

Comprehensive Pest Prevention Program Analysis



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Overview

C3PA Study

Pest Prevention
System
Framework

CDFA's Plant
Health and Pest
Prevention
Services Division

**New Study
at CDFA**

**Comprehensive Pest
Prevention Program
Analysis (C3PA)**

C3PA Background and Goals



New study to address issues not present or unforeseen in Rogers Study from 1997



Evaluate the effectiveness of pest risk abatement from new pathways and evaluate current pest exclusion strategies



Identify what strategies and tools are needed to support a modern pest prevention system



Quantify necessary funding needed to support all aspects of an effective and dynamic program

Research Collaboration

University of California, Davis

UC Agriculture and Natural Resources

University of Florida

Cal Poly San Luis Obispo

Cal Poly Pomona

Cal Poly Humboldt

CSU Sacramento State

CDFA Office of Pesticide Consultation & Analysis

Research Focus

1. Impacts of invasive plant pest species introductions and required prevention strategies.

2. New business practices which pose a risk as invasive pest pathways.

3. New crops and management practices which pose a risk as invasive pest pathways.

4. Early detection strategies with emphasis on how and where these strategies can be used in pest detection activities.

Pest Prevention System Framework

EXCLUSION: external and internal exclusion activities designed to prevent pest introduction and respond in a timely manner to contain the spread of newly detected pests

DETECTION: early detection of plant pests before they become well established

ERADICATION: timely and effective eradication actions to eliminate new pest infestations

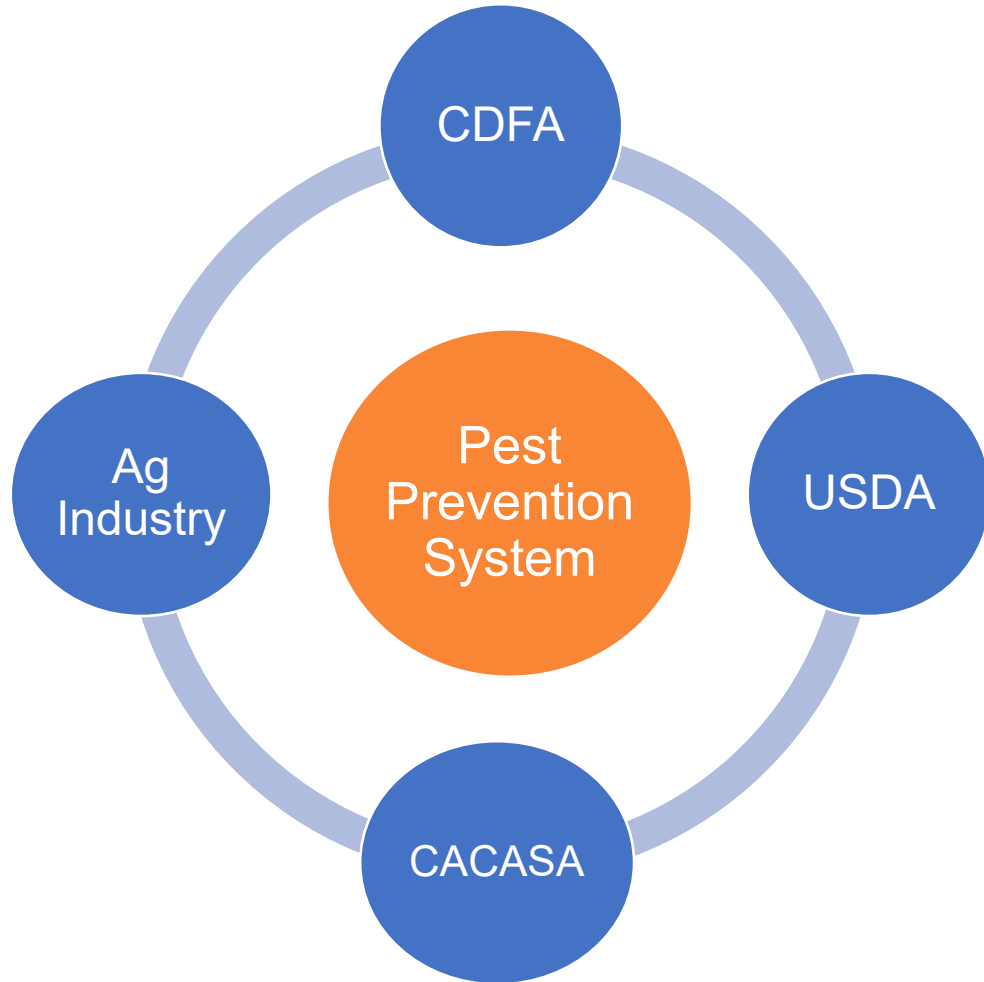
CONTROL: control and containment systems for plant pests that have become established

