



2021

California Agriculture
The Focus is Forward





4

Climate Smart Agriculture



8

Equity. Diversity. Inclusion.



12

Farm to Fork

California Grown



20

22

DMS Measures What Matters

25

Animal Health and Food Safety

40

Pierce's Disease

42

Protecting Citrus from HLB

44

County Partnerships

45

Plant Health and Pest Prevention

53

Inspection Services

62

Marketing Services

65

Grant Spotlight: Orange County Fair Exhibit

66

State Board of Food and Agriculture

67

Trade: CDFA on the Global Stage



2021

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Undersecretary

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Deputy Secretary, Administration
and Finance

Rachael O'Brien
Deputy Secretary, Legislation

Haig Baghdassarian
Deputy Secretary and Chief Counsel

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Deputy Secretary, Fairs and Expositions

Virginia Jameson
Deputy Secretary, Climate and
Working Lands

Amrith Gunasekara, Ph.D.
Science Advisor to the Secretary

Arima Kozina
Special Assistant to the Office
of the Secretary

Steve Lyle
Director of Public Affairs

Joshua Eddy
State Director, International Affairs

Hyrum Eastman
County-State Liaison

CDFA DIVISION DIRECTORS

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Natalie Krout-Greenberg,
Inspection Services

Mark McLoughlin, Plant Health
& Pest Prevention Services

Dr. Annette Jones, State Veterinarian,
Animal Health & Food Safety Services

Robert Peterson, Office of
Information Technology Services

Victoria Hornbaker, Citrus Pest
& Disease Prevention Division

Kristin Macey, Division of
Measurement Standards

Kathy Diaz, Marketing Services



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE

FOREWORD

BY CDFA SECRETARY KAREN ROSS



The most visible elements of what we do at CDFA are about today: inspecting today's harvest, stopping today's invasive pest or animal disease, or responding to the latest emergency. And all of that is important, even urgent. Has to be done now; has to be done well.

But the other side of that coin - **the forward focus** - is every bit as important. As we've gone through this historically strange and trying and indeed mournful time, with COVID-19 and wildfires and drought all doing their worst, it is the focus on a better future for our farms and our families that pulls us through.



Governor Gavin Newsom's leadership is helping this department and this industry incorporate equity and climate change not just in our policies but in our daily decisions and conduct. That's the kind of resolute and forward-thinking leadership we need to build **a future that is proudly, distinctly Californian.**

While CDFA is here to protect our state's agriculture and environment from what threatens today, we also help you develop on-farm practices that will improve yields, save water, reduce inputs, and adapt to climate change. We help farmers and ranchers prioritize research, pool resources, conduct demonstration projects, convert to new tech. That's helping farmers make their own futures.

This report is by no means an exhaustive list of everything CDFA does. We would need a lot more pages for that. What it is, though, is a representative expression of our value to both producers, consumers, the environment, and the state.

I'm proud of this work. Most of all, though, after more than a decade of service as California's Agriculture Secretary, I am proud of the people in this department who, like the farmers and ranchers we serve, know both the meaning and the reward of "a good day's work."

CLIMATE SMART AGRICULTURE ISN'T JUST THE FUTURE.



On-Farm Water Efficiency Practices

Water Conservation Practices

- 💧 Flow meters
- 💧 Soil moisture sensors
- 💧 Weather stations
- 💧 Micro-irrigation
- 💧 Reservoir or pipeline lining
- 💧 Improved distribution uniformity

Greenhouse Gas Reduction Practices

- ☁ Pump retrofit
- ☁ Pump replacement
- ☁ Fuel conversion
- ☁ Renewable energy
- ☁ Variable frequency drives
- ☁ Reduced pumping through water conservation

IN CALIFORNIA, IT'S ALREADY HERE.

Helping California reach its climate goals means helping farmers cut GHG emissions, improve water-use efficiency, and cut energy consumption.

SWEEP

The State Water Efficiency and Enhancement Program (SWEEP) reduces irrigation water use and reduces carbon dioxide greenhouse gases on farms. Benefits include agricultural drought resiliency, mitigation of climate warming greenhouse gases and climate change adaptation by increasing on-farm water efficiency and reducing fossil fuel use.

Since 2014:

828 projects

\$80.5 million
resulting in approximately

80,000 MTCO_{2e}
in greenhouse gas reductions
per year

115,000 acre-feet
of water saved

HEALTHY SOILS PROGRAM

The goal of the Healthy Soils Program (HSP) is quite a bit simpler than the science behind it: reduce atmospheric greenhouse gases through carbon sequestration in agricultural soils by building the soil carbon content.

Translation: healthy soil fights climate change.

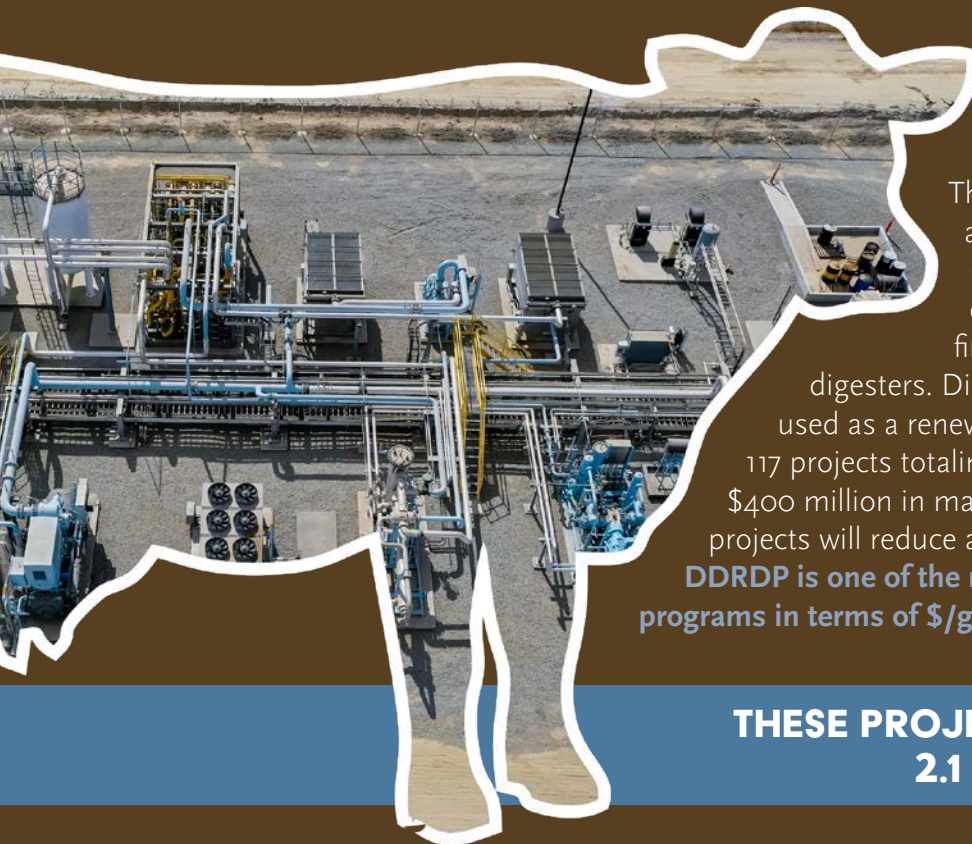
657 incentive and demonstration project grants

\$41 million

Through **compost application, cover-cropping, reduced tillage and other on-farm practices**, these projects have led to **an estimated 111,300 MTCO₂e/year greenhouse gas reductions.**



**THIS IS
YOUR
SOIL ON
COMPOST.**



Dairy Digesters: Farmers are Turning Methane Emissions into "Future Fuel"

The goal of CDFA's Dairy Digester Research and Development Program (DDRDP) is to reduce methane greenhouse gases from dairy agricultural operations by providing financial assistance for the installation of digesters. Digesters capture the methane, which can be used as a renewable energy source. DDRDP has funded 117 projects totaling approximately \$195 million with another \$400 million in matching funds from the sector. These projects will reduce an estimated 2.1 Million MTCO_{2e} annually.

DDRDP is one of the most successful climate change mitigation programs in terms of \$/greenhouse gas reduction.

**THESE PROJECTS REDUCE AN ESTIMATED
2.1 MILLION MTCO_{2e} ANNUALLY**

(^metric tons of CO₂ equivalent)

Alternative Manure Management

The goal of the Alternative Manure Management Program (AMMP) is to provide financial assistance for the implementation of non-digester manure management practices on dairy and livestock operations in California, driving reductions in methane greenhouse gas emissions.



- ▶ **\$68 MILLION**
- ▶ **116 PROJECTS**
- ▶ **220,000 MTCO_{2e} REDUCTIONS ANNUALLY**

Farming Innovation: New Programs

CDFA's Office of Environmental Farming and Innovation (OEFI) administers two new programs for the first time in 2021:

- » **The Conservation Agriculture Planning Grants Program** received \$39 million in funding from fiscal year 2021 through 2023 to develop a plan to help farmers and ranchers identify actions for climate change mitigation and adaptation, further environmental stewardship on farms and ranches, and ensure agricultural food security.
- » **The Pollinator Habitat Program** will fund pollinator-friendly management practices on farms and ranches in California through 2023, with the goal of furthering environmental stewardship and providing pollinator services on farms and ranches in California.

Cannabis Appellations Program

The Cannabis Appellations Program is being developed and administered by the Environmental Projects Unit (EPU), formerly under the Division of Cannabis (CalCannabis) within CDFA. As part of a reorganization to merge most of the state's cannabis programs, the EPU remained with CDFA and was moved to the Office of Environmental Farming and Innovation (OEFI) to continue development of regulations guiding the future of the Cannabis Appellations Program.

SB 170 allocated \$9 million over three years to develop a Sustainable California Grown Cannabis Pilot Program. This program will be administered by the EPU and will foster relationships between

farmers and academia to assess, develop and incentivize environmentally friendly farming practices among outdoor cannabis cultivators. A guide of Best Management Practices will be created for use by all outdoor cannabis cultivators.



Office of Pesticide Consultation and Analysis (OPCA)

OPCA provides consultation services to the California Department of Pesticide Regulation (DPR), runs two competitive grant programs, and provides support to IR-4. OPCA has received \$3.75 million in General Fund money for FY 2021-2022 to continue funding new BIFS, Proactive IPM, and IR-4 projects.

- » The Biologically Integrated Farming Systems (BIFS) grant program supports projects that enact innovative, biologically integrated pest management practices that reduce chemical pesticide inputs.
- » The Proactive Integrated Pest Management Solutions grants support research to identify and test integrated pest management strategies that can be rapidly implemented for new invasive species in California.
- » IR-4 supports pesticide registrations and alternative pest management technologies for specialty crops. OPCA funding helps address the extensive backlog of IR-4 projects requested by California specialty crop growers.

OPCA's consultative activities focus on the potential impacts of proposed DPR regulations, along with pest management alternatives that may mitigate or prevent such impacts on production agriculture.

Recent OPCA Accomplishments:

- » Awarded \$1 million through the BIFS grant program (FY 2020-21)
- » Awarded almost \$500,000 through the Proactive Integrated Pest Management Solutions grant program (FY 2020-21)
- » Gave over \$340,000 to the IR-4 program (FY 2020-21)
- » Completed two major reports for DPR on the economic and pest management impacts of proposed neonicotinoid and 1,3-dichloropropene regulations
- » Provided two pre-notice comment letters to DPR on proposed regulations

Equity for underserved farmers and ranchers



Remaking government with equity in mind means a fairer future for historically underserved producers

With a fairer future firmly in mind, the California Department of Food and Agriculture has developed and nurtured a grant program that has matured into an efficient, effective and exemplary method of moving both state and federal funds to the farmers and ranchers whom funding is designed to help. Along the way, the department and its stakeholders have acknowledged and responded to a clear need to also offer assistance to socially disadvantaged producers as well as smaller operations that don't often have the resources, personnel or capital to do the legwork to gather all of the site-specific data and information that is often necessary to apply for these grants. Add in a curveball like COVID-19, and all of the economic fluctuations and labor considerations that come with it, and taking on a new grant project can seem like a pretty big "lift."

