

CDFA's Contributions to
California's Agricultural Excellence



FOREWORD

We work hard to make California a better place to live because of what we grow *and how we grow it*.

At the California Department of Food and Agriculture, we work to build and safeguard resilient food systems – including programs that improve nutrition for students and extend additional benefits to seniors and other deserving Californians. We support farmers and ranchers, and improve conditions for workers and the larger agricultural community, and promote an equitable marketplace. In this report, you'll find both urgent efforts and longer-term projects that put farmers and ranchers and workers throughout the food chain in a better position to do what they do best.

In California agriculture, as in California writ large, *leadership is simply a natural result of what we do*.

From the most immediate pressures like addressing pests and diseases, to the most far-reaching like nutrition and climate change, to the most fundamental like fairness in the public marketplace, CDFA partners with California's agricultural community to show the world what works.

I encourage you to read these examples, and to consider them as we all reflect upon the past year – and upon the true nature of leadership.

Karen Ross



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Bird Flu

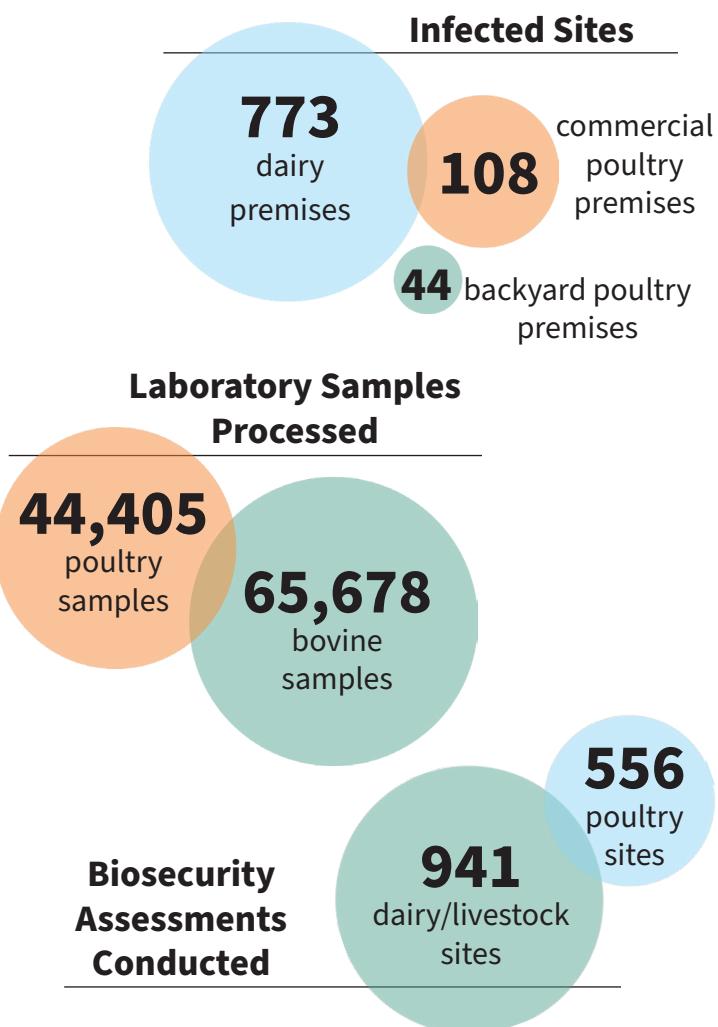
Readiness, Reliability and Repeatable Results in Response to a Persistent Threat

Highly Pathogenic Avian Influenza (HPAI) is a persistent challenge that isn't going away any time soon. As long as HPAI or any disease of catastrophic consequence to livestock and poultry remains a threat, CDFA will be there to meet the challenge. The outbreak of 2024-2025 in our dairy and poultry farms put our preparedness to the test – and we passed. **After a total of 773 dairies and 108 commercial poultry farms were affected in the outbreak, as of the beginning of 2026, only a handful of premises remained in quarantine.**

Each autumn in California brings back the beauty of bird migrations – but that massive, natural influx of wild birds can carry HPAI to our poultry flocks and livestock. We work hard in advance to ensure that our farms and ranches are well aware of the need to implement enhanced biosecurity measures each year to reduce this risk.