IDENTIFICATION: accurate and timely pest identification

PUBLIC OUTREACH: enlist public support of pest prevention activities through enhanced public awareness and education

SCIENTIFIC SUPPORT: research, information technology, and pest risk analysis systems to ensure that the pest prevention program is relevant, scientifically based, and continuously improved

Advantages of California's Pest Prevention System



Increases reaction time to invasive pest introduction, facilitating 'early detection – rapid response'

Fosters interagency communication about pest species and proactive management approaches

Enhances knowledge of pest biology for more focused and refined control efforts

Provides a robust regulatory framework to address concerns for potential environmental and human health impacts

Establishes a modern, data-based and science driven system to keep pace with increasing pest-pressures

Plant Health and Pest Prevention Services Division Branches

Pest Exclusion

Pest Detection/Emergency
Projects

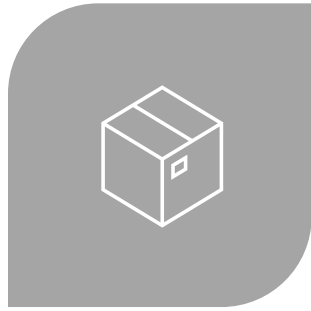
Integrated Pest Control

Plant Pest Diagnostics
Center

Pest Exclusion Branch



EXTERIOR PROGRAM



INTERIOR PROGRAM

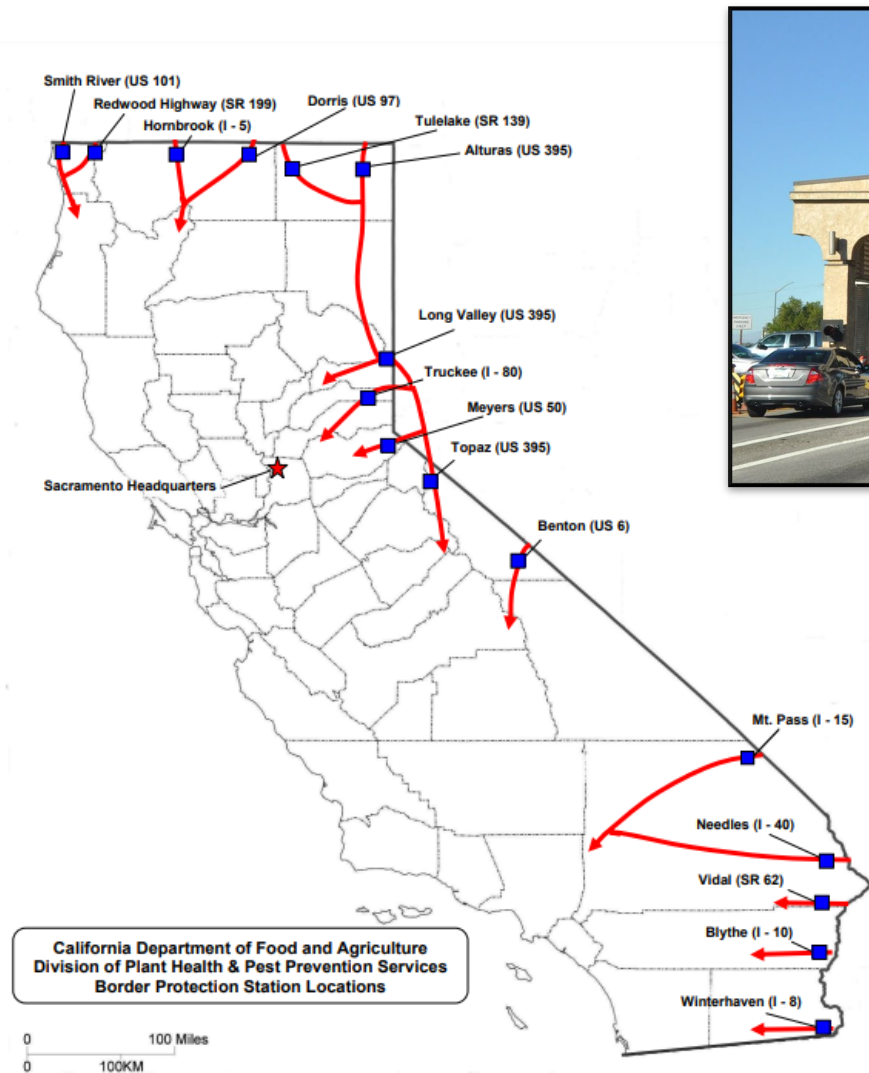


NURSERY, SEED,
COTTON, INDUSTRIAL
HEMP PROGRAM



EMERGENCY
QUARANTINE
RESPONSE PROGRAM

Exterior Program – Border Protection Stations





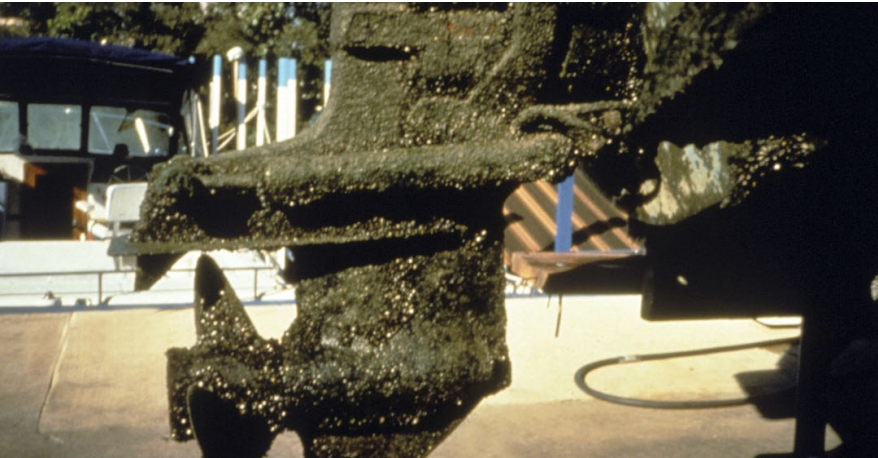
Vehicle Inspections

- Passenger Vehicles