Enter: the California Underserved and Small Producers Program (CUSP) – www.cdfa.ca.gov/CUSP/
– This new grant program was created through SB 85 to cut through some of those concerns by providing

direct assistance to historically underserved, socially disadvantaged, small-scale producers. This program includes grants for organizations that provide technical assistance (TA) to help producers directly apply for state and federal economic relief funds. TA organizations also provide assistance with marketing strategies, business planning and other necessary business planning assistance to help producers adjust to changes in markets as a result of the COVID-19 pandemic. This program also awarded block grants to one non-profit organization and one nine-member collaborative group to administer direct relief grants of \$1,000 to \$20,000 to farmers and ranchers, with an emphasis on historically underserved, small-scale producers not previously eligible for relief grant funding. To date, the direct farmer grant has awarded \$795,364 in funding to 149 producers statewide.

Additional funding was approved for this program through the 2021 state budget, enabling additional rounds of funding for both technical assistance and direct producer grants.

Misayel, Gerardo and Luis farm a 20-acre plot on the Central Coast. They are pictured with Sacha Lozano with the Santa Cruz Resource Conservation District.



CUSP Program Funding: Regional Distribution

Central Valley \$353,523 distributed

Fresno (52 projects)
Merced (20)
San Joaquin (4)
Madera (3)
Kern (2)
Inyo (1)

Central Coast \$205,841 distributed

Monterey (10)
Santa Clara (13)
San Benito (3)
Santa Barbara (2)

Sacramento Valley \$116,500 distributed

Sacramento (17)
Yolo County (4)

San Diego County \$32,500 distributed

(3 awards)

Los Angeles & Inland Empire \$27,500 distributed

Riverside (1)
San Bernardino (4)

North Coast Region \$52,500 distributed

Lake (2)
Del Norte (1)
Butte (2)
Mendocino (1)
Tehama (1)

SF Bay Area \$7,500 distributed

Alameda (1)
Marin (1)

EQUITY IS OUR FUTURE

DIRECT FARMER OUTREACH

918

Socially Disadvantaged Farmers and Ranchers (SDFR) were directly targeted to receive information on CDFA's CUSP Program or other federal relief grants.

Of these 918 SDFRs, 311 identified themselves as Black, Indigenous and People of Color (BIPOC).

The federal and state relief programs that producers applied for were:

- » Coronavirus Food Assistance Program 2 (CFAP-2): 62 farmers
- » California Small Business COVID-19 Grant: 11 farmers

Additional technical assistance was given to farmers on the USDA organic certification cost share program, the CAFF farmer emergency relief fund, and the USDA Environmental Quality Incentives Program (EQIP).



CCORE: Putting CDFA on the Path Toward Racial Equity

Like most public organizations, CDFA has spent the past few years looking critically at its own role in perpetuating the racial inequity that is so prevalent throughout our laws, regulations, actions and leadership. It's no easy task, and it does take time – but we must acknowledge our institutional and individual complicity, and then *use that new knowledge to respond with specific, focused and sustained action.*

To that end, CDFA engaged more than a year ago with Capital Cohort on Race & Equity (CCORE), a community of California government entities working together since 2018 to learn about, plan for, and implement activities that embed racial equity approaches into institutional culture, policies, and practices. CCORE implements a commitment by the Health in All Policies Task Force to increase the capacity of state government to advance health and racial equity.

CDFA's CCORE team wrapped up its first year of training in October 2021, and will now focus on drafting a Racial Equity Action Plan for public rollout in 2022. The long-term vision for this project is that “all Californians have the right to healthy and fresh food.” The four pillars of the plan include: Community Outreach and Engagement (language access, stakeholder engagement and communication), Programs and Policies (grants, contracting equity, Boards and Commissions), Training and Education for CDFA staff (internal support, opportunities and tools) and Hiring and Workforce Equity (Hiring practices, retention, diversity and upward mobility).

ACTIVITY

CDFA & RACIAL EQUITY IN CALIFORNIA AGRICULTURE

CDFA
Speaker
Series

Monica Armster Rainge
USDA Deputy Assistant Secretary
for Civil Rights

Monica is an agricultural lawyer and mediator with 25-plus years of experience in the public and private sectors, and at the state and federal levels. She has dedicated her career in law and advocacy to fighting for underserved and marginalized communities in food, agriculture and natural resources management.



Monday, June 21

10 am to noon

Zoom Virtual Event
details in email

Activities hosted by
the CCORE group:

**CDFA Racial Equity
Speaker Series**

**CDFA Racial Equity
Book Club**

**CCORE Leadership
Training**

◀ Flyer promoting
one of the virtual
"Racial Equity Speaker
Series" presentations

To deepen CDFA's efforts to improve equity internally, the department instituted a Diversity, Equity and Inclusion (DEI) Committee comprised of employees from a remarkably diverse range of backgrounds.

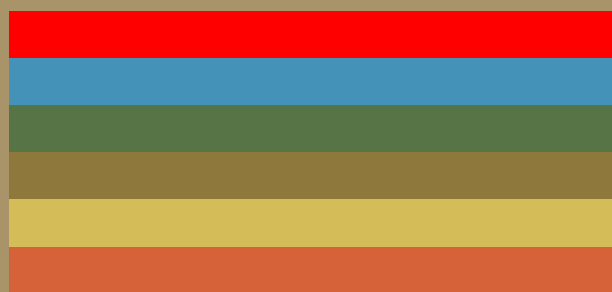
The committee hit the ground running and has already hosted a series of informational and empowering activities open to all CDFA employees. A few examples:

- » BIPOC Mental Health Awareness Speaker Series
- » June 2021 Pride Month and virtual pride parade
- » 21-Day Racial Equity Challenge in September 2021, building awareness and offering opportunities for in-depth reading and discussion of racial equity

SPREADING THE WORD ON DIVERSITY, EQUITY & INCLUSION

ADVISORY GROUPS

Building on the 2020 Farmer Equity Report, which identified the need to include voices of farmers of color in decision-making and advising at CDFA, two advisory committees and a working group were formed in 2021:



► **BIPOC Farmer Advisory Committee**

This group has provided critical and timely input on the CUSP program and others throughout 2021.

► **Small-scale/Historically Underserved Producer Serving Organizations Ad-hoc Advisory Committee**

This committee is a discussion forum and platform to evaluate new programs and policies as well as provide perspectives of historically underserved producers.

Boards and Commissions Working Group

CDFA instituted this group to look critically at the accessibility of the department's dozens of industry-led boards and commissions.

CDFA Board/Commission index and points of contact: www.cdfa.ca.gov/boards_and_commissions/



CDFA OFFICE OF

FARM *to* FORK

Building future demand
for what California grows

CDFA's Office of Farm to Fork (CDFA-F2F) programs increase the demand for California farmers' and ranchers' nutritious products through expanding the market to more community members and schools. California's commitment to continuing this market expansion was demonstrated when the Governor's 2021-22 Budget included an additional \$127 million allocated to CDFA-F2F.

Farm to School expands markets for farmers to form closer relationships with local schools

**In 2021, the Farm to School
Incubator Grant Program awarded**

\$8.5 MILLION

to

60

farm to school projects

The 2021-22 State Budget includes

\$60 MILLION

to expand the program over the next two fiscal years

The scale and potential value of the
California farm to school market is eye-opening:

6 MILLION STUDENTS

ENROLLED STATEWIDE

899 MILLION SCHOOL MEALS

SERVED EACH YEAR



Turlock Unified School District's Farm to School Incubator Grant includes buying local, grass-fed beef, local free-range chicken and new varieties of seasonal produce from local producers for school lunches. Students also will continue participating in culinary classes (pictured).

HELPING CALIFORNIA KIDS THRIVE

California First Partner's school visit highlights 'scratch kitchen'

California First Partner Jennifer Siebel Newsom ▶

continued a series of farm to school tours, coordinated by CDFA's Farm to School Program, with a visit to Edwin Markham Elementary School in the Vacaville Unified School District in September 2021. The visit highlighted renovations to the school's kitchen to help prepare healthy, nutritious meals made from scratch each day. The school is partnering with EatREAL Certified, a nutrition non-profit that received a 2020 CA Farm to School Incubator Grant.

(Right) The First Partner is with CDFA Farm to School Program Lead Nick Anicich and Edwin Markham Elementary School Chef Richi Wilim as they point to healthy, nutritious meals made from scratch in the school's "scratch kitchen."



FARM TO SCHOOL



Secretary Ross and California's First Partner showcase how farm to school benefits our urban farms



California First Partner Jennifer Siebel Newsom (front, center) and CDFA Secretary Karen Ross (front, left) tour Fiery Ginger Farm with co-founder Shayne Zurilgen. Fiery Ginger Farm is a two-acre urban farm in West Sacramento located on land leased from Washington Unified School District. The farm grows food for schools, farmers' markets, retail and restaurants.

URBAN. LOCAL. SMALL. THE FUTURE OF AG IS INCLUSIVE.

**URBAN
FARMS**

**+URBAN
SCHOOLS**

**=HEALTHY
EDUCATION**



The First Partner (center) joins Secretary Ross (right) during a tour of Three Sisters Gardens in West Sacramento in June 2021 to better understand the benefits of farm to school programs for small urban farms. Three Sisters Garden farmer and founder Alfred Melbourne describes how he works to engage and empower youth through agriculture and promoting food sovereignty at his farm site.





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\$4.27 MILLION

IN INCENTIVES TO BUY CALIFORNIA-GROWN PRODUCE

California Nutrition Incentive Program helps nutrition-benefit shoppers purchase more of what California farmers grow best

The California Nutrition Incentive Program (CNIP) helped farmers and needy families in FY2020-21 by distributing \$4.27 million in incentives to be spent on California-grown fresh produce. At the 285 CNIP grantee locations throughout California, shoppers

who utilized CalFresh and Women, Infants and Children (WIC) Farmers' Market Nutrition Program benefits received a dollar-for-dollar match of CNIP funding for California-grown fruits and vegetables.



WHAT MAKES A STORE HEALTHY?

Healthy Refrigeration Grant Program brings fresh produce to consumers in low-access areas

If the goal is a healthier future for all Californians, well, then fresh produce is a great place to start. The Healthy Refrigeration Grant Program (HRGP) helps farmers by funding refrigeration units to sell California-grown produce in low-income or low-access areas and facilitate better produce distribution and procurement for corner stores. In FY2020-21, HRGP distributed \$1.76 million to 37 grantees, which funded 137 refrigeration units, including eight refrigerated trucks, across California, as well as technical assistance to corner stores.

Above: Refrigeration units at McCloud Market in Siskiyou County funded through HRGP.

Below: Soto Street Market in the Boyle Heights area of Los Angeles County received a HRGP-funded refrigeration unit.



Seed Money

At CDFA's Office of Grants Administration, we think of it as "funding Ag's future"

When you get right down to it, the grants administered by CDFA are government funding on a very local scale.

We provide a range of grants, both federal and state, that help our farmers and ranchers improve their crop yields, use less water and energy, reduce their greenhouse gas emissions, streamline their operations, expand their marketing options... you get the idea.

We help farmers and ranchers do what they do, better. And we also have grants that help spread the word about these funding opportunities to smaller operations and historically disadvantaged producers. We even help them apply for the grants and then follow through to track and report their results.

Specialty Crop Block Grant Program (SCBGP)

The Office of Grants Administration (OGA) awarded **\$23.9 million to 65 projects** to enhance the competitiveness of California specialty crops through the Specialty Crop Block Grant Program. The 2021 round included 17 proposals totaling \$4.5 million to support beginning and socially disadvantaged farmers and/or underserved communities. The ongoing SCBGP H. R. 133 stimulus funding solicitation will award **an additional \$31.6 million for projects that address impacts of COVID-19** and/or secure the long-term competitiveness of California specialty crops.

Specialty Crop Multi-State Program (SCMP)

California perennially leads the nation in SCMP funding. OGA anticipates the same outcome for the current 2021 SCMP solicitation. OGA staff coordinated a first-of-its-kind national outreach program with the other SCMP participating states and developed SCMP application templates approved and distributed by USDA and used nationally.

