

OFFICE OF ENVIRONMENTAL FARMING & INNOVATION

The mission of the Office of Environmental Farming & Innovation is to serve California by supporting agricultural production and incentivizing practices resulting in a net benefit for the environment through innovation, efficient management and science.



Dairy Digester
Research &
Development Program



The Healthy Soils
Program



State Water Efficiency
Enhancement Program



Office of Pesticide
Consultation and
Analysis



Alternative Manure
Management Program



Research



CDFA OFFICE OF PESTICIDE CONSULTATION AND ANALYSIS

WHAT IS OPCA?

OPCA works closely with the Department of Pesticide Regulation (DPR) and academic institutions to analyze the impact of proposed pesticide regulations on production agriculture.

HOW IS OPCA FUNDED?

OPCA is funded by a small assessment of 0.075 cents per dollar of agricultural pesticide sales.

WHAT TYPES OF RESEARCH IS OPCA CURRENTLY CONDUCTING?

OPCA is currently working with partners on the next phase of research to reduce pesticide spray drift in orchards. They are testing the effectiveness of the new "interference perimeter spraying" technique.

WHERE CAN I FIND OPCA PUBLICATIONS?

OPCA publications can be found
at: cdfa.ca.gov/oefi/opca/publications.html

OPCA Highlights



Finished two major reports to DPR on proposed regulations (schools regulation and fumigant notification)

Published one book chapter on economic and pest management analysis of the pesticide use report database

Our UC and NGO partners have published three scientific journal articles on our research

Participated in five grant review committees for DPR's Pest Management and Alliance grants

Working on multi-year field project with our partner CURES to develop methods to mitigate pesticide drift in orchard crops



Biologically Integrated Farming Systems (BIFS) grant program



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California Department of Food & Agriculture

BIFS history

- BIFS originally ran from 1995 to 2010
- Originally administered by Community Alliance with Family Farmers (CAFF) and later UC Sustainable Agricultural Research and Education Program (UC SAREP)
- Goals:
 - Foster farmer-to-farmer information exchange and on-farm demonstration of biologically integrated practices
 - Develop and outreach BMPs while allowing growers to maintain profitable businesses
- Previous projects reduced pesticide use, improved soil fertility, decreased erosion and nitrogen leaching & increased beneficials





OPCA BIFS program

- In 2019, OPCA received \$2 million from GF to revitalize BIFS
 - Awarded through two funding cycles
- Help growers transition away from chlorpyrifos & other biologically disruptive insecticides
- Previous BIFS iterations focused on broader range of ag practices
- Maintains goal of refining and outreaching innovative, effective and practical practices

Photo from CA Grown

BIFS projects typically include three elements

1. On-farm demonstration of an innovative, biologically based farming system that employs IPM strategies
2. A collaborative outreach effort for sharing technical information about farming system
3. Organized program for collecting biological and economic data to inform on-farm decision making and evaluate project success
 - Pest damage, yield, insecticide inputs, costs



BIFS project team and outreach

- Utilize existing partnerships/ build new
- Bring together scientists, extension specialists, growers, PCAs, commodity boards into collaborative “co-learning” environment
- Enable growers to adapt integrated practices to local conditions
- Industry partners can provide matching funds and/or cost-sharing rebates for materials and services
- Role of project team is to implement outreach program and serve as resource for participating farmers





Funded examples

1. Refinement and implementation of an areawide program for vineyard pathogens and their insect vectors

Project leader: Kent Daane, UC Berkeley

Cooperators: Central Coast Vineyard Team, Lodi Winegrape Commission

Amount: \$1 million

2. Promoting biologically integrated orchard systems in walnuts in Sacramento and San Joaquin Valleys

Project leader: Sara Tiffany, Community Alliance with Family Farmers

Cooperators: California Walnut Board

Amount: \$1 million



Upcoming opportunities



Questions?



IR-4 Project

- National Inter-regional Research Project No. 4 (IR-4) started in 1963
- IR-4 works with growers, extension specialists, registrants, state agencies, EPA to identify pest management needs for specialty crops
 - Registrants tend to focus product registrations on high-acreage crops that can generate more sales, and leave specialty crops off the label
 - Why: limited sales, potential liability concerns from crop damage, significant expense to generate data
- Funding comes through the USDA for research to support registration of specialty crop pesticides (synthetic and organic)



California IR-4 Project3

Started in 2018: Annual funding provided by CDFA to the Western Region IR-4 program (at UC Davis) to focus on California crops

- Western Region is responsible for 13 states west of the Rocky Mountains

3-yr projects that collect data on efficacy and residue data that are part of the registration process

- Focus on products that are reduced risk the public health and work well in integrated pest management systems

Projects

- 2018: Olive - olive fruit fly; Kiwifruit - diseases
- 2019: Safflower - aphid, whitefly; Rice - armyworm; Onion - maggot; Blueberry - citrus thrips
- 2020: Fig - navel orange worm; Cherry-diseases; Kiwifruit-weeds