 - Consists of physically inspecting vehicle compartments and/or ice chests for quarantined commodities
- Self-Moving Vehicles (U-haul, Ryder, etc.)
 - Consists of a physically inspecting contents of vehicle for quarantined commodities and hitchhiking pests
- Recreational Vehicles, Campers, and Trailers
 - Consists of physically inspecting interior and exterior of vehicle for quarantined commodities and hitchhiking pests
- Watercrafts
 - Inspected for aquatic invasive species





Fish and Wildlife Watercraft Inspections



- Inspect watercrafts for aquatic invasive species
- Ensure watercrafts are free of standing water
- Decontaminate infested watercraft
- Report finds to the California Department of Fish and Wildlife



Interior Program

County High Risk Pest Exclusion Program

Detector Dog Teams

Export Facilitation

Sudden Oak Death

Quarantine Consultations

County High Risk Pest Exclusion (HRPE) Program

- The HRPE program is a vital component in the State's overall pest prevention efforts and is a crucial part of CDFA's mission to protect agriculture and the environment from the threat of newly introduced exotic pests
- Cooperative program with the County Agricultural Commissioner's offices





Detector Dog Teams

- 14 dog teams in 11 counties
- Parcel interceptions of contraband materials at FedEx, UPS, DHL, USPS and others
- Cooperative program with the County Agricultural Commissioner's offices