State Trade Expansion Program (STEP)

With a year to go in the 2020 STEP grant, the program has already supported **80 California Eligible Small Business Concerns** to achieve **\$1 million in new export sales**.

SPAY/NEUTER Grant Programs

OGA administered **\$516,000 in grant funds** that are projected to support nearly **29,000 spay/neuter surgeries** for California pets.

HEALTHY SENIORS ARE A VITAL AND VIBRANT PART OF CALIFORNIA'S FUTURE

Senior Farmers' Market Nutrition Program

537,425 LBS. OF PRODUCE
40 VARIETIES
23,314 SENIORS

Partnership

CDFA partners with the California Association of Food Banks (CAFB) to assemble and distribute produce boxes through 10 local food banks throughout California.

Awards to Farmers

CAFB awards went to four individual farmers and seven aggregators who partnered with 65 farmers to assemble produce boxes for distribution.

Produce Provided

FNMP Authorized Farmers provided 537,425 pounds and more than 40 varieties of fresh, locally grown produce.

Seniors Served

CDFA was able to provide produce boxes to 23,314 low-income seniors.





20 YEARS OF PROMOTING OUR AGRICULTURAL EXCELLENCE

California Grown, which got its start 20 years ago as the Buy California Marketing Agreement, is a joint effort of agricultural industry groups representing the products of California's farms, nurseries, ranches, forests, and fisheries. Working as an advisory board to the California Department of Food and Agriculture (CDFA), California Grown brings together industry and government resources to increase the awareness, consumption and value of California agricultural products, helping the state's consumers enjoy the best of the California lifestyle.

2021 marks the 20th anniversary of the Buy California Marketing Agreement, the only statewide organization promoting California Grown agricultural products on a year-round basis.



- ◆ **California Grown is reaching millions of consumers through creative marketing, effective storytelling, and leveraging of the "California Grown" brand with anchor activities like the "Grown to be Great" campaign.**
- ◆ **The energetic digital program is complemented by a well-rounded retail promotion campaign, "Eat the Season," executed in partnership with a number of California retailers.**
- ◆ **California Grown continues to celebrate the state's farmers and farmworkers who work daily to provide healthy and nutritious food to our tables by recognizing October as Farmer and Farmworker Month.**
- ◆ **California Grown messaging ensures consumers understand the value of buying California Grown agricultural products and the direct benefit to the state's economy, communities, farmers, ranchers, and consumers.**



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California Grown

July 9 · 🌐

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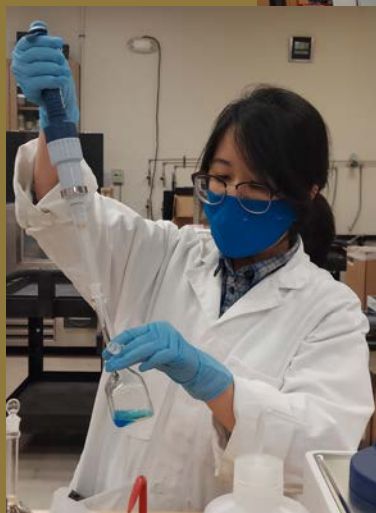
Like our page if you're as obsessed with eating healthy California grown fruits, nuts, and vegetables as we are.



DMS Measures What Matters

Forging Ahead Despite the Pandemic

CDFA's Division of Measurement Standards (DMS) staff are considered essential employees and kept working resiliently in 2021, both in the field and in our laboratories.



Quality You Can Trust

2,000 samples of various fuels, lubricants, and automotive products were obtained and analyzed in DMS' two fuels laboratories. **90% were compliant with established quality standards.** Products not meeting specifications are removed from sale and appropriate enforcement action is taken.

2,000 FUEL SAMPLES IN 2021

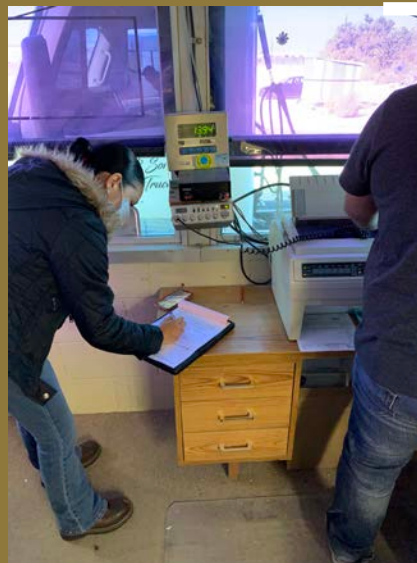
Accurate
Measurement
Means Fairness
in California's
Marketplace

“WEIGHT” FOR IT



County inspectors rely on accurate standards to test commercial scales and meters; **DMS' Metrology Laboratory issued more than 4,000 certified standards** despite COVID-19 restrictions on work and travel.

EVERY STEP OF THE “WEIGH”



From farm to fork and port to store, **accurate measurements throughout the supply chain** helped keep California's economy moving in the right direction during 2021. As county fairs reopened and international trade picked up, DMS staff and county weights and measures officials were there to verify the accuracy in measurement of commodities and goods sold.

CHARGING INTO THE FUTURE



In California, the future is already on the road: Electric vehicles, Plug-in hybrids and other alternative-fueled options. And CDFA has an important role to play in this grand rollout of the future of fuel.

In 2021, California became the first state to enforce specifications and accuracy requirements on commercial electric charging stations. County inspectors will now be able to check the accuracy of electricity sold as vehicle fuel, just as they have done for decades with traditional fuels sold at gas stations. And our work is only growing in importance with **34,000 electric charging ports available for the 425,000 electric vehicles (EV)** registered in the Golden State, and more every day.

DMS investigators helped collect 45,000 fabricated weight tickets as evidence for a criminal case filed by the Office of the Attorney General. **A Sacramento-based recycler falsely submitted \$80 million worth of processor invoices to CalRecycle** for payment of California Redemption Value (CRV) materials. The resulting plea agreement included \$30 million in restitution and 7 years of jail time.

ACCURACY = HONESTY



STAYING ONE STEP AHEAD of FOREIGN ANIMAL DISEASES

Throughout the COVID-19 pandemic, the Animal Health and Food Safety Services (AHFSS) Division has continued to protect California's animal health and food safety by preventing, detecting and responding to livestock diseases, natural disasters and related threats to agriculture.

Staff support, training and exercises have predominantly moved to online/virtual formats - but our vital field work, such as investigations, carries on.



**We may look a bit different,
but the work continues!**



Cattle health



58,000+

head of cattle
tested in 2021 for
Tuberculosis



648,377

RFID tags were applied
to cattle to provide safe,
easy, accurate identification

RFID tag readers
distributed:

75



**CALIFORNIA
REMAINS
FREE FROM
BOVINE TB
AND
BRUCELLOSIS**

Beef and dairy female cattle
vaccinated for
Brucellosis:

940,000



FOREIGN ANIMAL DISEASE

FAD

INVESTIGATIONS



632

FAD cases were investigated

More than

95%

of the cases were swine

210

Non-FAD animal disease
investigations performed on
various species both large and
small, furry and feathered!



CHATF

Cattle Health Advisory Task Force

A vital component of CDFA's oversight of animal health is the daily, integral involvement of ranchers and other stakeholders. CHATF advises the CDFA Secretary on the control and management of cattle health diseases, as well as the effectiveness of CDFA's bovine disease control or eradication programs. Members are appointed by the Secretary. The task force held three meetings in 2021.



Veterinarians!

374

**veterinarians were accredited
in California in 2021**

272

**veterinarians were approved
for Trichomonosis testing**



RHD

Rabbit Hemorrhagic Disease

RHDV2 continues to spread in domestic, feral domestic, and wild rabbits in North America since March 2020.

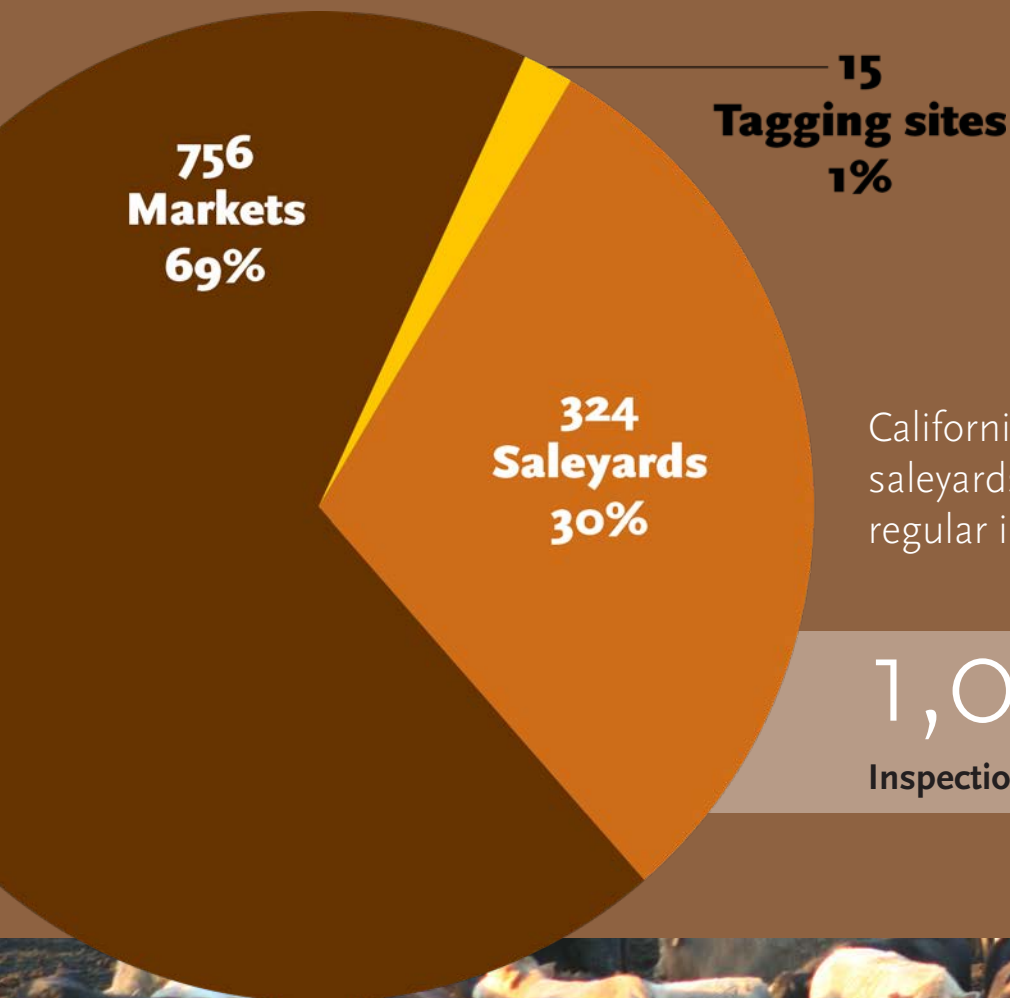
Big News for 2021:

A new vaccine for RHD received Emergency Use Authorization in September 2021 here in the United States.

CDFA continues to investigate cases affecting domestic rabbits.



LIVESTOCK CONCENTRATION POINT INSPECTIONS IN 2021



95

RHD investigations
resulted in

54

positive domestic
premises in 2021

California's livestock markets, saleyards and tagging sites undergo regular inspections year-round.

1,097

Inspections were conducted in 2021



Animal Disease Traceability

CDFA continues to protect our producers and consumers and minimize the spread of disease by **monitoring animal movement into the state**. Here's a sampling of the stats and activities we performed in 2021.