At the same time, we maintain a parallel focus on preventing new, novel HPAI infection from the movement of infected dairy cattle into the state. Our import and export requirements cover about 1.3 million cattle moving interstate per year. Producers, private veterinarians, and officials at our agricultural inspection stations and movement permit offices have redoubled their efforts since our first case in 2024, and we have greatly reduced the risk of interstate spread.

2024-2025 Outbreak: By the Numbers



Climate

California's Strategy is *Resilience*

The Climate Resilience Strategy for California Agriculture sets out to capture the myriad efforts underway to strengthen the resilience of this industry and identify additional needs. This strategy **shows what the state is already doing** to ease impacts, prevents new issues from arising, and **points to areas where efforts can be expanded.**

California agriculture, like many sectors, is vulnerable to the effects of climate change and faces a complex set of challenges. **The California State Board of Food and Agriculture's Ag Vision 2030** identified the need to "Foster climate-smart, resilient, and regenerative food systems" as the number-one priority for California agriculture.

CDFA developed the **Climate Resilience Strategy for California Agriculture** over the course of 2024 & 2025, starting with input from **CDFA's Scientific Advisory Panel on Resilient and Sustainable Agriculture**, ten public workshops, input from many state agencies, interviews with stakeholder groups, and in collaboration with CDFA's staff Climate Working Group. The final version will be published in early 2026.

"We are already feeling the effects of climate change and want to do all we can to build resilience in agriculture."

CDFA Secretary Karen Ross

The strategy document is intended to be a resource for producers, partner agencies, the legislature, agricultural stakeholders, and the public. It outlines the California's mesh of programs that reduce emissions, sequester carbon, enhance biodiversity, and accelerate water and nutrient management while supporting farmer economic resilience, while identifying gaps and opportunities for further action.

California farmers and ranchers are stewards of vast rural landscapes and are essential partners in the state's climate solutions.

Support a Thriving and Resilient Food Sector

1. Foster a Robust and Sustainable Agricultural Economy
2. Ensure a Water System for Food System Resilience in a Hotter, Drier Future
3. Support Agricultural Workforce Wellbeing and Health
4. Protect Animal Health
5. Advance Energy Efficiency and Decarbonization for Agricultural Operations

Key Objectives of the Climate Resilience Strategy

Protect Natural Systems Critical to Agriculture

6. Conserve Productive Farmland
7. Deploy Sustainable, Adaptable, and Integrated Pest Management
8. Boost Biodiversity on Farm Lands

Encourage Resilient Agriculture Practices

9. Enhance Agricultural Practices to Support Clean Air Communities
10. Advance Climate-Smart and Healthy Soils Practices
11. Improve Ranching Sustainability and Rangeland Management
12. Increase Dairy Farming Sustainability

CLIMATE CASE STUDIES

Equitable Training as a Catalyst for Upward Mobility

“Our people live around agriculture and everything related to climate change affects our communities directly.... For us, ‘climate resilience’ has a profound meaning because we are the peoples of the rain (Mixtec) and the clouds (Zapotec). Our identity, our stories, and our ways of life are intimately connected to the water cycle, Mother Earth, and the skies. Climate resilience is not only about resisting the impacts of climate change, but also about keeping alive the sacred relationship with nature that gives us life.”

– **Juvenal Solano** and the Mixtec/Indigenous Community Organizing Project team (MICOP)



CDFA Farm Equity Advisor Thea Rittenhouse (third from left) met with the Mixtec/Indigenous Community Organizing Project team (MICOP).



CAFF field day giving training on biologically integrated pest management in a walnut orchard.

Promoting Biologically Integrated Orchard Systems Builds Biodiversity

These [Biologically Integrated Farming Systems Programs]-funded training events allowed the conversations at field days to [explore these connections]. I think we need to invest in finding the synergies between farmer experience and what the research tells us about climate resilience and how to adapt to it. The more we can bridge these, the more practical solutions and innovations we will find to benefit farmers, the environment and our food system.”

– **Sara Tiffany**, California Alliance of Family Farmers (CAFF)

A Holistic Ecosystem Perspective Cultivates Healthy Soil

“There’s gotta be a way to expand people’s experience of their relationship to the soil. It really starts there.... [We need to see the soil] as something that’s alive, like a plant... [W]ithout these grants these last couple of years, I really don’t know what kind of situation [I would be in]. That’s really from the heart ... I really want lawmakers and the public to know that ... your money was spent really well because it’s the hardest thing for a farmer to ... be forced to quit. [So I want to show] some genuine appreciation for being part of this program.”

