,000 in sales and 4 had more than \$500,000 in sales. A large majority (72%) of county farms are family- or individually-held farms, 15% are partnerships, and 11% are 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 Greenlee County is beef cattle ranching and farming (68 farms), followed by aquaculture and other animal production\* (20 farms).

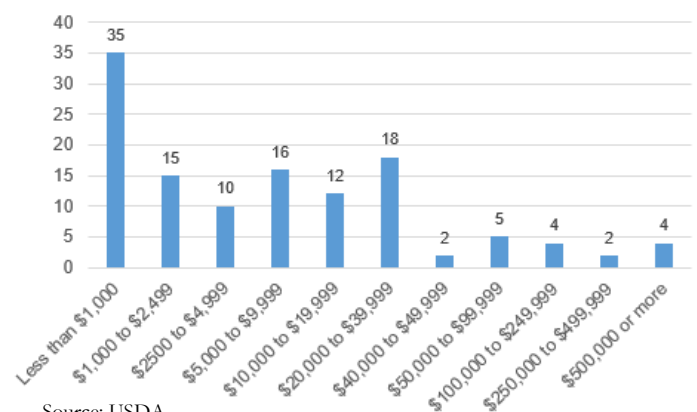
While the number of farms is helpful in understanding how many farms “specialize” in different types of agricultural production, it does not reflect the magnitude or scale of production by commodity, which is better captured by sales or cash receipts (next page).

### Greenlee County Farms by Legal Organization, 2017



Source: USDA

### Greenlee County Farms by Annual Sales, 2017



Source: USDA

### Greenlee County Farms by Industry

Category	Farms
<b>Total farms</b>	<b>123</b>
Oilseed and grain farming	0
Vegetable and melon farming	2
Fruit and tree nut farming	4
Greenhouse, nursery, and floriculture production	0
Other crop farming	16
Cotton farming	2
Hay and all other crop farming	14
Beef cattle ranching and farming	68
Cattle feedlots	0
Dairy cattle and milk production	1
Hog and pig farming	0
Poultry and egg production	0
Sheep and goat farming	12
<u>Aquaculture and other animal production*</u>	<u>20</u>

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

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## Production & Marketing

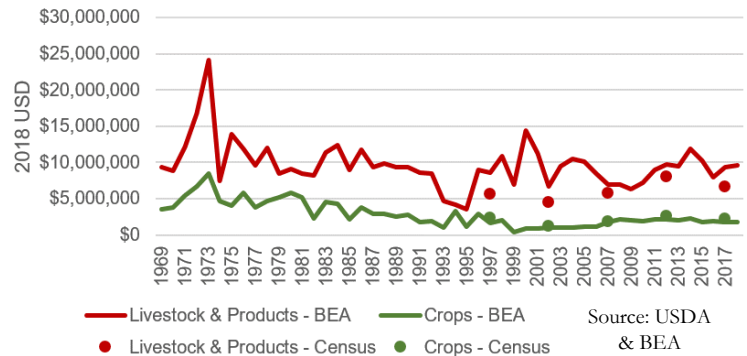
Greenlee County is a livestock-dominant county, with 75% of county cash receipts originating from sales of livestock, and 25% from crops.

According to the 2017 Census of Agriculture, the major agricultural commodities by sales are **cattle and calves** (sales data not disclosed to prevent identifying individual operations) and **other crops and hay** (\$1.9 million).

Beef cattle ranching is the most prominent agricultural activity in Greenlee County, with the county accounting for approximately 3% of the state's inventory of beef cows.

Local marketing data is not disclosed and there were no farms with reported sales of organic production.

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

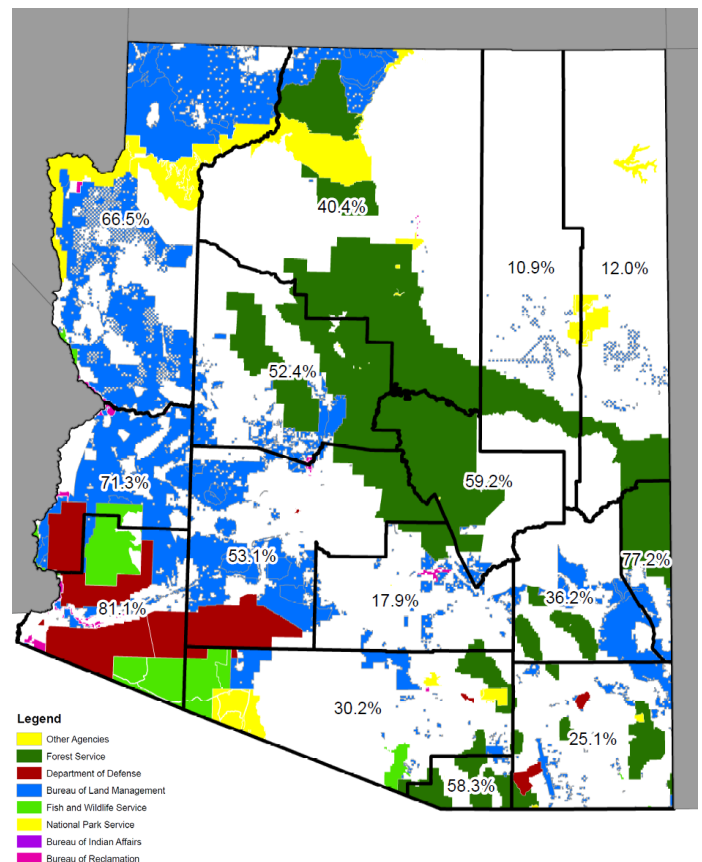


## Ranching & Public Lands

Greenlee County has the second highest share of federal lands of all counties in Arizona at 77.2% (Yuma County has 81.1%). As a livestock-dominant county, many Greenlee County livestock producers rely on leasing federal lands for grazing their livestock. The Forest Service (FS) and the Bureau of Land Management (BLM) are the two federal agencies that issue grazing permits. Approximately 64% of Greenlee County's land area is managed by the FS and 13% is managed by the BLM.