CALIFORNIA



26,388,455

individual animals
crossed through
California's border stations

8,506

permits were issued
to allow

858,126

animals into California
(Not all animals entering
are required to have permits)



155

border crossing
investigations were
performed statewide
by our officials

1,097

inspections of California
markets, saleyards
and tagging sites



21,125

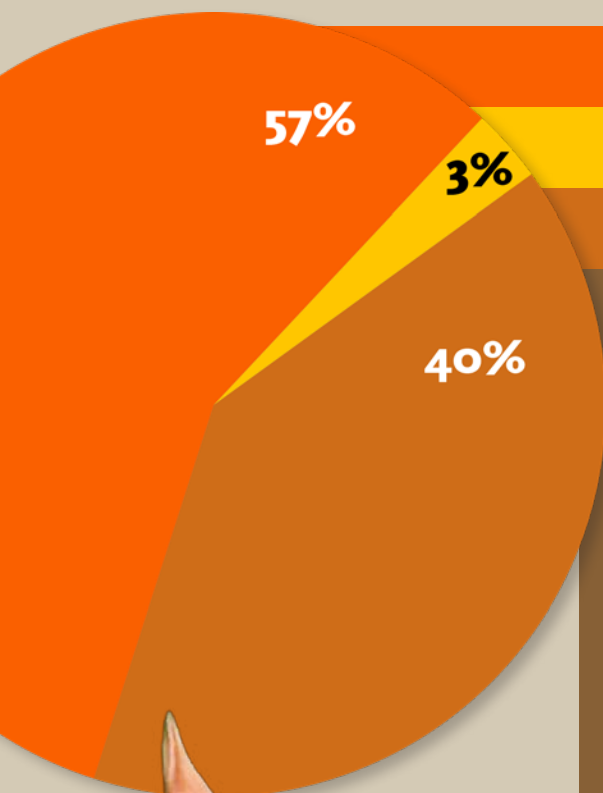
Certificates of
Veterinary Inspection
were received and reviewed

946,447

animals were moving
on these certificates



EQUINE HEALTH



West Nile Virus (WNV)

Equine Infectious Anemia (EIA)

Equine Herpes Virus-1 (EHV-1)

EQUINE DISEASES REPORTED FY 2020-21

35

equine infectious disease cases were reported in 2021

20

of these cases were due to West Nile Virus

More than

22,500

"Coggins" tests for Equine Infectious Anemia were processed and reviewed



Equine Medication Monitoring Program

122,823
horses assessed

1,040
events registered

734
events held

CDFA'S Equine Medication Monitoring Program tests equines in public shows, competitions and sales to help ensure the integrity of these events through the control of performance and disposition enhancing drugs and permitting limited therapeutic use of drugs.



SHEEP & GOAT HEALTH

Sheep and goat identification and
compliance at livestock markets:

443 inspections

14 markets

1,364 entry permits issued
for goats and sheep

.162,296 Scrapie tags
distributed



DID YOU KNOW?

There are approximately

650,000

sheep and lambs in California - and up to

150,000

are in the Imperial Valley to graze each winter



AVIAN HEALTH

Routine, rigorous inspections and testing protect our poultry producers and consumer health

7,066

sick birds submitted for testing by owners

2,453

tests conducted on those birds

2

Low-pathogenic avian influenza (LPAI) cases detected and eliminated on one farm and in one store selling poultry

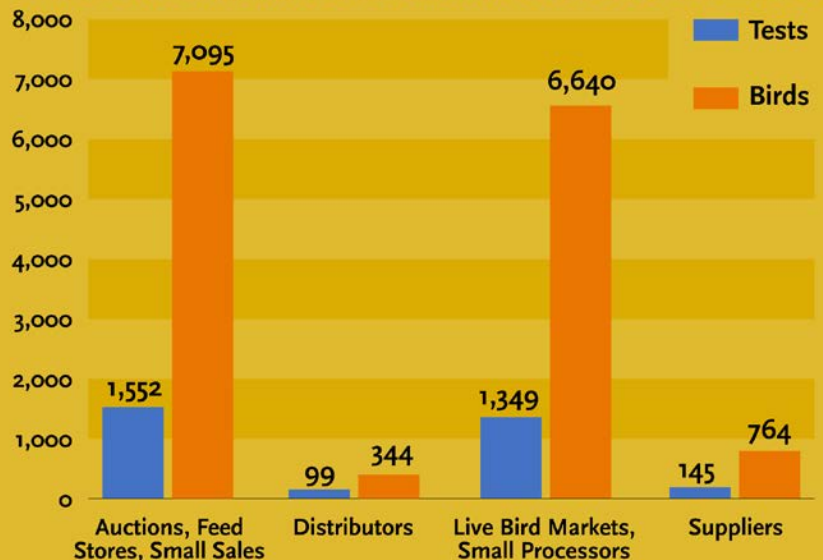
553

feed store inspections completed and outreach provided

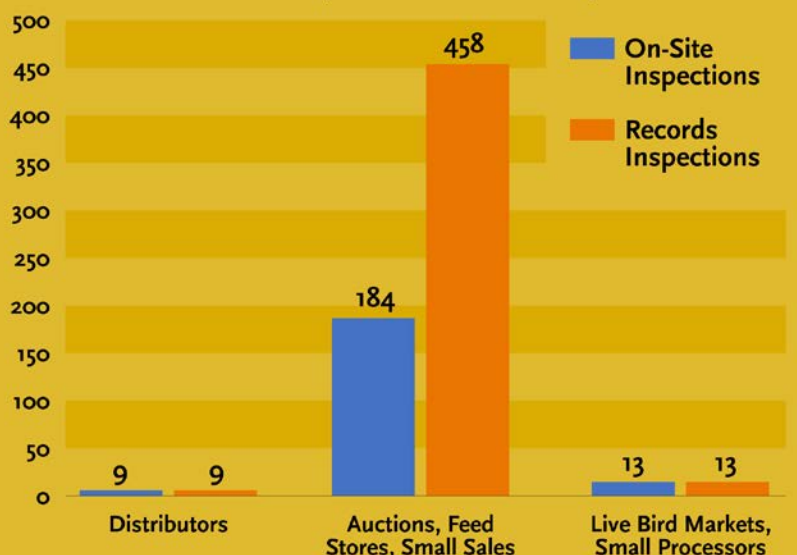
125,000 avian health calendars distributed statewide



LIVE BIRD MARKET SYSTEM TESTING IN 2021



2021 INSPECTIONS: LIVE BIRD MARKETS, DISTRIBUTORS, SUPPLIERS





ESTABLISHED JUNE 1, 2020

13,000 Birds tested
1,237 Total outreach visits
741 Total sampling events
33 Necropsy pick-ups
162 Sick bird hotline calls
343 Instagram followers
155 Facebook followers

Targeted outreach to improve avian health

Reducing the incidence and likelihood of large-scale avian disease outbreaks is a big job. The core strength of the California Avian Health Education Network (CAHEN) is that it grew out of the lessons learned from our state's prior outbreaks, so it is literally built on direct, relevant experience that Southern California bird owners can relate to.

We serve across eight southern California counties collaboratively with the CDFA Avian Health Program, UC Davis California Animal Health & Food Safety Lab System (CAHFS), and the UC Cooperative Extension Game Fowl Wellness Program.

Our goal is to educate through community outreach and social media, surveillance testing for early detection, and rapid response to foreign animal diseases.



33 CDFA 2021

48,741 avian health materials distributed
104 Facebook posts published
102 Instagram posts published
109,020 avian calendars distributed





SWINE HEALTH

California remains
free from
Swine Brucellosis
and
Pseudorabies

300

swine tested negative for
Classical Swine Fever in 2021

CDFA conducted **95**
"garbage feeder" inspections
in 2021. To prevent potential
disease spread, all meat
waste must be sterilized prior
to being fed to swine.

Staff performing a garbage temperature check





THE FUTURE OF FOOD SECURITY

The California Secure Food Supply (SFS) Program is the shield of enhanced biosecurity

that protects California agriculture during a foreign animal disease or notifiable animal disease outbreak and provides a pathway to economic survival for the industry through conditions that provide safe, permitted movement of animals and animal products.

The SFS Program is designed to allow business operations that are unaffected by the disease (i.e. negative for the disease), but located within a quarantine area, to maintain some business activities to protect their economic viability.

BIOSECURITY TEMPLATES COMPLETED

Poultry Farm Comprehensive Biosecurity Plan Template is completed and ready for use by producers!

BIOSECURITY TEMPLATES IN DEVELOPMENT

Dairy Farm Enhanced Biosecurity Plan Template
Feed Mill Biosecurity Plan Template

BIOSECURITY TEMPLATES FOR FUTURE DEVELOPMENT

Broiler Biosecurity Plan Template
Swine Biosecurity Plan Template
Beef Biosecurity Plan Template

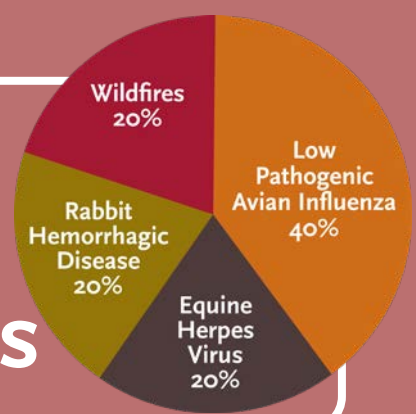


The California Animal Response Emergency System (CARES) has been hard at work this past year responding to wildfires.

CARES deployed highly trained staff to swiftly respond to outbreaks of animal diseases and human-caused natural disasters throughout the state.

In 2021, Emergency Preparedness and Response (EPRS) personnel were deployed for

995 days



1,800+ animals were rescued from the El Dorado County Caldor Fire in 2021.

EMERGENCY PREPAREDNESS & RESPONSE



EMERGENCY PREPAREDNESS AND RESPONSE SECTION

Protecting Livestock and Other Animals in Emergencies

CDFA's Animal Health Branch Emergency Preparedness and Response Section (EPRS) provides leadership for emergencies that fall under the jurisdiction of the Animal Health and Food Safety Services Division.

Primary Focus Areas:

Animal Disease Outbreaks

California manages foreign and domestic animal disease outbreaks in Unified Command with the United States Department of Agriculture (USDA) Veterinary Services. EPRS oversees development of a Blended Incident Management Team, with leadership representation in command and general staff from both CDFA and USDA personnel.

Natural Disaster Response

EPRS is responsible for the California Animal Response Emergency System (CARES), a statewide emergency management operational concept supporting animals in disasters.



EPRS PROGRAM

Emergency Animal Disease

CARES

Planning

Training

Exercise

Analysis

Outreach

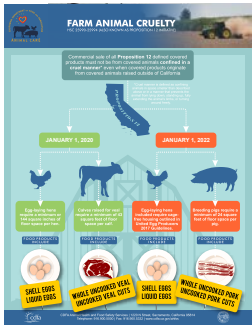
Response

In addition to EPRS' emergency response duties, staff in 2021 also completed the state's "Best Practices for Pets on Public Transportation" (PUC 99166), and conducted a survey to assess the resources of local governments and volunteer organizations in terms of animal services.



Animal Care Program Team Ramping Up for Proposition 12 Implementation and Beyond

OUTREACH & EDUCATION DEVELOPMENT



Proposed regulations to implement Prop. 12 were officially published in May for public comment and re-published with responsive amendments in December for additional comments.



Over 650 public comments were submitted and subsequently reviewed by Animal Care Program personnel.



The Animal Care Program manager has hired key personnel for the implementation of Prop. 12 prior to the January 1, 2022 effective date. There are future plans to expand program staffing.



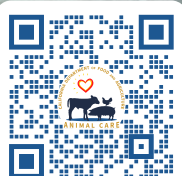
Animal Care Program staff continue to work on the development of internal software (ET System) and external resources for the public (CDFA web page, social media pages, subscription lists, etc.).



ANIMAL CARE TEAM BUILDING & EDUCATIONAL SITE VISITS



**VISIT US
ONLINE**



ENSURING MILK PRODUCT SAFETY FROM DAIRY FARM TO CONSUMER

CDFA's Milk and Dairy Food Safety branch protects California consumers by ensuring that milk, milk products and nondairy alternative products are safe, wholesome and properly labeled. That means food safety inspections from farm to table including dairy farms, bulk milk tanker trucks and milk processing plants statewide.