Nursery, Seed, Cotton and Industrial Hemp Programs

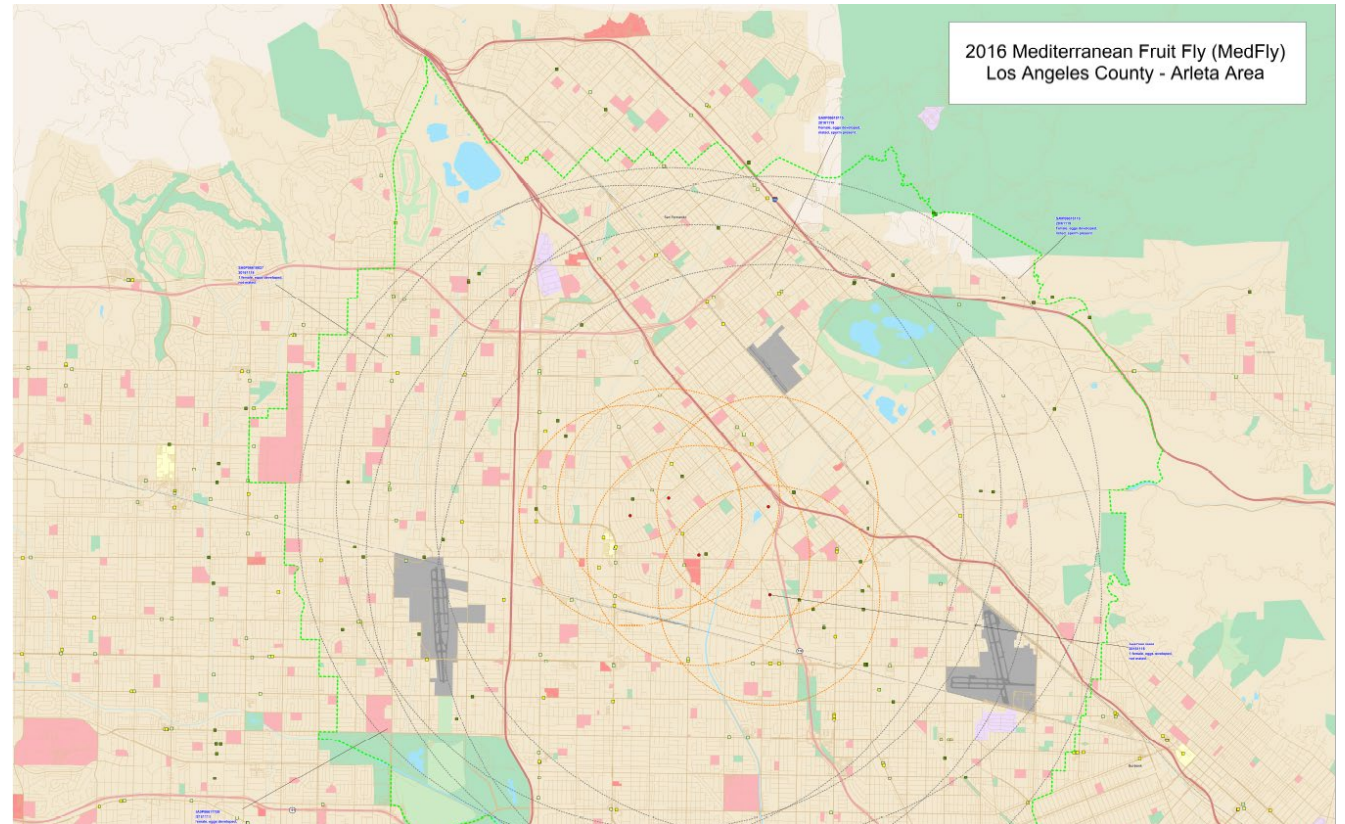


Programs supporting and funded by industry:

- Nursery Services
- Nursery Stock Registration and Certification Programs
- Seed Services
- Quality Cotton
- Industrial Hemp

Emergency Quarantine Enforcement

- Quarantine enforcement activities for new pest introductions subject to statewide enforcement action (i.e. invasive fruit flies)



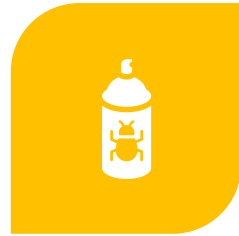
Pest Detection/ Emergency Projects Branch