Ranching on public lands presents a series of unique considerations for producers. Wildland fire is one issue that affects livestock producers, particularly those operating in forested areas. Greenlee County has been significantly impacted by wildland fire in recent years. In the summer of 2011, the Wallow Fire burned a large portion of the Apache-Sitgreaves National Forest in Greenlee and Apache counties. As one of the largest fires in the state's history, grazing activity was disrupted for livestock producers who were forced to flee and move livestock to safety. Additionally, grazing on public lands requires coordinating with one or many land managers, complying with federal or state regulation, obtaining permits, and paying fees. These considerations have implications for operations and the cost of doing business (Cost and Return Estimates for Cow/Calf Ranches in Five Regions of Arizona, Teegerstrom & Tronstad, 2000).

Share of County Area in Federal Lands and Type



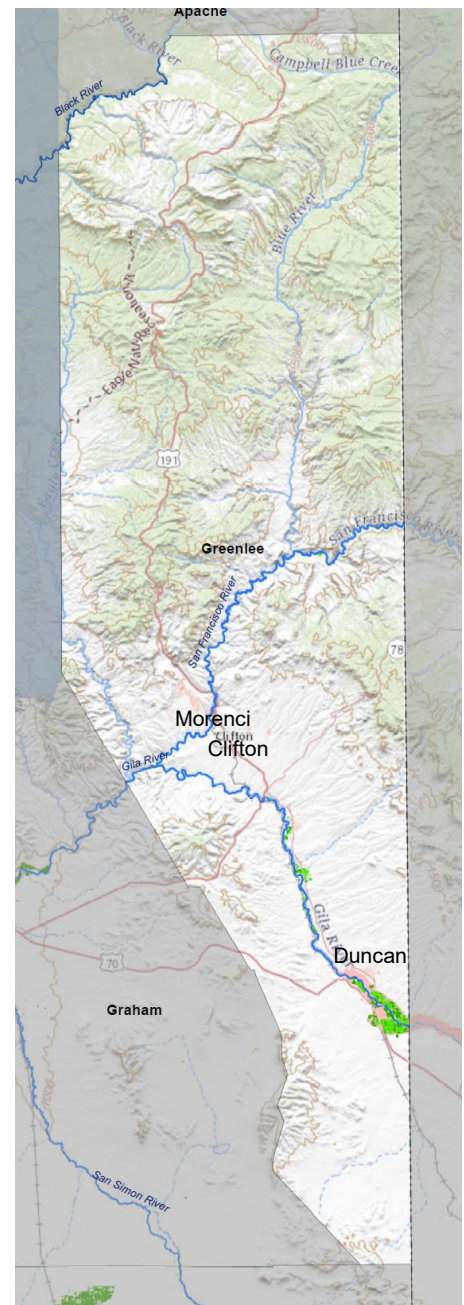
# Greenlee County, AZ

## Irrigation Water Use

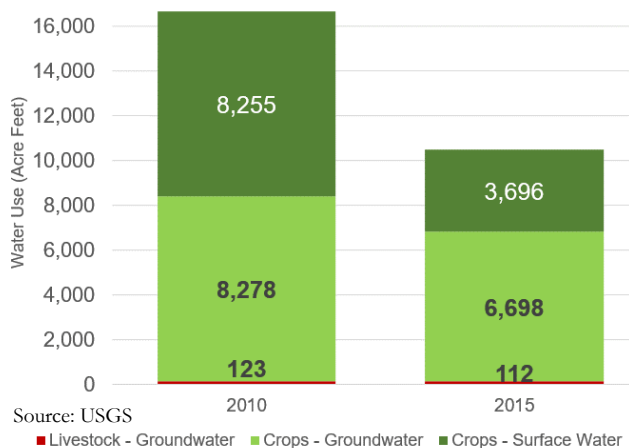
In Arizona, agriculture accounts for about 75% of the state’s water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management 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 Greenlee County within an AMA or INA. Based on 2015 USGS estimates of water use, agriculture accounted for 60.0% of Greenlee County water withdrawals. Irrigated crop production is concentrated in the Gila River Valley near Duncan, Arizona. Agricultural irrigation water use in Greenlee County is dominated by production of crops, with the majority of irrigation water coming from groundwater. Water source is split between groundwater (6,810 acre-feet (AF)) and surface water (3,696 AF). An acre-foot is the amount of water required to cover one acre one foot deep in water. Groundwater and surface water withdrawals decreased between 2010 and 2015. Total irrigated acreage declined between 2010 and 2015, mostly through declines in acres irrigated by gravity-flow irrigation.

Greenlee County Water Map



Greenlee County Agricultural Water Use by Use and Source



Greenlee County Irrigated Acres by Irrigation Technology