1,300 Truck Inspections
900 Driver Evaluations

BULK MILK TANKER TRUCKS

1,205 Food Safety Inspections
4,114 Samples Collected and Tested

DAIRY FARMS

3,602 Food Safety Inspections
1,713 Pasteurizer Equipment Checks
8,741 Samples Collected and Tested

PROCESSING PLANTS

1,472 Labels Reviewed
3,242 Certificates to 35 Countries

LABEL REVIEWS & EXPORT CERTIFICATES



Pierce's Disease

BUILDING ON 20 YEARS OF RESEARCH & PROGRESS

Glassy-winged
sharpshooter found
in a residential
neighborhood

Research, Response, Outreach: A Balanced Approach

The PD/GWSS Board continues to invest in research and outreach not only on the namesake disease and insect vector but also on other designated pests and diseases of winegrapes. Among others this includes leafroll, fanleaf, and red blotch diseases of grapevines, mealybugs, and most recently the spotted lanternfly (see p. 41).

2021: Responding to a local infestation in Solano County

A local infestation of the glassy-winged sharpshooter (GWSS) was detected in fall 2021 in a residential area of Vacaville in Solano County. The pest is primarily a threat to grapevines because it can spread a fatal bacterium that cause Pierce's disease (PD), so it is a critical concern for the area's famed vineyards. Working with the Solano County Agricultural Commissioner's Office and others in the region, CDFA is proceeding with eradication efforts.

RESEARCH FUNDING

\$2.1 million
for 12 projects in 2021

\$640,000
for 7 continuing
projects

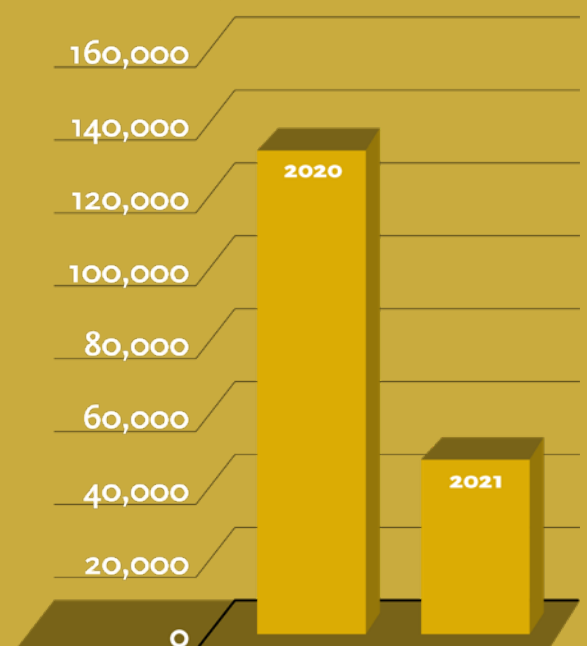
\$49.5 million
invested in research
since 2001



Area-Wide Management Programs

The area-wide management programs coordinate GWSS management efforts in large, agriculturally diverse grape and citrus production areas where GWSS is present. In 2020, GWSS trap finds increased in the Southern San Joaquin Valley, likely due to a combination of warmer weather, an increase in organic citrus acreage, and reduced treatments in previous years due to budget constraints. With additional support from the PD/GWSS Board and the Consolidated Central Valley Table Grape Pest & Disease Control District in 2020, coordinators facilitated the treatment of an additional 8,800 acres in Tulare County and 10,700 acres in Kern County to target overwintering GWSS in these areas.

GWSS Trapped by Year Kern County Area-Wide Management



Staying Ahead of the Spotted Lanternfly

This "Pest Alert," along with videos, brochures, posters and other outreach materials and efforts, tell the story of a pest that has not made its way to California yet, but is considered "a threat to many important commercial crops and affects our enjoyment of the outdoors." CDFA's Pierce's Disease Control Program is working with the PD/GWSS Board to roll out this campaign to raise awareness.

PEST ALERT



Keep Spotted Lanternfly Out of California



LIFE STAGES OF THE SPOTTED LANTERNFLY (*Lycorma delicatula*)



Egg Mass
September - June



Early Nymph
April - July



Late Nymph
July - September

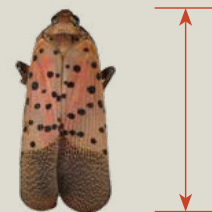


Adult
July - December

PROTECT CALIFORNIA AGRICULTURE

Spotted Lanternfly (SLF) is a threat to many important commercial crops and affects our enjoyment of the outdoors. The pest feeds on a wide range of plants and trees, with damage seen in vineyards, nurseries, and urban and rural environments.

Spotted Lanternfly is an invasive planthopper spreading in the U.S. since it was first discovered in Pennsylvania in 2014. The pest feeds on over 100 different plant species, favoring tree of heaven and grape where it causes serious damage such as oozing sap, curling, dieback, and plant death. It also excretes lots of honeydew when it feeding, leading to the growth of black sooty mold.



Actual Size 1 inch

HLB: Protecting California Citrus from a deadly disease now and in the future

Citrus is an iconic California crop as well as a staple in residential yards, parks and other landscapes. It's part of what makes the Golden State golden. The Citrus Pest and Disease Prevention Division's (CPDPD) mission is to protect California citrus from invasive pests and diseases.

COVID-19 Response

In the CPDPD's first full year as a stand-alone division, it had to adjust operations to effectively function in a COVID-19 environment by maximizing telework for office staff, staggering work schedules for field staff, conducting all on-site residential activities by appointment and conducting virtual public meetings for residents, as well as Committee and subcommittee meetings. Transitioning to a virtual platform increased resident participation, allowing for effective education on how residents can protect their citrus trees from HLB.

Suppressing Asian Citrus Psyllid Populations

In 2020, the program conducted 83 treatments in response to ACP detections in areas of the state that are not considered generally infested with ACP. Treatments were conducted in a 50–400-meter area around the detection site. In response to HLB detections the program conducted 190 treatments in the 250-meter areas around HLB tree detections (Southern California).



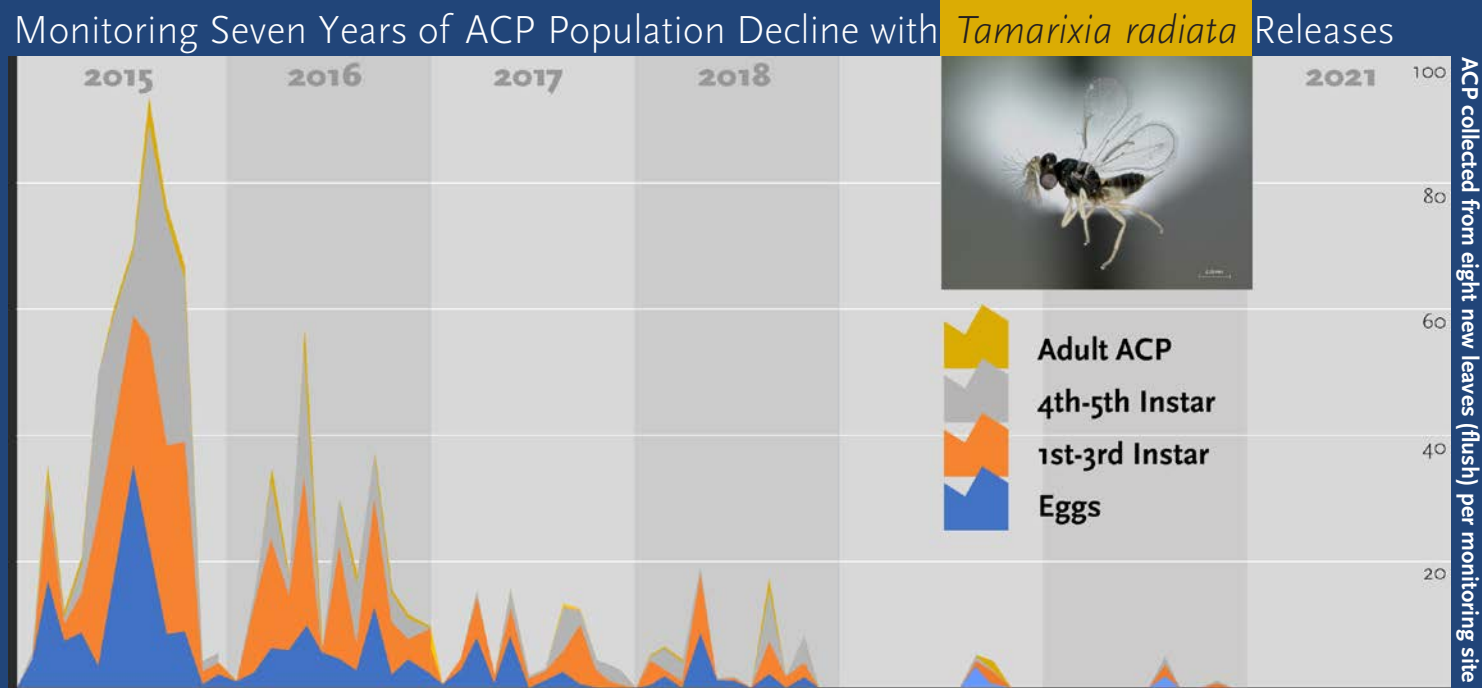
The Asian citrus psyllid measures just one-eighth of an inch, but it packs a punch: the insect can spread the bacteria that causes huanglongbing.

The CPDPD has been rearing and releasing biocontrol agents for ten years. To date, 21 million *Tamarixia radiata* have been released in 14 counties of California, Mexico and Arizona - resulting in dramatic declines in all life stages of ACP.

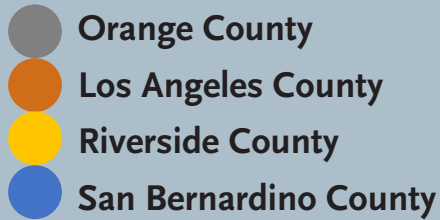
ACTUAL SIZE

BIOCONTROL

Tamarixia radiata Releases



HLB-Positive Trees by County



What We're Protecting:

*California's
Citrus Industry*



*292,000 acres
of citrus production*



3,900 farmers



\$3.4 billion in sales



*\$7 billion in
economic revenue*



22,000 jobs



**488 HLB-POSITIVE TREES
WERE CONFIRMED AND REMOVED IN 2020**

Detecting and Eradicating HLB-Positive Trees

A total of 104,571 plant and entomological samples were collected in 2020 and a total of 488 HLB-positive trees were confirmed and removed in 2020.

Improving Data Technology, Analysis and Sharing

In 2020, the Division implemented several science-based changes to program activities, including reducing the delimitation survey and treatment area around an HLB detection area from 400 meters to 250 meters and reducing the areawide treatment areas around commercial groves from 400 to 250 meters. In both cases, the efficacy of the activities remained between 90-95 percent and the associated time and cost were reduced by almost 50 percent. Additionally, the program worked with several growers to approve grate cleaning to minimize the risk of stems and leaves being left in the bins.

Pandemic, wildfires show the value of department's partnership with California's Agricultural Commissioners

Since March 2020, the COVID-19 pandemic has created many challenges for California's agricultural industry and for our farmworkers. One immediate issue that came to bear was the shortage of personal protective equipment (PPE) necessary to impede the spread of the COVID-19 virus. PPE such as face coverings, gloves and hand sanitizer were almost impossible to procure through normal commercial channels, and the shortages hit hard for our impacted farmworkers, packing plant staff and other vulnerable populations.

The summer after COVID-19 began, California was struck by numerous, severe wildfires that caused the air quality to reach unhealthy levels for outdoor farmworkers. With N95 respirators already in short supply because of the pandemic, these farmworkers were left in a doubly vulnerable position.

To address the desperate need for PPE, CDFA - in coordination with the California Governor's Office of Emergency Services - procured large quantities of protective gear that were shipped to the County Agricultural Commissioners for distribution to farmworkers and the agricultural industry. The commissioners and their county staff distributed the equipment to farmworkers in their counties. In the process, they also developed and strengthened partnerships with community-based organizations, farm bureaus, grower associations, and advocacy groups.

*PPE Distributed through
California's Agricultural
Commissioners
since March 2020*

21,553,048

SURGICAL MASKS

2,512,900

CLOTH MASKS

7,486,320

N-95 MASKS

2,367,000

PAIRS OF GLOVES

585,933

HAND SANITIZERS



Persistent Protection

Safeguarding Farms, Gardens from Fruit Flies Takes Daily Dedication

The flies we see buzzing around don't do the damage; it's the larval (maggot) stage of fruit flies such as Mediterranean fruit fly, Mexican fruit fly and oriental fruit fly that can tunnel around inside most of the fruits and vegetables grown in our state, rendering them unfit for consumption.

