



California Strawberry Commission Update  
UCCE Santa Cruz  
2026 Annual Strawberry Production Research Meeting  
February 10, 2026

Bill Turechek - *VP Research*

# Agenda

## 1. Introduction to CSC

- a. Brief history & departmental structure
- b. Acreage, volume, and pricing data

## 2. Pesticide Label Update

## 3. Lawsuits & Audits

- a. Monterey County
- b. Judicial Legislative Action Committee Audit of DPR
- c. Department of Pesticide Regulation

## 4. Packaging Plastic Regulation

## 5. Minimum Wage Increase

## 6. Monarch Butterfly Update

## 7. CSC Research



# Who is the California Strawberry Commission?

In 1956, the California Strawberry Advisory Board (CSAB) was formed under California law as a pseudo state government agency to represent California strawberry growers

In 1995, the CSAB became the California Strawberry Commission – allowing CSC to engage in “political issues”



The CSC represents the 300+ growers, shippers, and processors in California.

Research

Grower Education

Public Policy

Market Insights

Communications



# California Strawberries: 2025 Statistics

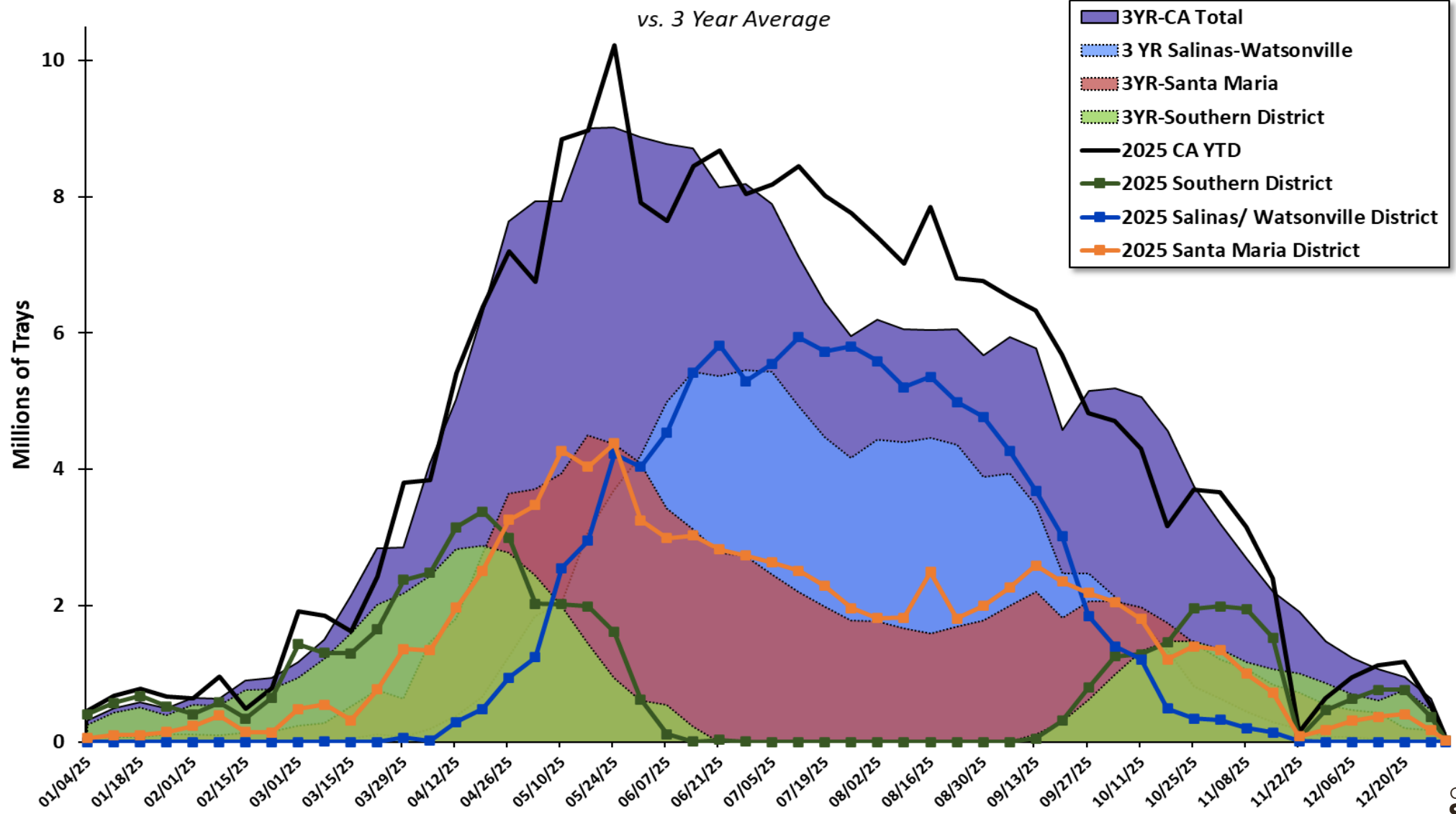
- CA produces 90% of U.S. strawberry
- 4<sup>th</sup> most valuable produce crop in CA
  - 2023 (CDFA, 2024)
- Grown on 43,726 acres
  - ~0.5% of California cropland (8.5M acres)
  - 13.1% (5,713 acres) is organic production
- 236,742,386 trays harvested in 2025
  - ~10M less than 2024
  - \$12.78 /tray conventional in 2025 vs \$11.02 in 2024
  - \$17.65/tray organic in 2025 vs \$20.20 in 2024