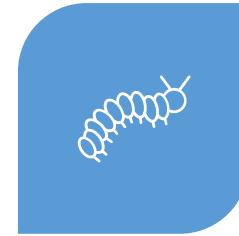
DETECTION SURVEYS



EMERGENCY PROJECTS



ENVIRONMENTAL
MONITORING



MEDFLY PREVENTATIVE
RELEASE PROGRAM

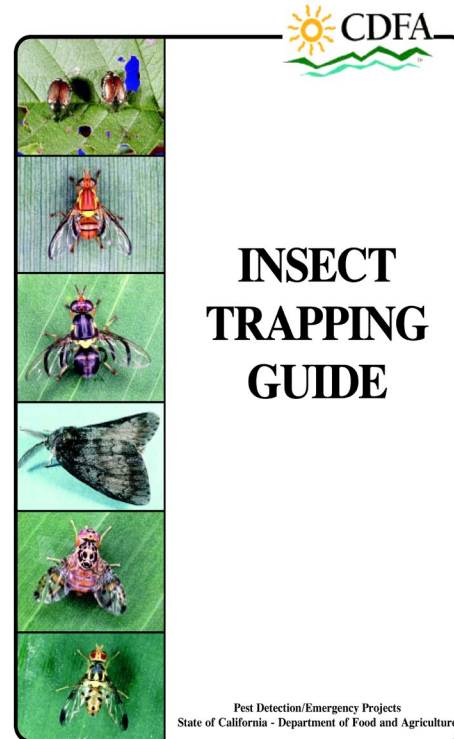


METHODS
DEVELOPMENT

Detection Trapping



McPhail Trap (CDFA)



Spongy Moths on Trap (CDFA)

CDFA Detection/Eradication Goals:

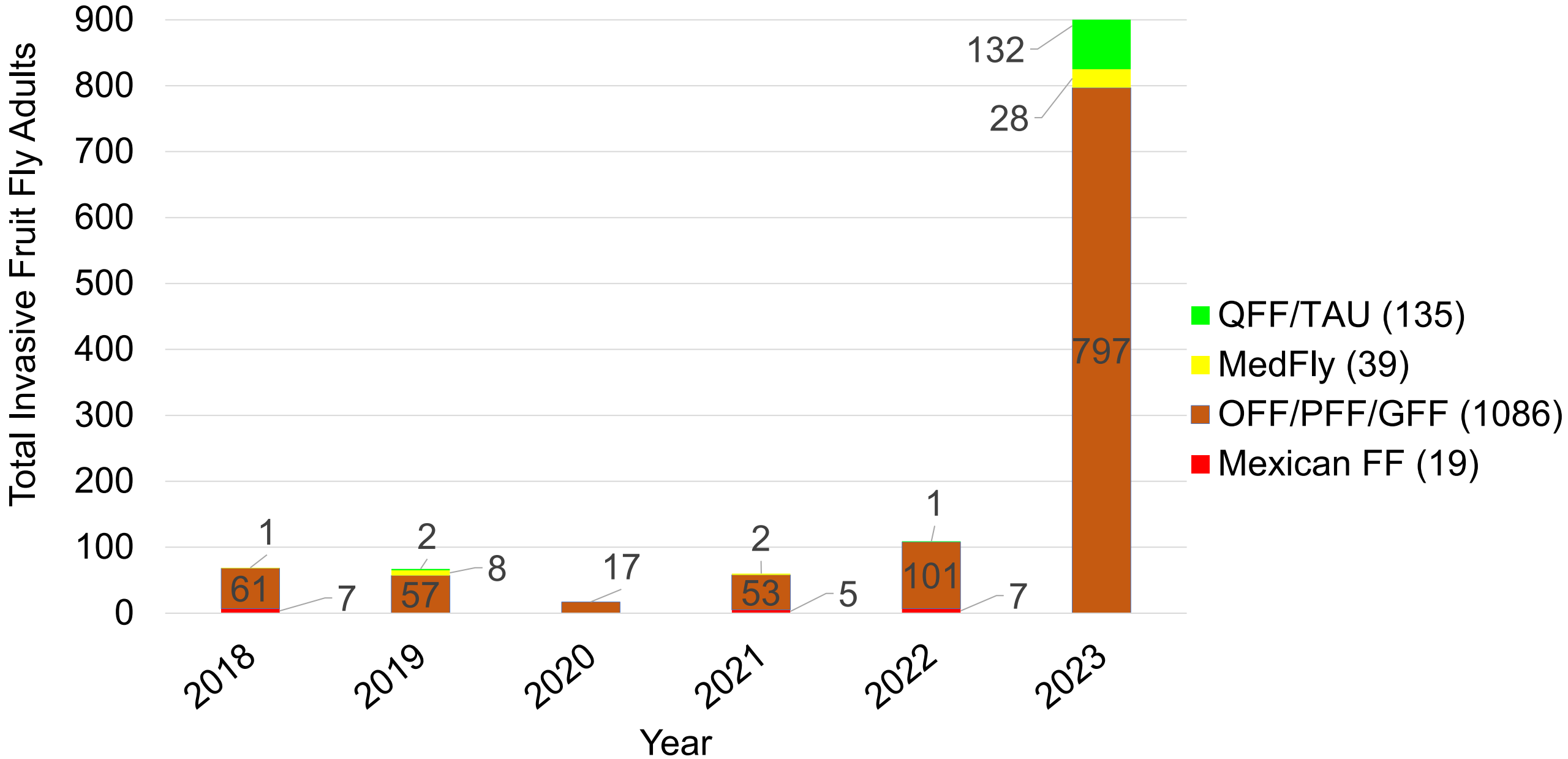
- Find insect pests before they infest one square mile and plant diseases before they exceed one-half of a square mile.
- Eradicate infestations of serious pests, preventing spread, and permanent establishment.

