

Arizona County Agricultural Economy Profiles
University of Arizona Cooperative Extension

Overview

Santa Cruz County is located in southern Arizona bordered to the north by Pima County, to the east by Cochise County, and to the south by Mexico. It is the smallest county in Arizona by land area at 1,238 square miles. Major population centers include Nogales and Rio Rico.

Top industries in Santa Cruz County include transportation, wholesale, government, and agriculture. The county is home to a cluster of industries involved in the importation, storage, and transportation of fresh produce from Mexico. Ranching is prominent within the county, but there is also significant greenhouse production and a robust grape-growing and wine-making region in the eastern part of the county near Sonoita.

On-farm agriculture accounts for a relatively small share (1%) of Santa Cruz County's GDP, but accounts for nearly 3% of private employment, higher than the national and state averages. It also occupies approximately one-quarter of county land area. Santa Cruz County accounts for 1% of Arizona's total agricultural cash receipts.



Map of Santa Cruz County, Arizona

Indicator	Santa Cruz County	Arizona
Land Area (square miles)	1,238	113,990
Land in Farms (Crops, Grazing) (square miles)	309	40,822
Population (2018)	46,511	7,171,646
Annual Average Population Growth Rate (2010-18)	-0.2%	1.4%
Percent of Population Over 65 (2018)	18.1%	17.5%
Percent Population Rural (2010)	26.9%	10.2%
Total Employment (2018)	13,305	2,826,095
Share Federal, State, & Local Government Employment (2018)	27.2%	13.8%
GDP (2018)	\$1.9 billion	\$348.3 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2018)	\$18.7 million	\$2.3 billion

To Unadana	Location
Industry	Quotient
Fruit and vegetable merchant wholesalers	143.05
Fruit and vegetable markets	25.75
Other postharvest crop activities	20.43
Freight transportation arrangement	18.80
Art dealers	17.63
Beef cattle ranching and farming	12.33
Other support activities for road transport.	10.10
Clothing accessories stores	8.50
Packaging and labeling services	5.54
Wineries	5.51

Top 10 Private Industries in Santa Cruz County by Employment LQ

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.

Agricultural industries ranking in the top 10 most concentrated industries in the county include other postharvest crop activities (20.43 times more concentrated than the national average), beef cattle ranching (12.33), and wineries (5.51). Industries linked with the fresh produce trade also rank highly in the county, for example, fruit and vegetable merchant wholesalers (143.05) and freight transportation arrangement (18.80).





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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

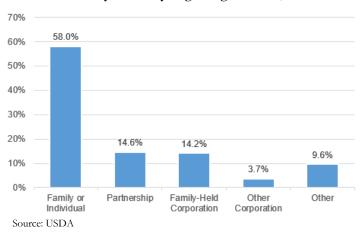
There were 219 farms in Santa Cruz County in 2017, covering 1,398 acres of cropland (89% irrigated) and 191,118 acres of pastureland (<1% irrigated). The average farm size was 903 acres, larger than the national average of 441 acres, with the top 12% of farms accounting for 83% of county acreage.

Of 219 total farms, 72 had less than \$1,000 in sales and 4 farms had more than \$500,000 in sales. A slight majority of county farms (58%) are family- or individually-held, while 15% are partnerships, 14% are family-held corporations, 4% are other corporations, and 10% have other forms of legal organization.

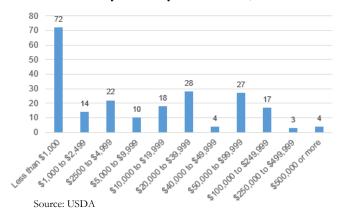
Farms are classified by the type of agricultural products they produce. When a farm or ranch produces more than one agricultural product, they are classified by the product that constitutes more than 50% of their sales. The most common type of operation in Santa Cruz County is beef cattle ranching and farming (111 farms), followed by aquaculture and other animal production* (51 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).