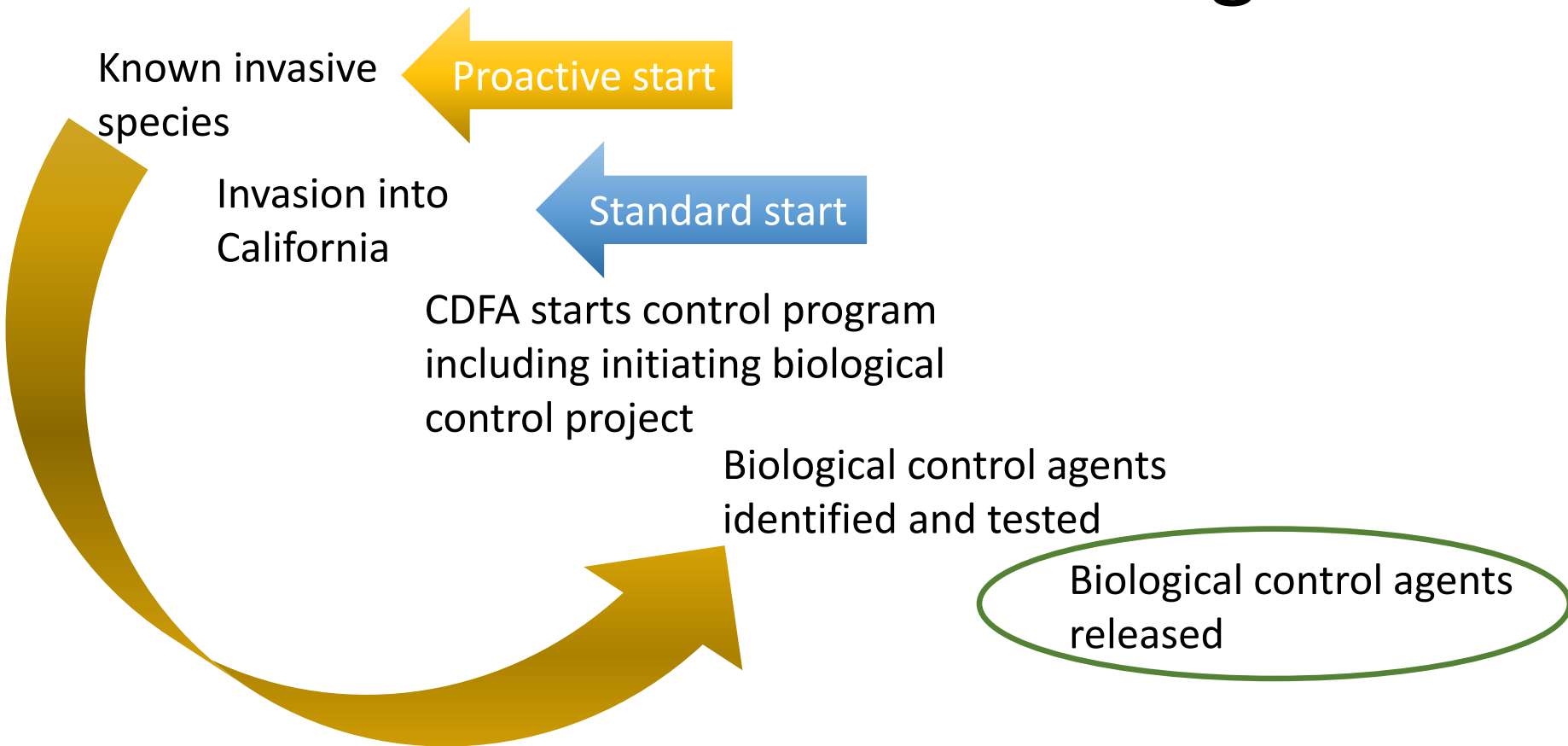
More info at <https://ir4california.org/>

Proactive biological control

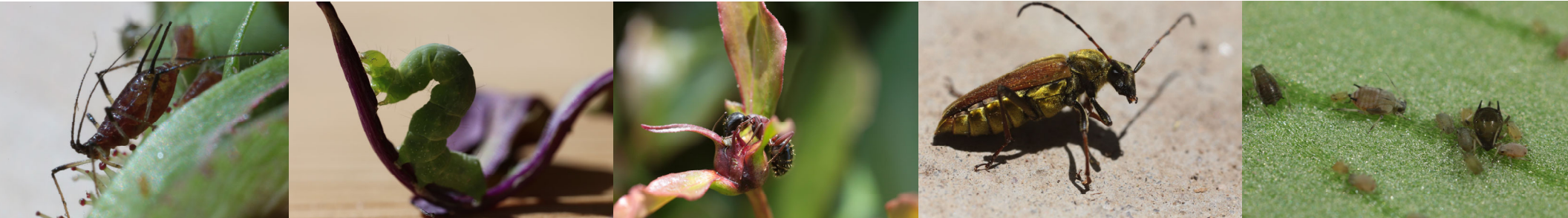


Proactive biocontrol could accelerate responses to invasive pests in urban areas — where pesticide use may be unpopular — before they spread to agricultural areas.

Speeds up the use of biological control in invasion management



Funding proactive projects



- Projects to support proactive identification and screening of new biological control for high priority, potentially invasive pests
- Budget is ~200K a year → hopefully increase to ~400K a year
- RFP every 1-3 years
- Each project will result in the selection of at least one effective natural enemy of the target pest and data necessary to obtain approval for natural enemy release