– **Franz Eilers**, Heartwood Farms

Nutrient rich soil amended with compost made on-farm, funded by the Healthy Soils Program



California's EV Future

CDFA is Ensuring Accuracy at the Charging Station

Whether your vehicle's fuel comes from a pump or a charging station, you expect to get what you paid for. That means accurate measurement, reliable technology, and a secure purchase transaction.

As the state accelerates its transition to clean transportation, Electric Vehicle Supply Equipment (EVSE), commonly known as electric vehicle chargers, has emerged as a key element of the new infrastructure, both for consumers adopting the technology and for suppliers and regulators implementing these transformational systems. Consumers expect an experience that matches or exceeds what they've come to know in California's pre-existing fueling stations.

CDFA's Division of Measurement Standards (DMS) plays a critical role in ensuring the accuracy and integrity of commercial weighing and measuring devices across California – including EVSE technologies and devices. In short, it's our job to ensure that these systems, from software to hardware to real-world charging experiences and transactions, are fair, accurate and equitable. DMS collaborates with county officials, state agencies, and the EV industry to ensure that installations of EVSE used for commercial purposes meet California's high standards for transaction accuracy and marketplace equity.

DMS' California Type Evaluation Program (CTEP) certifies that EVSE devices used commercially are manufactured in compliance with California's legal and technical requirements – the foundation for accurate and transparent transactions.

Our Registered Service Agency (RSA) Program benefits the EVSE owner/operator by streamlining the process of placing an EVSE in service. An RSA verifies that commercial EVSE are properly installed, unaltered from the type approval certificate, and meet applicable device requirements before the equipment begins consumer service.

By the Numbers

Helping California build EV charging infrastructure

Training:

Over **40** hands-on training sessions with county officials

More than **100** individuals trained in EVSE testing procedures

RSA Network:

DMS has registered **47** EVSE service agencies that employ **278** service agents who are authorized to install, repair and place in service commercial EVSE



Type evaluation expert working with a Registered Service Agent to test new Electric Vehicle Supply Equipment (EVSE).

Weights and Measures officials testing EVSE in a parking structure



Field testing EV devices



California's EV Charger Rollout

200,000+ total EV charging devices statewide

80,000+ public/commercial chargers

120,000+ non-public/non-commercial chargers

Expanding Testing Capacity:

5 standard testing units already in use

15 total standard testing units planned for statewide coverage

13+ counties with their own EVSE testing equipment

Device Certification:

40 CTEP Certificates of Approval (COAs) issued for EVSE in 2025

Looking Ahead

DMS remains committed to ensuring that California's EV infrastructure is **accurate, reliable, and ready for the future.**

Through certification, training, and collaboration, DMS is helping to power California's clean transportation goals, one charge at a time.



County officials testing EVSE equipment in the field

Measurement standards officials being trained to use testing equipment



One Health

California's Role in the Unified Global Drive for Science, Policy and Investment in Food Safety

The concept behind the World Health Organization's One Health project is simple: **By linking humans, animals and the environment, we can address the full spectrum of disease control** – from prevention to detection, preparedness, response and management – and contribute to global health security.

One Health is a collaborative, multidisciplinary, systems-thinking approach that recognizes the health of people is interconnected to the health of animals, plants and our shared environments. At CDFA, that's a language we speak fluently.

CDFA is already a global leader when it comes to our work on infectious diseases, antimicrobial resistance, food safety policy, and promoting the health and integrity of our ecosystems. One key example is our research and stakeholder outreach to enhance the safety of leafy greens in California, which works hand-in-glove with the [One Health](#) approach. This work includes the best current example of One Health in action at CDFA: our Inspection Services Division's focus on a [Healthy People 2030](#) objective aimed at reducing Shiga toxin-producing *E. coli* risk in produce and leafy greens.

California Longitudinal Study (CALS)

The California Longitudinal Study (CALS) started in 2020 and is focused along California's coastal growing region. It represents a leading California effort aimed to adaptively address the outbreaks of *E. coli* O157:H7 associated with leafy green crops. To accomplish CALS, California's leafy green industry is collaborating with partners from California's cattle, viticulture, and compost industries, UC Davis Western Center for Food Safety, and state and federal partners.