Santa Cruz County Farms by Legal Organization, 2017



Santa Cruz County Farms by Annual Sales, 2017



Santa Cruz County Farms by Industry

Category	Farms
Total farms	219
Oilseed and grain farming	0
Vegetable and melon farming	15
Fruit and tree nut farming	24
Greenhouse, nursery, and floriculture production	7
Other crop farming	4
Cotton farming	0
Hay and all other crop farming	4
Beef cattle ranching and farming	111
Cattle feedlots	1
Dairy cattle and milk production	0
Hog and pig farming	0
Poultry and egg production	0
Sheep and goat farming	6
Aquaculture and other animal production*	51

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





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Production & Marketing

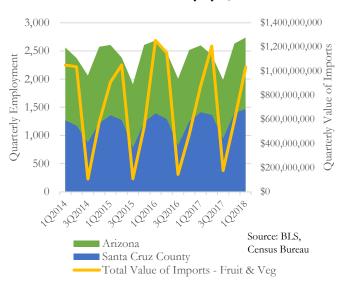
In past years, Santa Cruz County has been a livestock-dominant county, though the 2017 Census of Agriculture reports an increase in crop production between 2012 and 2017. According to the 2017 Census of Agriculture, major agricultural commodities by sales include *cattle and calves* (\$9.6 million) and *nursery, greenhouse, floriculture, and sod* (sales data not disclosed to prevent identifying individual operations). One farm in the county reported sales of organic production.

Fresh Produce Wholesale Industry

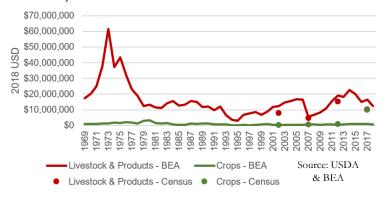
The Nogales port of entry, located in Santa Cruz County, is a top port nationally for shipments of fresh fruits and vegetables from Mexico, the U.S.'s top source of imported fresh produce.

One of Santa Cruz County's largest private industries is *fruit and vegetable merchant wholesalers*. In 2018, there were 125 establishments, employing more than 1,300 people, and accounting for about 10% of total employment and 13% of total wages in the county. Fruit and vegetable merchant wholesaling employment is highly seasonal in Santa Cruz County, and corresponds closely with the value of fresh produce imports arriving through the Nogales port of entry.

Value of Fruit & Vegetable Imports through Nogales Port of Entry & Employment in Fruit & Vegetable Merchant Wholesalers in Santa Cruz County by Quarter



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



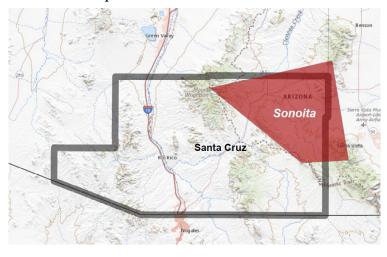
Wineries in Santa Cruz County

Like its neighbor Cochise County, Santa Cruz County has a growing wine industry.

The northeastern part of the county is home to the Sonoita American Viticultural Area (AVA). An AVA is an area that has been designated and recognized as a wine grape-growing region.

In 2017, the county had 229 acres of grape production by 25 growers. This increased from 2012 when there were 19 growers with 191 acres of grape production.

Sonoita AVA Map







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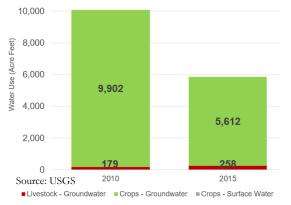
Irrigation Water Use

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.

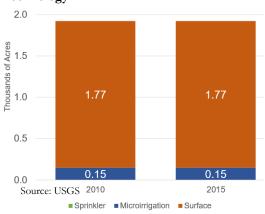
Santa Cruz County is located within two AMAs: 46.2% of Santa Cruz County land area is located in the Santa Cruz AMA and 9.4% of land is located in the Tucson AMA. Data available for AMAs from the Arizona Department of Water Resources show that demand for water in the Santa Cruz AMA has remained relatively steady between 1985 and 2017, and the share of water demand from agriculture has fallen from 62% in 1985 to 57% in 2017.

Based on 2015 USGS estimates of water use, agriculture accounted for 39.6% of Santa Cruz County water withdrawals. Agricultural irrigation water use in Santa Cruz County is dominated by production of crops, with irrigation water almost exclusively sourced from groundwater. In 2015, an estimated 5,870 acre-feet (AF) was sourced from groundwater for crop production. 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 running south to north across the county. Groundwater use decreased between 2010 and 2015. Meanwhile, total irrigated acreage remained constant and relied primarily on gravity-flow irrigation.

Santa Cruz County Agricultural Water Use by Use and Source



Santa Cruz County Irrigated Acres by Irrigation Technology



Santa Cruz County Water Map



Santa Cruz AMA Water Demand, 1985-2017