These exotic pests have not become established in California due to (1) strict federal exterior and state interior quarantines, (2) a robust pest-detection program, and (3) effective eradication programs whenever an infestation is discovered.

Federal and state quarantines protect against the entry and spread of exotic fruit flies by requiring strict adherence to treatment and inspection procedures for hosts. Smuggled or illegally imported fruit is the most common pathway for fruit flies to enter California.

The California Department of Food and Agriculture (CDFA) works in concert with most of the County Agricultural Commissioners to deploy and maintain over 63,000 detection traps statewide just for exotic fruit flies.

FRUIT FLY DETECTIONS IN 2021:

60

Invasive fruit flies were detected in traps, including

8

eradication projects and

6

species

2

quarantine zones were implemented as a result



Hanging a
McPhail trap

PRETTY DANGEROUS

Photo: USDA Forest Service / Bugwood.org

In 2021, CDFA and its partners detected:

139 Japanese beetles in "detection" traps and
13 more in "high-hazard" traps

*They aren't all
"ugly bugs."*

In fact, some are downright pretty.

The Japanese beetle, for example, would catch compliments as a jeweled brooch at a Victorian ball.

But when we mistakenly transport this little beauty thousands of miles from from its native habitat to a place as temperate and hospitable as California - a place without any of this insect's naturally evolved predators or parasites - things can get, well, *ugly*.

The beetles "skeletonize" leaves (see photo) by eating around the larger veins. They also feed on a remarkable range in excess of 300 plants in 79 plant families, from tree fruits to garden/produce aisle crops, grasses, ornamental shrubs, vines, and trees.

The primary pathway for this particular pest is aircraft cargo holds, so our "high-hazard" trapping arrays are mainly concentrated around airports and in surrounding communities.

First Line of Defense

California's Border Inspection Stations

A spotted lanternfly (SLF) egg mass on the undercarriage of a commercial truck.

A gypsy moth (GM) egg mass on the wall of a moving van. Asian citrus psyllids (ACP) on a potted citrus plant in the trunk of a passenger vehicle. A mass of invasive zebra mussels clogging the ballast of a fishing boat...

Any of these or hundreds of other invasive species could cause a costly, dangerous, disruptive infestation in California. CDFA's border inspection stations - 16 of them, strategically located along major vehicular routes into the state - provide an efficient way to prevent infestations; protect crops, livestock and the environment; and save taxpayers and our systems of commerce tremendous costs and interruptions from quarantines and eradication efforts.

2 MILLION+ VEHICLE INSPECTIONS

1,340 INTERCEPTIONS

of quarantine-rated pests and disease-infested materials in 2021





Plant Health & Pest Prevention Services

• Plant Pest Diagnostics Center: World-class science at CDFA

The CDFA's Plant Pest Diagnostics Center (PPDC) has remained open throughout the pandemic, providing essential diagnostic services to the department, the counties, and the agricultural industry by identifying plant pests and diseases in support of our pest detection and exclusion programs. Among the important pests and diseases identified are the Oriental fruit fly and other pest fruit flies, Huanglongbing and other bacterial diseases, and many more. The PPDC also tested samples to meet phytosanitary certification requirements that enabled California growers to ship agricultural products or planting materials nationally and internationally.



CDFA entomologists identified more than 50 A- or Q-rated ants on bee trucks, including 13 that were infested with **the A-rated *Camponotus floridanus***, which can form colonies inside buildings where they damage the wood, almost like termites. (Photo by Kevin Williams, CDFA)



The **glassy-winged sharpshooter** is native to the southern United States and is established in Southern California. It is a serious threat to the viticulture industry because it vectors the plant-infecting bacterium, *Xylella fastidiosa*, causing Pierce's disease in grapevines.

This semislug *Parmarion martensi* is commonly intercepted in plant shipments by canine inspection teams. It can be a devastating agricultural pest but this semislug is also a vector for rat lungworm, making it a public health risk. (Photo by Bernard DuPont, Wikimedia Commons/CC-BY-SA-2.0)



The **Asian citrus psyllid** is invasive to California, vectoring the bacterium responsible for a disease known as Huanglongbing (HLB), one of the most serious diseases of citrus in the world.



Protecting agriculture & environment from pests, diseases begins with scientific identification



Hundreds of **invasive shot hole borers** were identified at PPDC in 2021 as a result of a massive deployment of sticky traps in Los Angeles County, and from smaller-scale surveys in adjacent regions. (Image: J. Hulcr, University of Florida)



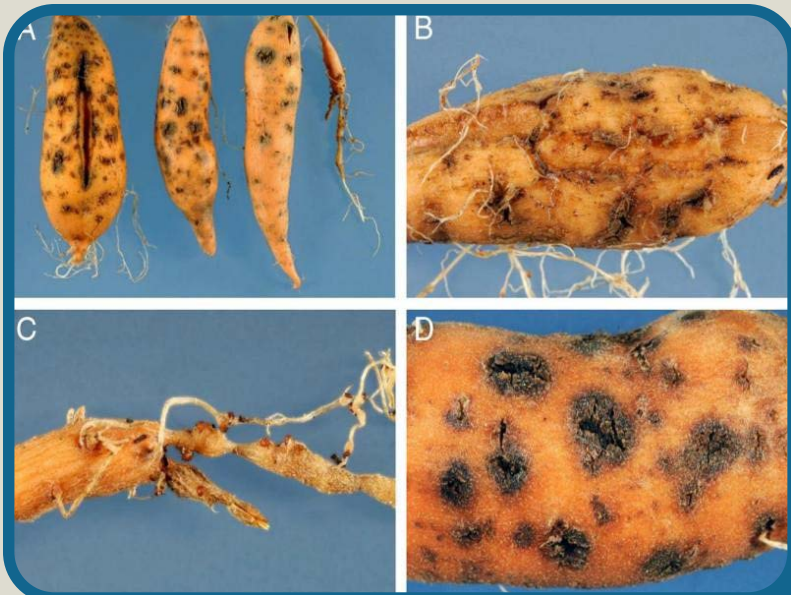
The cotton seed bug is a globally important cotton pest that CDFA has closely monitored since an initial detection here in 2019. In 2021, there were few detections of this pest, including a first detection in San Diego County. (Image courtesy of Julieta Brambila, USDA-APHIS-PPQ)

Vine mealybug is a serious pest of grapevines in California because it **produces honey dew** that contaminates grape clusters with mold and degrades the value of the crop, reduces quality in wine production, and is implicated in the transmission of grape leafroll viruses.

Pink hibiscus mealybug is originally from South Asia. It is highly polyphagous, feeding on the stems, leaves, buds, fruit, and roots of plants in more than 200 genera in over 70 plant families. Adult females have been identified from nurseries in Los Angeles County and intercepted by canine teams on incoming fruit originating in Florida, Tennessee and Texas.



Nematology: Powerful microscopes help us get to the root of the problem



The A-rated reniform nematode *Rotylenchulus reniformis* was identified at PPDC in 2021, found by CDFA's canine teams in Passion Fruit from Puerto Rico.

The A-rated guava root-knot nematode, *Meloidogyne enterolobii*, a resistance-breaking species, was identified at PPDC in 2021 after interception on Cuban oregano (Mexican mint) and palm trees from Florida. (Photo: this nematode on sweet potato)

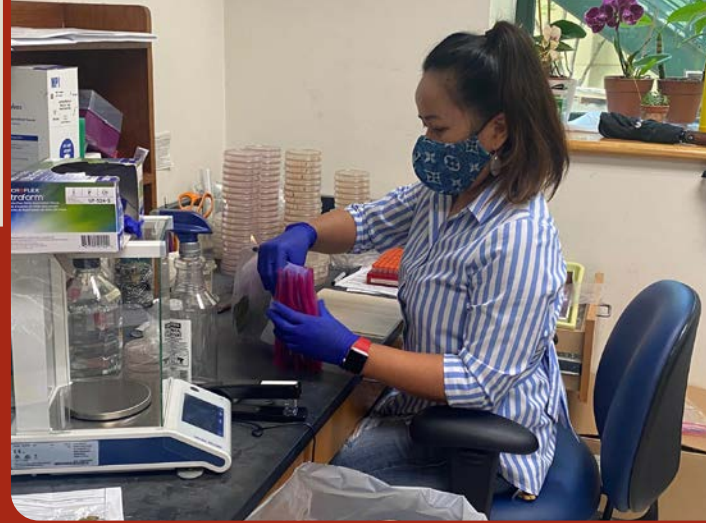


Phytosanitary inspection: Keeping exports moving – without pests, diseases on board

Since April of 2021, grapevines (*Prunus* species) and berries have been **sampled and tested to fulfill phytosanitary requirements** for international export. For grapevines and *Prunus* spp combined, a total of 13, 694 tests were performed looking for 106 different pathogens, including Pierce's disease and Phytoplasma species and well as an extensive list of viruses.

Sudden Oak Death: Maintaining vital nursery sampling during COVID-19

During the pandemic, PPDC employees **continued to process nursery samples** for the *Phytophthora ramorum* testing program. This federal testing program requires nurseries with a history of *P. ramorum*, as well as nurseries within California's quarantined counties, to test stock biannually for the pathogen. The PPDC works with county agriculture departments to test plants, potting media, and water to help facilitate the movement of California's nursery stock throughout the country.



***So, to recap:** a lot of very smart people,
a few robots and some serious chemistry,
all running day-in and day-out
to protect California crops.*

Did you know citrus trees are evergreen? So is our lab staff's vigilance in detecting HLB

Throughout the year, the Plant Pathology Lab processed and tested a monthly average of 5,200 citrus samples for huanglongbing (HLB), a fatal disease of citrus. That's a lot of leaves, and it takes a highly trained team to keep this technological marvel moving.

To detect the huanglongbing (HLB) bacterium (*Candidatus Liberibacter asiaticus*), a high-throughput method using robotic liquid-handlers is used to extract DNA from the citrus leaves.

The DNA is then tested using a highly sensitive technique called the real-time polymerase chain reaction (qPCR) that can detect and amplify DNA specific to the target pathogen.



SILVER LININGS & GOLDEN OPPORTUNITIES

COVID-19 Chronicles

In addition to masks and virtual meetings and all of the other workplace and workload changes that came with the pandemic, **CDFA's lab also began receiving noticeably more plant samples from concerned homeowners.**

Why? Because throughout the pandemic, they have been home more, gardening more, and noticing more plants with more problems.

Any time we can get consumers to take a closer look at plants and crops and food – and see CDFA as the place to go for help – well, that's a silver lining at the very least.



Receiving samples and fielding calls at the lab's front desk

Inspection Services Division ensures the future of fresh produce

ISD's Inspection and Compliance Branch (ICB) inspects what our farmers grow to ensure quality, maturity, size, packaging and labeling meet industry expectations. ICB performs food safety inspections and verification audits to ensure good handling and agricultural practices that contribute to a safe food supply.

Shipping Point Inspection staff inspected more than 25 types of fresh produce, totaling more than:

276,448 lots & 6 billion lbs.

including

**129,998 lots
3.97 billion lbs.
of almonds**

**30,000+ lots
14.2 million lbs.
of table grapes**

**78.8 million lbs.
of kiwi**

**16,000+ lots
of tomatoes**



1,571
Inspections

129
Complaints
Investigated

514
Samples for
Pesticide Residue
Testing



Standardization and county staff inspected 137,217 lots / 14.2 million containers of produce through a cooperative agreement with 18 counties.

Imperial County Inspector David Claverie performs maturity tests in a honeydew melon field.



Photo: All rights reserved by CA Grown/BCMA

National Farmers' Market Week

Inspection Services Division Director Natalie Krout-Greenberg recognizes the importance of California Certified Farmers' Market (CFM) producers and their work to deliver the freshest and highest quality products directly to the public in a video inviting people to visit farmers' markets during National Farmers' Market Week 2021 in August. View the video at https://youtu.be/NV_aAuVGGPA.