California's Detection Network



Trap Type	2018	2019	2020	2021	2022
Mediterranean fruit fly Jackson	23,730	23,535	22,968	24,511	25,289
Oriental fruit fly Jackson	21,510	23,259	23,769	23,293	23,721
Melon fly Jackson	19,151	19,484	19,013	18,839	20,353
Invasive fruit flies McPhail	19,113	20,662	19,149	24,355	22,522
Invasive fruit flies ChamP	2,762	2,024	2,069	2,902	3,211
Total	86,266	88,964	86,968	93,900	95,096

Invasive Fruit Fly Adults Per Year



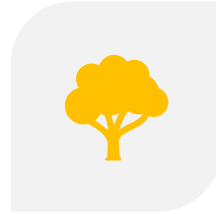
Integrated Pest Control Branch



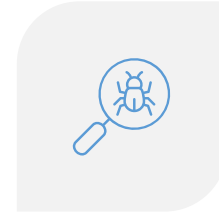
BEET CURLY TOP
VIRUS PROGRAM



COTTON PEST
CONTROL PROGRAM



NAVEL
ORANGEWORM
PROGRAM



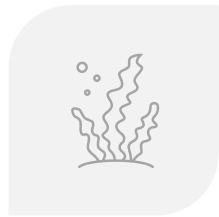
BIOLOGICAL
CONTROL PROGRAM



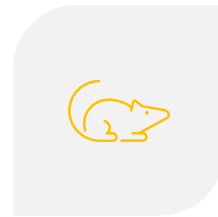
PINK HIBISCUS
MEALYBUG
PROGRAM



NOXIOUS WEED
PROGRAM



HYDRILLA
ERADICATION
PROGRAM



VERTEBRATE PEST
CONTROL PROGRAM



APIARY PROTECTION
PROGRAM

Noxious Weed Program

- The CDFA administers Unclaimed Gas Tax (UGT) funds through contracts with 55 County Agricultural Commissioner offices to limit weed introductions.
- Partners with California Invasive Plant Council for stakeholder engagement to develop weed prioritization plans for 19 regions.
- Funding from US Forest Service supports work for biological control agent rearing and dissemination for weed control.



Hydrilla Eradication Program

- Hydrilla is an aquatic plant which infests natural and man-made aquatic ecosystems.
- CDFA conducts eradication efforts in three counties throughout California integrating various methods of control.