The CALS effort is designed to allow growers and affiliates in the agriculture industry to **better understand prevalence of human pathogens in and around leafy green crop growing environments.** The project aims to provide an extensive data set, including metagenomics that may yield **important clues to the changes taking place in the microbial community in response to the changing environment of the California coastal region.**

Researchers are working toward a presentation of key findings for Central Coast stakeholders in March 2026.



California Agricultural Neighbors

cdfa

Farm Bureau Monterey

California Cattlemen's Association

California Farm Bureau Federation

California Leafy Greens Marketing Agreement

Western Growers Association

Fall 2024

Building a proactive food safety culture

["California Agricultural Neighbors: Building a Proactive Food Safety Culture"](#) is CAN's most recent publication that offers next steps to continue building a proactive food safety culture with all stakeholders involved.

New World Screwworm

Surveillance + Science + Collaboration = Preparedness

Every so often, a threat comes along that strays into the realm of science-fiction. At first glance, New World Screwworm (NWS) is just such a flesh-eating threat, reminiscent of a campy B-movie. But it's important to separate fact from fiction: Can it infect humans? Yes – but human cases are rare; NWS is primarily a problem for animals, including livestock. Even so, it is prudent to take measures to protect people as well as pets, wildlife and other animals.

CDFA is Engaging Stakeholders Through Education and Surveillance

As of this writing, NWS has not made its way into California, although detections south of the border are concerning. We are conducting extensive outreach in advance and providing guidance to private veterinary practitioners, animal agriculture

producers, and hobbyists. Collaboration with producers through multiple channels is already underway. CDFA is producing guidance on effective treatments for NWS and encouraging producers to implement routine fly control measures.

Private practitioners, producers, and hobbyists should report all NWS findings to our district offices or sick animal hotline for a trained CDFA veterinarian to investigate. That number is 1-866-922-2473, or 1-866-922-BIRD.

CDFA is Leading a Coordinated Multi-Agency Response Strategy

We are working with USDA, public health officials and other partner agencies to develop protocols for emergency approvals on critical response elements, including pesticide use, alternative carcass disposal methods, and movement control guidance.



NWS larvae

**Reporting is critical:
1-866-922-BIRD**

NEXT STEPS: Grant Project

CDFA has awarded \$507,421 for a three-year project to optimize early detection and rapid response, through our Adaptive IPM for Invasive Agricultural Pests grant program. The three-year project will collaborate closely with CDFA's Animal Health Branch to:

- Form a working group and surveillance network for **early recognition** of NWS.
- Develop IPM guidelines for both **prevention and control** of infestations.
- Initiate an educational training program to help veterinarians and livestock producers **recognize, address, and report** screwworm infestations in animals.



NWS Life Cycle: (1) Adult female flies lay eggs in wounds/orifices of mammals. In about 24 hours, the eggs develop into larvae (2) that feed on the wound and flesh of the host animal for approximately seven days before dropping to the ground to pupate (3) in the soil, where they emerge as adult flies (4) 7-54 days later, depending on environmental factors.



A Comprehensive Approach

The Future of Pest Prevention

Pest Exclusion: Dog Teams = An Ounce of Prevention

An estimated 8.05 million parcels enter California every day through at least 288 shipping facilities. That a lot of chances for an invasive pest to gain entry to one of the most productive agricultural regions in the world.

- California currently employs 12 Dog Teams that visit parcel facilities, resulting in over **15,982 pest detection events** and the issuance of over 24,839 Notice of Rejections (2010-2023).
- **Just a single introduction** of an invasive fruit fly can result in a quarantine costing from **\$2 million to \$20 million or more**.
- **The cost for one dog team for a full year is approximately \$352,941.** Compare that to the cost of even a single quarantine, and it's easy to see that this is the classic "ounce of prevention."

Border Protection Stations (BPS) Program

- In 2022, over 37 million total vehicles entered the State of California through the 16 Border Stations and 2.6 million were voluntarily inspected.
- With increased investment in the BPS Program, more vehicles could be inspected, further reducing the pest pressure from other states into California through domestic border crossings.

C3PA: Comprehensive Analysis of Pest Prevention

With an acronym reminiscent of a famous robot from a galaxy far, far away, C3PA – shorthand for Comprehensive Pest Prevention Program Analysis – really is about the future.