A Produce Safety Program inspection during strawberry harvest



Produce Safety Program helps CA farmers understand federal Produce Safety Rule

While working to help California produce farmers understand how to comply with the federal Food Safety Modernization Act (FSMA) Produce Safety Rule, the Produce Safety Program inspected 175 farms and performed 40 On-Farm Readiness Reviews.



OCal helps cannabis farmers with comparable-to-organic label

The OCal Cannabis Certification Program establishes and enforces comparable-to-organic cannabis standards. The OCal Program will ensure that cannabis products bearing the OCal seal have been certified according to consistent, uniform certifying standards. OCal officially started on July 14, 2021, and quickly began accepting applications for public and private entities interested in being certifying agents.



FARMERS' MARKETS

CDFA's Direct Marketing Program

2,427

Certified Producer
Certificates issued

627

Certified Farmers' Markets
operating in California in 2021



Direct Marketing Southern Supervisor Dominic Hickman conducts a routine inspection of a Certified Producer at the Downtown Escondido Certified Farmers' Market in San Diego County in summer 2021.

CALIFORNIA CITRUS PROGRAM



In 2021, this program oversaw county inspections of

3,372 lots
3.63 million
containers

of Navel oranges

and performed

3,415
maturity tests

AVOCADO INSPECTION PROGRAM

In 2021, this program certified

306 million
pounds

of avocados

and performed

9,834
size / count tests

550
maturity tests on California avocados

127
maturity tests on imported avocados



California Agricultural Neighbors interim report, webinar series benefit farmers by promoting neighbor-to-neighbor best practices

A summer 2021 webinar series hosted by the California Farm Bureau Federation in partnership with the Monterey County Farm Bureau and the California Department of Food and Agriculture (CDFA) about best food safety practices for agricultural neighbors is now available online. The recordings include members of the California Agricultural Neighbors (CAN) group discussing the CAN interim report, "California Agricultural Neighbors: Neighbor-to-neighbor best practices to enhance localized food safety efforts."

CAN membership includes representation from the agricultural production community (leafy greens, cattle ranching, viticulture, compost), academia, associations (industry, consumer/retail) and government (local, state, federal). CAN was formed in response to continued outbreaks of pathogenic E. coli O157:H7 associated with leafy greens in California's Salinas Valley.

CAN provides a roundtable forum to foster collaboration and discuss enhanced neighborly food safety practices when agriculture operations are adjacent to one another.

View the CAN webinar series on the CDFA YouTube channel:
<https://www.youtube.com/user/CDFAtoday/videos>

CAN Webinar

July 7, 2021

Off-farm factors that may affect STEC movement on the landscape

In this discussion, animal agriculture biosecurity practices will be shared to address practical, science-based solutions that can help reduce pathogen transference in the environment among neighboring agriculture operations. In addition, an overview of management practices will be shared by a local Salinas Valley cattle producer and an expert will shed light on regional climate and weather factors and how these may be important factors related to food safety.

Changes in Climate and Implications for Agriculture in California's Central Coast Region

Dr. Tapan Pathak, UC Merced, and Dr. Lauren Parker, UC Davis

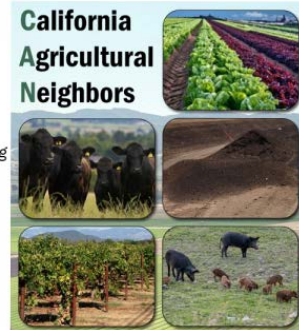
Types and Seasonality of Cattle Operations in the Salinas Area

Scott Violini, Monterey County Cattlemen's Association

Best Practices for Farm Biosecurity - Pathogen Prevention

Dr. Alexi Haack, CDFA

California Agricultural Neighbors



Neighbor-to-neighbor best practices to help enhance localized food safety efforts

Interim Report - June 2021



CALIFORNIA DEPARTMENT OF
FOOD & AGRICULTURE



Fertilizing Materials Inspection Program benefits farmers by making sure fertilizing materials meet standards

The Fertilizing Materials Inspection Program (FMIP) helps ensure fertilizing materials are safe and effective, and meet quality and quantity standards. In FY 2020-21:

FMIP received report of

**5.45
MILLION TONS**

of fertilizing materials
sold in California.

FMIP reviewed and
registered labels for

1,386

organic input material
products and

4,399

conventional fertilizer
products for

841

in-state licensees and

977

out-of-state licensees

FMIP obtained 966 fertilizer samples for laboratory analysis from 10 manufacturers, including 563 conventional products and 403 organic input material products. FMIP investigated and resolved 139 complaints about products or manufacturers.

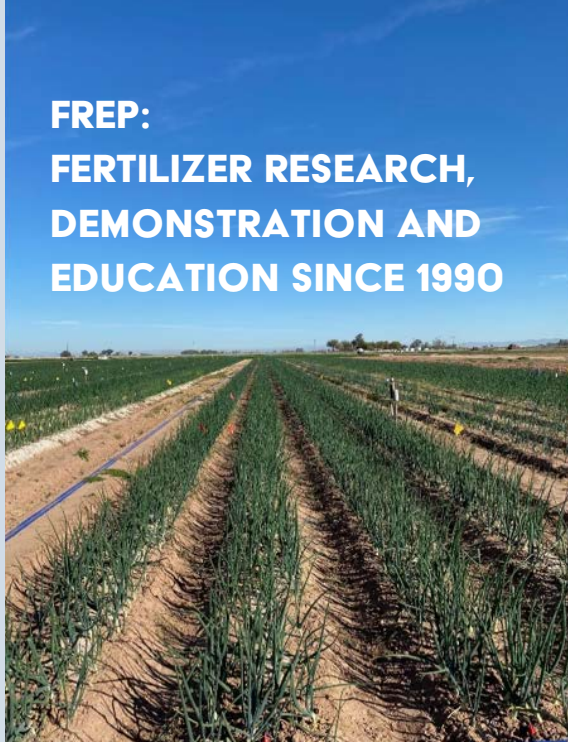
The hand of FMIP Special Investigator Justin Petty holds a sample during an Organic Input Material inspection audit at a worm farm in the Central Valley.

Inspection Services Division



A FREP-funded project, “Assessing Drip Irrigation and Nitrogen Management of Fresh Onions Produced in California Low Desert,” is pictured at the University of California Desert Research and Extension Center in Holtville. (Right) Accumulation of salt can be seen in the high irrigation treatment plots.

FREP: FERTILIZER RESEARCH, DEMONSTRATION AND EDUCATION SINCE 1990



FREP benefits farmers by funding research projects to detail most efficient and environmentally sound fertilizer use

In fall 2021, the Fertilizer Research and Education Program (FREP) awarded \$4.14 million in grant funding, including \$3 million for the University of California, Agricultural and Natural Resources (UCANR) to conduct targeted nitrogen and irrigation education and training in California’s Central Valley and Central Coast, and \$1.14 million for five research and education projects to advance growers’ understanding and implementation of improved nitrogen and irrigation management practices.

Each year since 1990, FREP has funded research, demonstration and education projects related to the environmentally safe and agronomically sound use and handling of fertilizing materials.

Visit the FREP Research & Project Database (<https://www.cdfa.ca.gov/is/ffldrs/frep/Research.html>).

2021 FREP-funded projects include:

- » Targeted Nitrogen and Irrigation Education and Training in California’s Nitrate Impacted Region
Doug Parker and Khaled Bali – UCANR

- » Nitrogen Fertilizer and Irrigation Best Management Practices for Low Desert Sudangrass Production Systems
Oli Bachie – UC Cooperative Extension, San Diego, Riverside and Imperial counties
- » Quantify and Model Overlooked Pathways of Nitrogen Loss from Organic Inputs Across Contrasting Soil Types
Timothy Bowles and Hannah Waterhouse – UC Berkley; Eric Brennan – USDA Agricultural Research
- » Nutrient Management and Irrigation Efficiency Outreach and Education for Latino and Southeast Asian Farmers
Carmen Carrasco and Tom Stein – American Farmland Trust
- » Distributed Water and Fertilizer Delivery for Minimizing Nitrogen Losses by Leaching and Volatilization
Teamrat Ghezzehei and Tapan Pathak – UC Merced; Khaled Bali – UCANR
- » Optimizing Nitrogen Fertilizer Concentrations in Vegetable Transplant Production
Lorence Oki and Bruno Pitton – UC Davis; Don Merhaut – UC Riverside



Trainer Larry Schwankle presents a course in the Irrigation and Nitrogen Management Training Program managed by FREP.



Commercial Feed Regulatory Program ensures animal feed and livestock drugs are safe and effective

In FY2020-21, CFRP processed reports of:

24.49 million tons
of feed sold in California

The program performed

44
routine California feed inspections and took

718
samples of feed products

including 351 samples for food safety and 367 for label compliance. The food safety samples included 29 heavy metal screens, 64 mycotoxin screens and 99 medicated feed samples.

Livestock Drug Program helps ranchers understand proper use of livestock drugs

In FY2020-21, the Livestock Drug Program performed 62 Drug Residue Assessments in cooperative agreement with the U.S. Food and Drug Administration to educate producers on the proper use of livestock drugs.

FREP Irrigation and Nitrogen Management Training Program benefitted 550+ growers

Beginning March 2021, FREP assumed full management responsibility for the Irrigation and Nitrogen Management Training Program for growers. The training program gives growers in the Central Valley the opportunity to self-certify Irrigation and Nitrogen Management Plan (INMP) Worksheets for their farming operations. In FY2020-21, there were six live webinar trainings, more than 550 grower participants and 1,371 growers renewed their eligibility to self-certify.

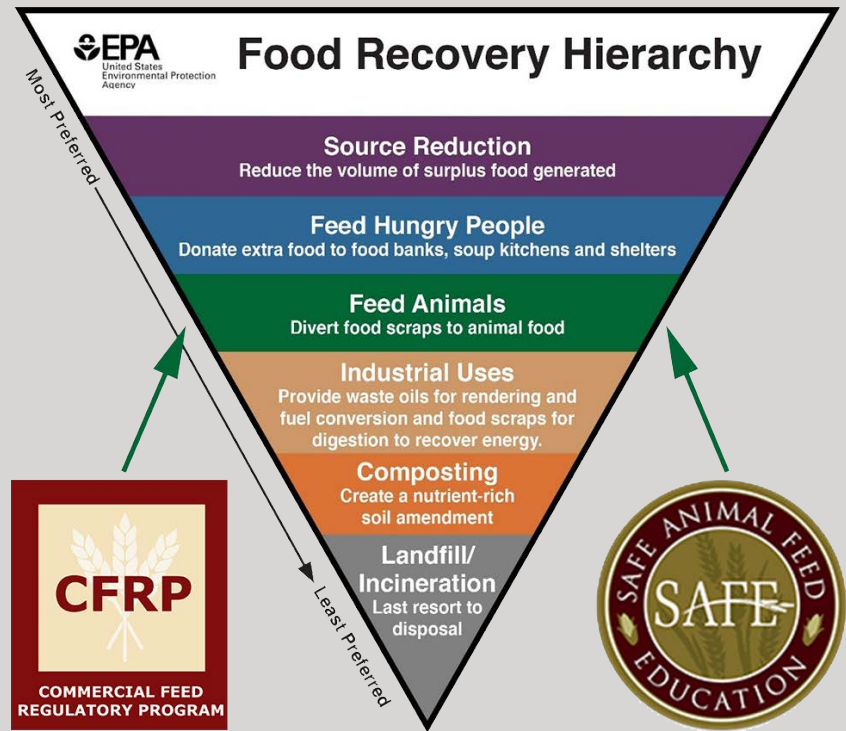
PASS IT ON:

FREP grantees benefit farmers via peer-to-peer learning

FREP grantees are required to participate in at least three outreach activities to increase awareness and provide opportunities for grower feedback and peer-to-peer learning. In FY 2020-21, FREP grantees participated as speakers in 60 events, with a combined audience of 2,750 growers and industry members.

Safe Animal Feed Education helps promote opportunities for food upcycling to animal feed

The Safe Animal Feed Education (SAFE) Program worked with the California live-stock feed industry to promote the use of organic food waste byproduct feed, and to ensure continued diversion of human food waste to animal feed is being accurately portrayed and is understood by fellow state agencies, food waste generators and the public at large. Click here for more information: https://www.cdfa.ca.gov/is/fldrs/SAFE_HumanFoodWasteDiversion.html.