Plant Pest Diagnostics Center



BOTANY



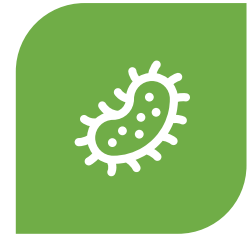
ENTOMOLOGY



NEMATOTOLOGY



SEED

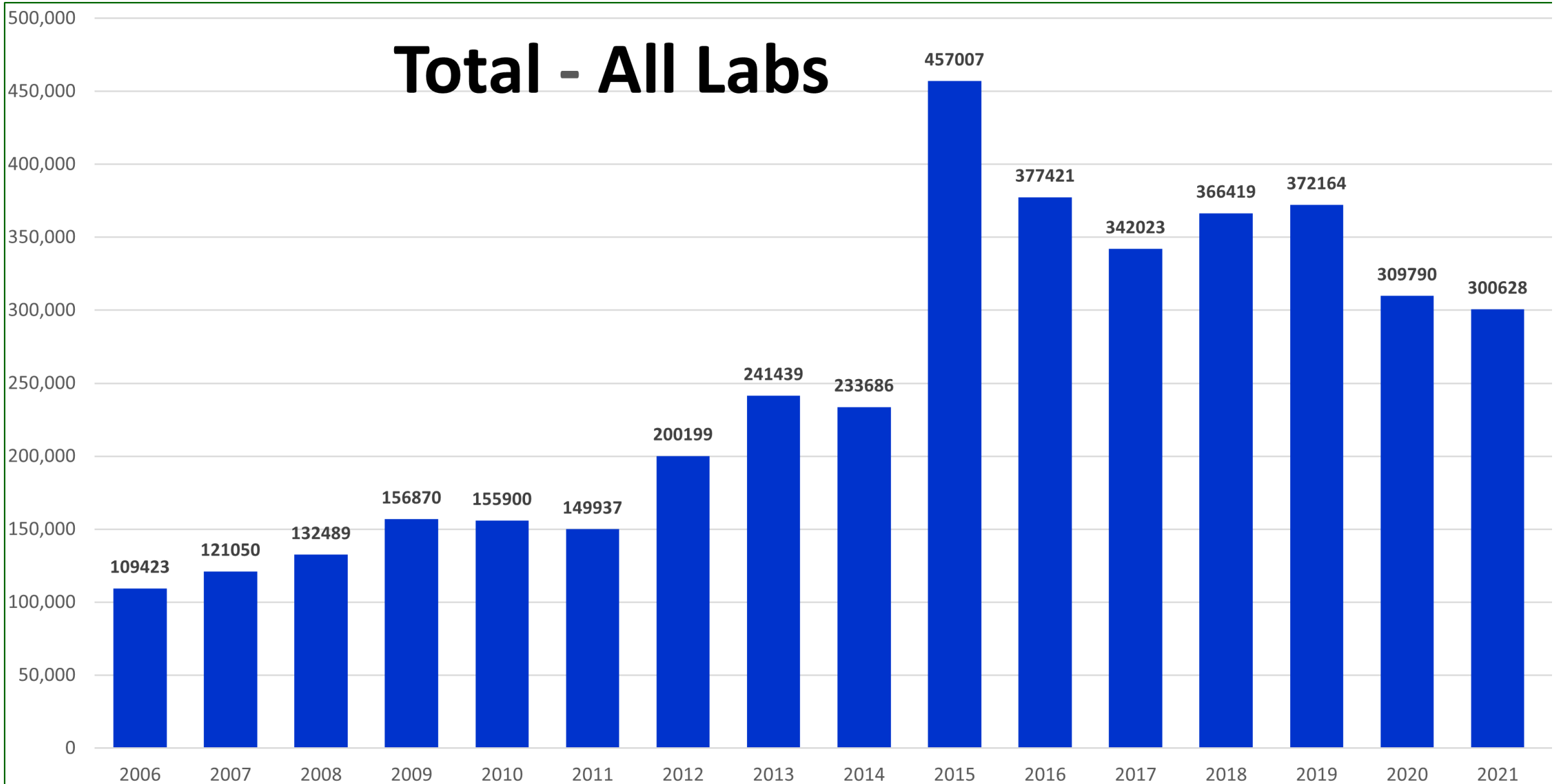


PLANT
PATHOLOGY

Plant Pest Diagnostics Center

Total Diagnostic Determinations

Total - All Labs



Public Outreach



OUTREACH



EDUCATION

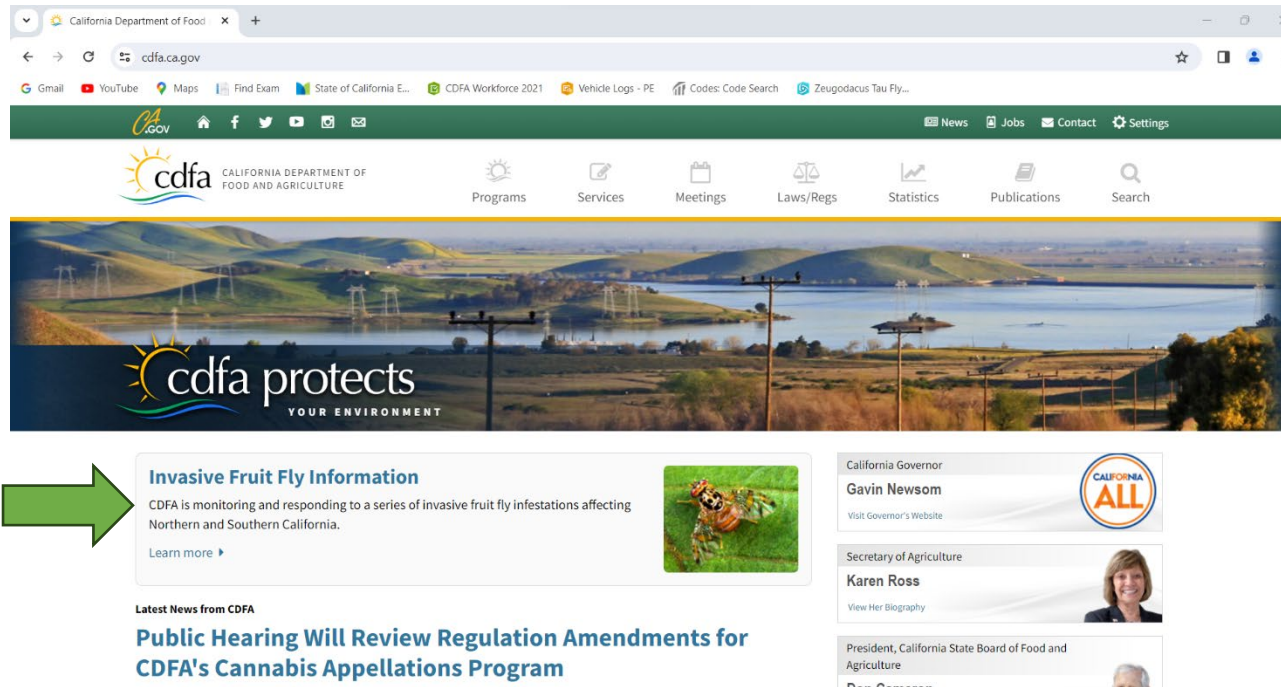


MEDIA



PUBLIC
MEETINGS

Outreach Efforts