CDFA and the California Agricultural Commissioners and Sealers Association (CACASA) partnered with scientists from the UC and CSU academic systems, USDA, and other researchers to conduct an analysis of California's pest prevention system. This effort began in 2023 and is nearing completion.

California's "invasive species approach rate" – the likelihood of new pest introductions within our borders – has increased significantly, paralleling the growth of international travel and eCommerce. The smart money, as they say, is in prevention. **The draft report yields high-level results that support increasing investment in the main tools used to prevent invasive pest introductions**, including Detector Dog Teams, County High Risk Pest Exclusion (HRPE) inspectors, and Border Protection Stations.

Exclusion

Activities designed to prevent pest introduction.

Detection

Efforts to detect plant pests early.

Eradication

Timely and effective actions to eliminate new pest infestations.

Control

Containment of plant pests that have become established.

Identification

Accurate and timely pest identification.

Public Outreach

Activities to enhance public awareness of pest issues.

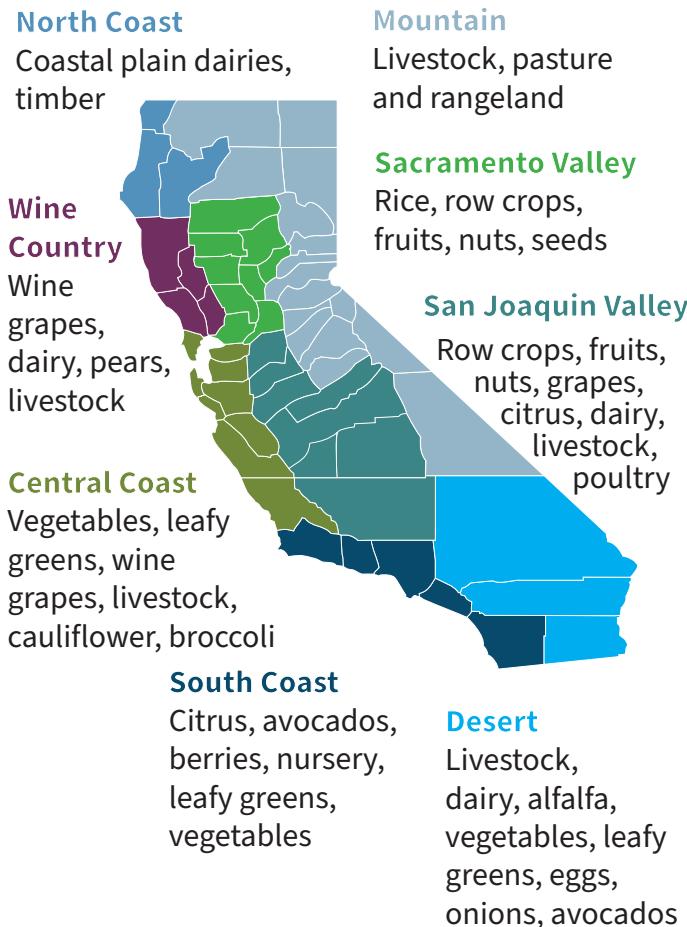
Scientific Support

Efforts to ensure that the pest prevention system is based on the best available and most current science.



California agriculture is bountiful.

Our variety and productivity encompass so many commodities and categories that it makes it difficult to describe all that we do. Even defining regions within our state is an exercise bound to leave many crops and commodities out of the list. With that in mind, here is a very basic summary of what we grow and where we grow it:



Top 20 Agricultural Commodities by value

Rank	Commodity	Value	Variety
1	Dairy	\$8.6 billion	The top 5 include dairy, fruit, leafy greens, livestock and nuts...
2	Almonds	\$5.6 billion	
3	Grapes	\$5.6 billion	
4	Cattle/Calves	\$5.0 billion	
5	Lettuce	\$3.7 billion	
6	Strawberries	\$3.5 billion	
7	Pistachios	\$2.1 billion	
8	Tomatoes	\$1.6 billion	
9	Carrots	\$1.6 billion	
10	Broilers	\$1.4 billion	
11	Hay	\$1.2 billion	the top 10 add berries, poultry, and vegetables...
12	Rice	\$1.1 billion	
13	Broccoli	\$1.0 billion	
14	Floriculture	\$958 million	
15	Oranges	\$948 million	
16	Eggs	\$857 million	
17	Tangerines	\$682 million	
18	Cauliflower	\$555 million	
19	Lemons	\$555 million	
20	Avocados	\$488 million	

The top 5 include dairy, fruit, leafy greens, livestock and nuts...

the top 10 add berries, poultry, and vegetables...