Reducing antimicrobial resistance in animal agriculture

The Antimicrobial Use and Stewardship (AUS) Program released its second annual report (click here: https://www.cdfa.ca.gov/is/fldrs/pdfs/AUS_VFD_Summary_Report_2019.pdf) summarizing veterinary feed directive (VFD) information.

This report is broken into five main sections: background; VFD compliance; data summaries, tables and figures; data on 2019 manufacturing and distribution reports; and CDFA's future steps in working toward reducing antimicrobial resistance in animal agriculture.





Center for Analytical Chemistry Scientific Aid Jeremiah Roberts prepares wine grape samples to be analyzed.

Center for Analytical Chemistry (CAC) helps winegrape growers by quickly developing method to test for smoke taint

The Center for Analytical Chemistry (CAC) developed a method to analyze 148 wine grape samples for the presence of seven smoke-taint compounds between October 1 and December 1, 2020. This was in answer to the call of commercial labs and the industry to help with a backlog of samples in response to wildfires that occurred in many of California's wine grape-growing regions. In 2021, CAC built the necessary capacity and expertise to spring into action and receive wine grape samples for smoke taint analysis any time commercial labs are overwhelmed and request assistance.

CAC helps ensure farm safety through scientific analysis

18,477 laboratory analyses on

11,450 samples, resulting in more than

3 million data points in FY2020-21

The CAC Food Safety (FS) Pesticide Residue Program expanded its CDFA-Multi-Residue Screen method to add 51 more pesticides to the screen. With these new additions, the FS laboratories can now screen, detect and quantify 518 pesticide active ingredients.

State-of-the-art equipment in the Center for Analytical Chemistry laboratories includes this gas chromatography mass spectrometry device.



CAC develops new analytical methodologies that ensure farm safety and consumer confidence

In 2021, CDFA's Center for Analytical Chemistry (CAC) developed 13 new scientific methods for 30 state and county regulatory programs that are tasked with farm safety and ensuring that farm input materials meet the highest quality standards.



CDFA'S CENTER FOR ANALYTICAL CHEMISTRY DEVELOPED:

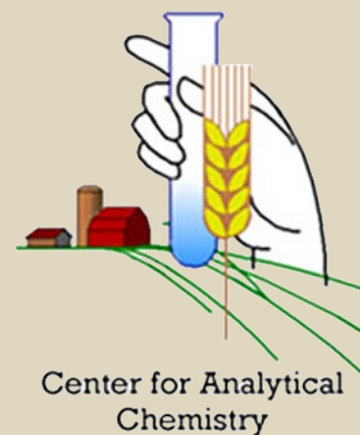
CAC's Agilent ICP-OES equipment used to analyze minerals in fertilizers

13 NEW SCIENTIFIC METHODS FOR
30 STATE & COUNTY REGULATORY PROGRAMS

CAC offers increased employee development for its scientists at the forefront of farm/food safety analysis

CAC offered 54 staff development opportunities, including instrument operation, hazardous waste training and project management in FY2020-21.

CDFA's Center for Analytical Chemistry (CAC) staff also actively participated in the department's Succession and Mentorship Program, initiated and run by the Division of Administrative Services. Many participants will become mentors in the next round of the program as well as be involved in the CDFA's Upward Mobility Program. These developmental opportunities are crucial in maintaining and improving the skill levels of scientists who are at the forefront of farm and food safety analysis.



Marketing Services

2021 Fairs & Expositions Accomplishments

- » Worked with the California Department of Public Health to approve guidance to the network of fairs to safely hold livestock events and fair events.
- » **Activated 15 fairgrounds** to serve as human and/or animal evacuation centers, fire camps, staging areas for first responders.
- » Initiated the installation of **automatic transfer switches and docking stations at 18 fairgrounds** to serve as resource centers during Public Safety Power Shutoffs (PSPS) events.
- » **Provided \$40.3 million in operational support** to District Agricultural Associations (DAAs) so that they could continue to provide service to their communities during the COVID-19 pandemic.
- » **Awarded \$9.06 million in SB5/Prop. 68 funds for Deferred Maintenance Grants Program** to improve facilities at 7 fairgrounds.
- » In FY 2021/22, will allocate to the entire Network of California Fairs **\$50 million in General Fund monies for operational support.**



Agricultural Statistics

In partnership with USDA's National Agricultural Statistics Service (NASS), CDFA's Agricultural Production Statistics office completed these projects in 2021:

- | | |
|---|--|
| » Grape Crush Reports; Preliminary, Final, and Errata reports | » Mandarin Objective Measurement Survey |
| » California Agricultural Statistics Report | » Navel Objective Measurement Surveys |
| » County Agricultural Commissioners' Report | » Citrus Acreage Survey |
| » Grape Acreage Report | » Almond Nursery Surveys |
| » Raisin Grape Mechanical Harvest Report | » Walnut Nursery Surveys |
| » Pierce's Disease Grower Survey | » Walnut Objective Measurement Surveys |
| » Almond Acreage Survey | » Processing Tomato Estimation Program Reports |
| » Almond Objective Measurement Surveys | » Table Olive Forecasts |
| | » Weekly Olive Receipts |

Reports and data can be found on the Ag Stats website: www.cdfa.ca.gov/Statistics/

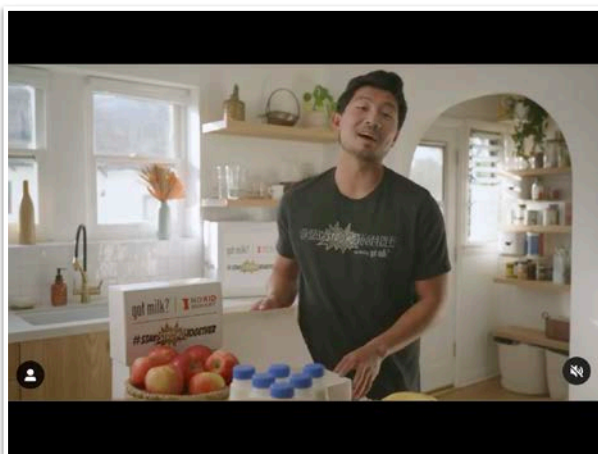
(Includes cash farm receipts, top-valued commodities, data on agricultural exports and organic product sales.)

CMPB: #StayStrongtogether



+
got milk?
=

#staystrongtogether



1B
EARNED MEDIA
IMPRESSIONS

1,466
EARNED MEDIA
PLACEMENTS

3M
TOTAL VIDEO
VIEWS

82%
POSITIVE
SENTIMENT

7M+
TOTAL
ENGAGEMENTS

PROVIDED 1 MILLION MEALS (WITH MILK!) FOR CA KIDS

CALIFORNIA MILK PROCESSOR BOARD CAMPAIGN AGAINST **CHILDHOOD HUNGER**

In 2021, the California Milk Processor Board created a movement to rally support to address childhood hunger, which rose to a record high during the COVID-19 pandemic. Partnering with Marvel's first Asian superhero, Simu Liu, the Board launched the #StayStrongTogether initiative, which successfully provided one million meals to children in California.

Market Enforcement Branch: Ensuring confidence in California's marketplace

CDFA's Market Enforcement Branch enforces laws to ensure confidence and stability in the agricultural marketplace and to protect against unfair business practices between producers, handlers, and processors of California farm products.

5,797 Licenses issued under
the Produce Dealers
Act and Processors Law

8,188 agents licensed

Lodi Winegrape Commission Sustainability Initiative

The Lodi Winegrape Commission's *LODI RULES for Sustainable Winegrowing* is California's first sustainable viticulture certification program.

LODI RULES is designed to communicate a commitment to sustainable agriculture to the public, trade and winery customers.

LODI RULES BY THE NUMBERS

Total Acres Certified

55,380

Lodi Acres Certified

28,776

16

California Crush Districts

Smallest Grower

9

Acres

Largest Grower

8,290

Acres

1,290 Vineyards Certified



Quota Administrative Program (QAP)

The QAP is an industry-funded, self-standing quota program administered by CDFA that allows participating milk producers to receive a premium for the milk they sell. In 2021, the QAP:

- » Redistributed \$12 million dollars per month
- » Collected assessments for two additional departmental dairy programs and three marketing order programs
- » Issued approximately 100 licenses



Grant Spotlight

Orange County Fair exhibit: redirected funding produces remarkable new displays

Under the general heading of “the pandemic changed our plans,” Cal Expo – the site in Sacramento that hosts the annual State Fair among many other events - had received a 2020 grant award from the Specialty Crop Block Grant Program, but they were unable to implement their project at the State Fair in 2021 because the event could not take place as planned.

Enter: the Orange County Fair, which was able to come back online for 2021. Creative thinking led to Cal Expo granting a “subaward” to their Orange County counterpart so the project and exhibits planned for the State Fair could instead be adapted and displayed slightly more to the south, so to speak. A tip of the hat to all involved, with CDFA’s thanks for making sure this project ended up where the public could enjoy it, even with all the hurdles the past few years have thrown in everyone’s way.



A satellite map of California serves as the background for the entire page. The map shows the state's coastline, major cities, and diverse terrain from coastal plains to inland mountains and agricultural valleys.

CALIFORNIA STATE BOARD OF FOOD AND AGRICULTURE

The California State Board of Food and Agriculture is an advisory body to the California governor and the CDFA secretary on issues of importance to farmers and ranchers. Appointed by Governor Gavin Newsom, the board's 15 members include 9 individuals representing the agricultural sector, 2 individuals representing consumer interests, 2 individuals representing the environment, and 2 individuals representing academia (CSU and UC).

In addition to tracking current trends in agriculture and advising the secretary and the department, the board also created and periodically updates an industry-wide planning document known as Ag Vision. In Summer of 2021, the board began a process of stakeholder engagement to deliver an updated Ag Vision report in 2022.

State Board by the Numbers

- » 11 Meetings
- » 80+ Speakers
- » 3 Board Actions

2021 Meeting Topics:

- » Water/Drought
- » Climate Smart Agriculture
- » Food Assistance/Nutrition
- » Ports/Freight Congestion
- » Organic Agriculture
- » Farmers and Farmworkers

Don Cameron,
Board President

Rachelle Arizmendi

Ashley Boren

Donald Bransford

Nancy Casady

Helene Dillard

Mike Gallo

Eric Holst

Jeff Huckaby

Bryce Lundberg

Martha Montoya

Joy Sterling

Andrew J. Thulin

Christopher Valadez

While COVID-19 still impacts international trade and travel, California's agricultural exporters continue to market the best of California. In 2021, in collaboration with the Western United States Agricultural Trade Association (WUSATA), California has made available:

more than 40 global trade activities

56 California businesses
have accessed more than

\$2.6 million
in grant funding to support
individual trade activities in

57 markets

International Climate Smart Agriculture Webinars

Furthering Climate Smart Agriculture collaboration on the global stage, CDFA's Office and Environmental Farming and Innovation (OEFI) hosted a series of webinars to connect farmers, academia and governments.

- » 4 webinars
- » 464 registered participants
- » Collaboration with 1 national and 2 subnational governments

California STEP

The Governor's Office of Business and Economic Development and CDFA coordinated on the implementation of the U.S. Small Business Administration's State Trade Expansion Program (STEP). The 2020/21 program provided \$900,000 in funding to assist California businesses in all sectors to expand exports and foreign market development.

Taste of California Virtual Showcase

Pivoting to virtual activities while international travel has been limited, CDFA partnered with the Governor's Office of Business and Economic Development and the Fresno Center for International Trade Development to host the virtual "Taste of California – California Specialty Crop Showcase" as a digital platform for trade engagement.

- » 40 exhibitors
- » 4 matchmaking events: UK, Hong Kong, India and Australia
- » 220 virtual attendees

**HELPING
PRODUCERS
DEVELOP
INTERNATIONAL
MARKETS**

THE GLOBAL STAGE

2020

112 Companies
1,519 Buyer Introductions
\$65M in Projected Sales

2021

119 Companies
214 Buyer Introductions
\$23.4M in Projected Sales

