Arizona County Agricultural Economy Profiles University of Arizona Cooperative Extension

Overview

Maricopa County is located in central Arizona and is home to the state capital, Phoenix. It is Arizona's most populous county, with more than 4.5 million inhabitants. Only 2.3% of the county's population resides in rural areas. Maricopa County represents the largest county economy in the state. Top industries include a growing high-tech industry, manufacturing, and financial services. The county is also home to several higher education institutions including Arizona State University. On-farm agriculture accounts for approximately 0.3% of all private employment and directly contributes \$459.2 million in GDP to the county's \$350 billion economy.

Though its agricultural production is small relative to the county economy, Maricopa County plays a prominent role in the state's production of agricultural commodities. The county's fertile river valley land has been farmed for centuries by indigenous peoples. Today, a variety of crops are grown, including cotton, vegetables and melons, hay, and grains, however, county production is dominated by livestock, specifically milk production. Maricopa County accounts 30% of Arizona's total agricultural cash receipts.



Map of Maricopa County, Arizona

Indicator	Maricopa County	Arizona
Land Area (square miles)	9,199	113,591
Land in Farms (Crops, Grazing) (square miles) (2022)	784	39,883
Population (2022)	4,551,524	7,359,197
Annual Average Population Growth Rate (2010-22)	1.6%	1.2%
Percent of Population Over 65 (2022)	16.2%	18.8%
Percent Population Rural (2020)	2.3%	10.7%
Total Employment (2022)	2,170,744	3,075,427
Share Federal, State, & Local Government Employment (2022)	9.5%	13.5%
GDP (2022)	\$350.2 billion	\$475.7 billion
Ag, Forestry, & Hunting GDP (on-farm only) (2022)	\$459.2 million	\$2.6 billion

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Industry	Location Quotient
Satellite telecommunications	12.76
Other activities related to credit intermediation	7.86
Semiconductor and related device manufacturing	7.28
Professional employer organizations	5.43
Small arms, ordnance, and ordnance accessories manufacturing	5.03
Sales financing	4.23
Health and welfare funds	4.00
Packing and crating	3.96
Financial transactions processing, reserve, and clearinghouse activities	3.80
Aircraft engine and engine parts manufacturing	3.50
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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 industries in Maricopa County, agriculture does not rank among them. That said, the county is one of the top agricultural counties in the state, though due to the size of the county's economy, agriculture is outweighed by economic activity in the metro Phoenix area.

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





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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.

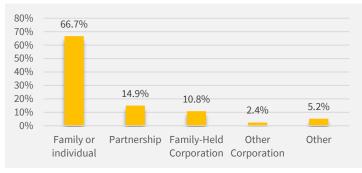
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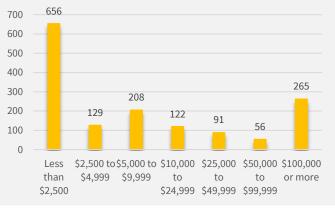
Farms

There were 1,527 farms in Maricopa County in 2022, covering 264,018 acres of cropland (100% of harvested acreage irrigated) and 238,011 acres of pastureland (1% irrigated). The average farm size was 329 acres, significantly smaller than the state average of 1,528 acres, with the top 4% of farms accounting for 79% of county acreage. Of 1,527 farms, 656 had less than \$2,500 in sales and 265 had more than \$100,000 in sales. A majority of county farms (67%) are family- or individually-held, 15% are partnerships, 11% are family-held corporations, and 2.4% 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 Maricopa County is aquaculture and other animal production (633 farms), followed by sugarcane farming, hay farming, and all other crop farming (206 farms), and beef cattle ranching and farming (189 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).

Maricopa County Farms by Legal Organization, 2022





Maricopa County Farms by Annual Sales, 2022

Source: USDA

Maricopa County Farms by Industry, 2022

Category	Farms
Total farms	1,527
Oilseed and grain farming	32
Vegetable and melon farming	54
Fruit and tree nut farming	173
Greenhouse, nursery, and floriculture production	69
Other crop farming	207
Cotton farming	1
Sugarcane farming, hay farming, and all other crop farming	206
Beef cattle ranching and farming	189
Cattle feedlots	2
Dairy cattle and milk production	29
Hog and pig farming	15
Poultry and egg production	72
Sheep and goat farming	52
Aquaculture and other animal production	633
South	