- Public and grower meetings
- Paper and digital materials
- Traditional and social media

- New fruit fly landing page: CAfruitfly.com
- Signage – trucks, residential yards, billboards



Scientific Support



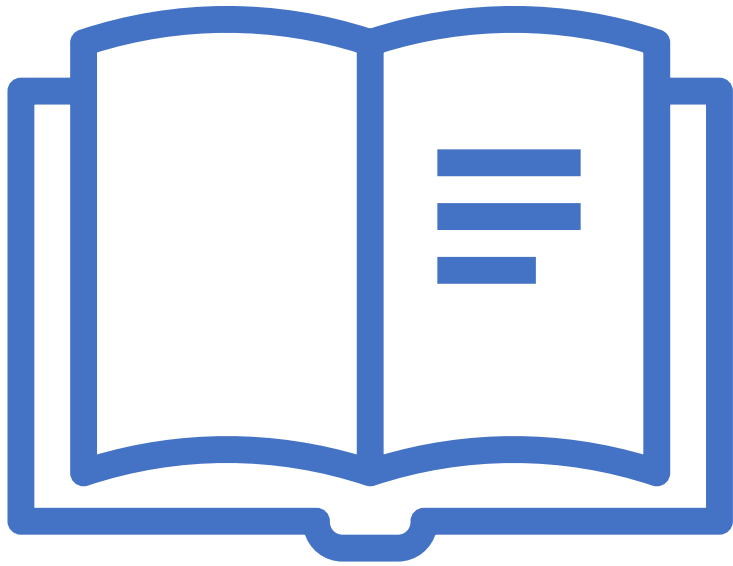
RESEARCH



INFORMATION
TECHNOLOGY



PEST RISK
ANALYSIS



**C3PA Study
Coming in 2025**

Thank You!

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