...and the top 20 add feed, grains, fiber and eggs.

That's variety and nutrition on a scale that only California can do.

California is the sole producer (99% or more) of 14 ag commodities:

Almonds	Nectarines
Artichokes	Olives
Celery	Clingstone Peaches
Garlic	Pistachios
Raisins	Plums
Kiwifruit	Dried Plums
Honeydew Melons	Walnuts

California also leads the nation in the production of 72 agricultural commodities.

AG EXPORTS

to the Americas, the Pacific Rim and Beyond

Total Ag Export Revenue: \$22.4 billion

Top 10 Ag Exports	Value
1 Almonds	\$4.4 billion
2 Pistachios	\$2.7 billion
3 Dairy products	\$2.6 billion
4 Wine	\$1.1 billion
5 Walnuts	\$922 million
6 Tomatoes	\$769 million
7 Rice	\$741 million
8 Grapes	\$616 million
9 Oranges	\$597 million
10 Strawberries	\$509 million

Top 10 Export Markets	Value	Leading Export Commodities
1 Canada	\$3.7 billion	Dairy, wine, strawberries, lettuce
2 EU	\$2.6 billion	Almonds, pistachios, walnuts
3 China/HK	\$1.9 billion	Pistachios, almonds, dairy/products
4 Mexico	\$1.8 billion	Dairy/products, table grapes, tomatoes
5 Japan	\$1.5 billion	Rice, almonds, dairy/products
6 India	\$1.2 billion	Almonds, cotton, pistachios
7 South Korea	\$906 million	Almonds, oranges, dairy, beef
8 UAE	\$549 million	Almonds, pistachios, walnuts
9 Turkey	\$515 million	Pistachios, almonds, walnuts, cotton
10 Vietnam	\$348 million	Pistachios, almonds, dairy, cotton

California Agriculture: The Way We Grow

Scale Productivity Efficiency Nutrition Safety Equity **Leadership**

The Scale of California's Agricultural Productivity

Golden State farmers and ranchers earn more than \$61.2 billion annually for their agricultural commodities (USDA-ERS, 2024).

Farms in California

- **62,500 farms**
- 23,700,000 acres
- Average Size: 383 acres

California farms are substantially smaller than the national average of 463 acres

California Farms by Value of Sales

- 40% of farms have annual sales **less than \$10,000**
- 28% have annual sales of **\$10,000 to \$100,000**
- 31% have annual sales of **\$100,000 or more**

California Farms by Size

- **62% of farms are less than 50 acres**
- 27% of farms are 50 to 499 acres
- 12% of farms are 500 acres+

California ranks first in organic farming with \$11.8 billion in sales from 1.78 million certified organic acres. Leading counties for organic sales in 2023 are Kern (\$899 million), Monterey (\$821 million), and Fresno (\$412 million).

California Farmers

- The average California farmer is **59.9 years old**
- 37% of California's ag producers are women
- 42% of our *new/beginning* farmers are women
- 9% of California farmers are Hispanic
- 12% are veterans/active duty military

California's Farm Workers

California's minimum wage for farm workers is \$16.90 compared to the federal minimum of \$7.25. Six of the nation's top ten agricultural states use the federal minimum wage, including #2 Iowa and #3 Texas.

\$61,200,000,000

annual market value of California's agricultural commodities (2024)

Kern County
\$8.63 billion

Kern County
alone outproduces 27 American states.

Fresno County
\$8.59 billion

California farmers outproduce 23 states... combined.

Tulare County
\$7.87 billion

Nine of the nation's top 10 agricultural counties are in California. (Number 10 is Weld, CO with \$2.39 billion.)

Monterey County
\$4.35 billion

Merced County
\$4.22 billion

California's top 13 counties combined outproduce any other US state.

Stanislaus County
\$3.35 billion

San Joaquin County
\$3.22 billion

Imperial County
\$2.66 billion

Kings County
\$2.16 billion

Ventura County
\$2.13 billion

Ventura, California's 10th-ranked county, outproduces 13 states.

County ranking: 2023 California Agricultural Statistics Review



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