Source: USDA

Source: USDA



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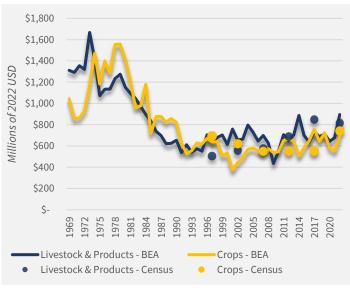
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Production & Marketing

Maricopa County generates a roughly even mix of agricultural sales through crops versus livestock and livestock products. This pattern has held over time in the county. Total agricultural cash receipts were \$1.6 billion in 2022. Commodities responsible for large shares of these sales were vegetables, melons, potatoes, and sweet potatoes with \$275 million in sales, other crops and hay with \$278 million in sales, nursery, greenhouse, floriculture, and sod with \$117 million in sales, and milk from cows with \$599 million in sales. Most of these products directly or indirectly serve the large metropolitan Phoenix area. An estimated \$136 million of the county's agricultural cash receipts are from products sold directly to retail markets, institutions, and food hubs for local or regionally branded products, evidence of a growing local foods movement in the region.

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



Source: USDA & BEA

Tribal Agriculture

Maricopa County contains the Fort McDowell Yavapai Nation and the Salt River Pima-Maricopa Reservation, as well as portions of the Gila River Indian Community and the Tohono O'odham Nation. Statistics reported below represent production within entire tribal areas, therefore production occurring within the county is only a portion of the totals for tribal areas not fully within the county. In 2017, the Fort McDowell Yavapai Nation had 11 farms; the Salt River Pima-Maricopa reservation had 8 farms, 5 of which farmed crops on 27,419 acres, with \$87.5 million in sales; the Gila River Indian Community, partially in Maricopa County, had 55 farms, 40,930 acres of crops, and \$32.8 million in sales, primarily cotton and hay; and the Tohono O'odham Nation had 164 farms, 8,603 acres of crops, and total sales of \$8.1 million.

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Central Arizona Ag History

Maricopa County and Central Arizona have long been a center of agricultural production. Agriculture in the area is estimated to date back to the fifth century A.D. when the Hohokam civilization farmed the area surrounding the confluence of the Salt and Gila Rivers. They developed a sophisticated system of hand-dug irrigation canals, measuring hundreds of miles in length. In fact, current day water conveyance systems in the region retrace portions of the original system.

In the late 1800s, non-native settlers arrived in the region. Flood control became problematic as agriculture expanded in major river valleys, and by the early 1900s major water infrastructure projects were underway, investing in large dams and reservoirs. The First World War marked a transition for agriculture in the region as long-staple cotton production expanded rapidly in the area to support the manufacture of tires for the war effort. By mid-century, Maricopa County had become one of the largest agricultural producing counties in the country. Since that time, production has shifted to support dairy production, supplying the state's major population centers, and milk from cows is now the county's most valuable commodity in terms of sales. Nonetheless, the county continues to be an important producer of winter vegetables, fruit, and cotton. *Source: Contribution of Agriculture to the Maricopa County and Gila River Indian Community Economies (2018) by Duval, D., Bickel, A.K., and Frisvold, G.*





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Irrigation Water Use

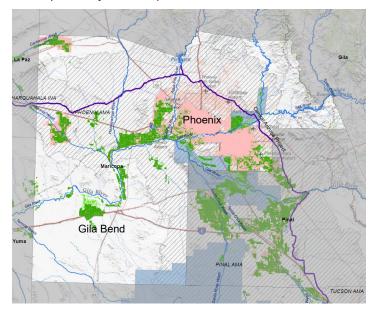
In Arizona, agriculture accounts for about 75% of the state's water use. More than half of withdrawals for agricultural uses in the state are from surface water. In some areas of the state with high demand, groundwater withdrawals for irrigated agriculture are limited by the 1980 Groundwater Management 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. Maricopa County has 48.8% of its land area in the Phoenix AMA, 4.1% in the Pinal AMA, 5.3% in the Harquahala INA, and 41.9% outside of an AMA or INA.

For more information on water in Maricopa County, please visit the University of Arizona Water Resource Research Center county water factsheets by clicking <u>here</u> or scanning the QR code \rightarrow



Maricopa County Water Map

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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 <u>here</u> or scan the QR code to visit our site →





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