# 2025 Volume Report

## Fresh Weekly Volume by District

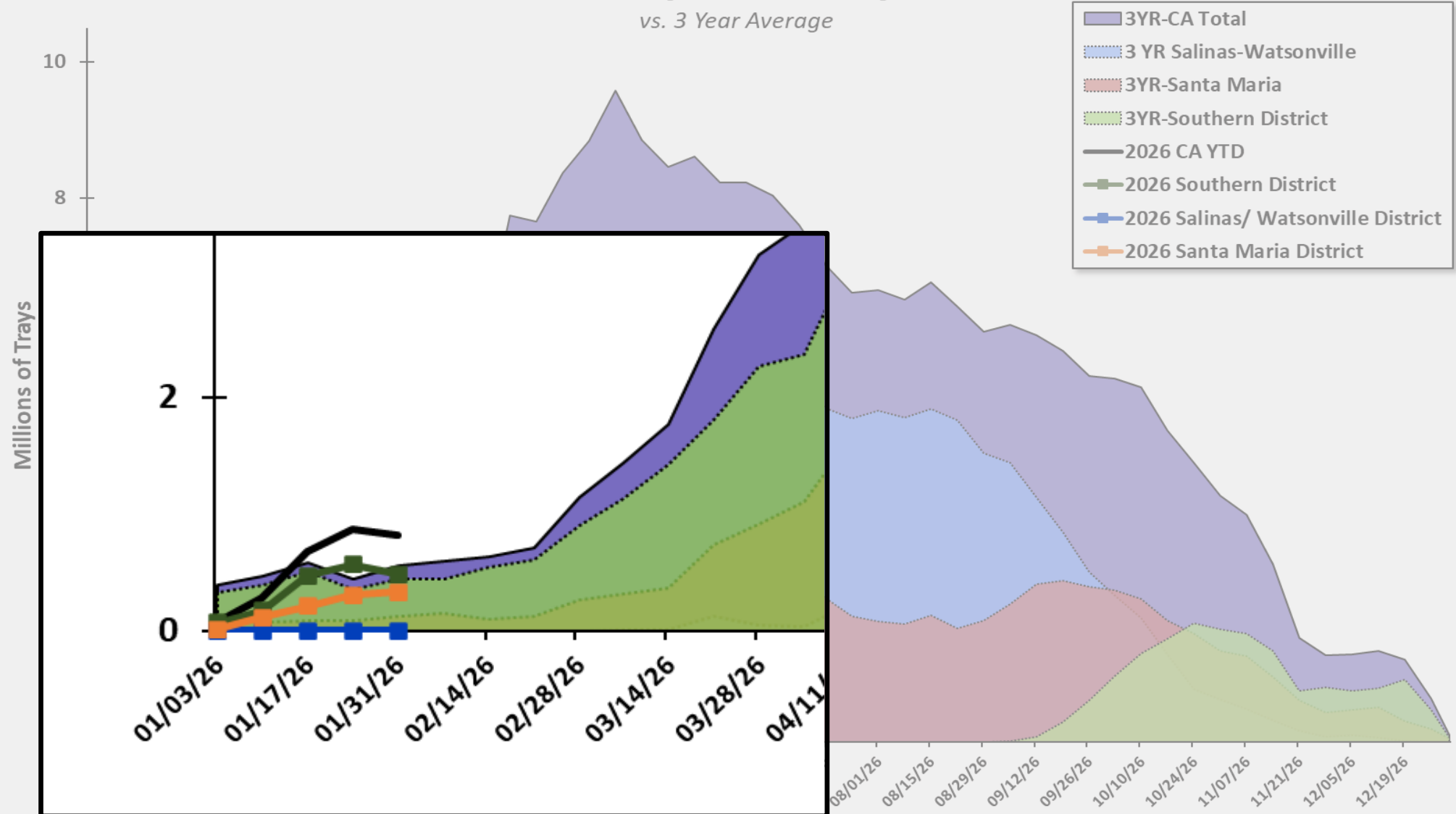
vs. 3 Year Average



# 2026 Volume Report (*projected*)

## Fresh Weekly Volume by District

vs. 3 Year Average



# Acreage Trends

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Year	Acreage	Volume (Trays)	FOB Per Tray	Crop Value	Trays Per Acre
2026 YTD	43,726	3,704,019	\$15.97	\$59,153,183	85
2025	42,885	236,742,386	\$13.31	\$3,151,041,158	5,520
2024	42,320	246,815,631	\$11.80	\$2,912,424,446	5,832
2023	40,285	219,820,445	\$12.13	\$2,666,421,998	5,457
2022	40,714	217,250,683	\$12.41	\$2,696,080,976	5,336
2021	37,552	212,840,225	\$13.35	\$2,841,417,004	5,668
2020	35,423	210,238,508	\$12.03	\$2,529,169,251	5,935
2019	32,957	202,060,945	\$10.41	\$2,103,454,437	6,131
2018	33,838	224,491,465	\$9.10	\$2,042,872,332	6,634
2017	36,387	206,040,481	\$9.56	\$1,969,746,998	5,662
2016	36,039	196,828,485	\$10.23	\$2,013,555,402	5,462
2015	38,100	190,168,553	\$10.52	\$2,000,573,178	4,991
2014	38,937	192,374,920	\$10.78	\$2,073,801,638	4,941
2013	40,816	195,011,537	\$9.68	\$1,887,711,678	4,778
2012	37,732	190,538,794	\$9.59	\$1,827,267,034	5,050

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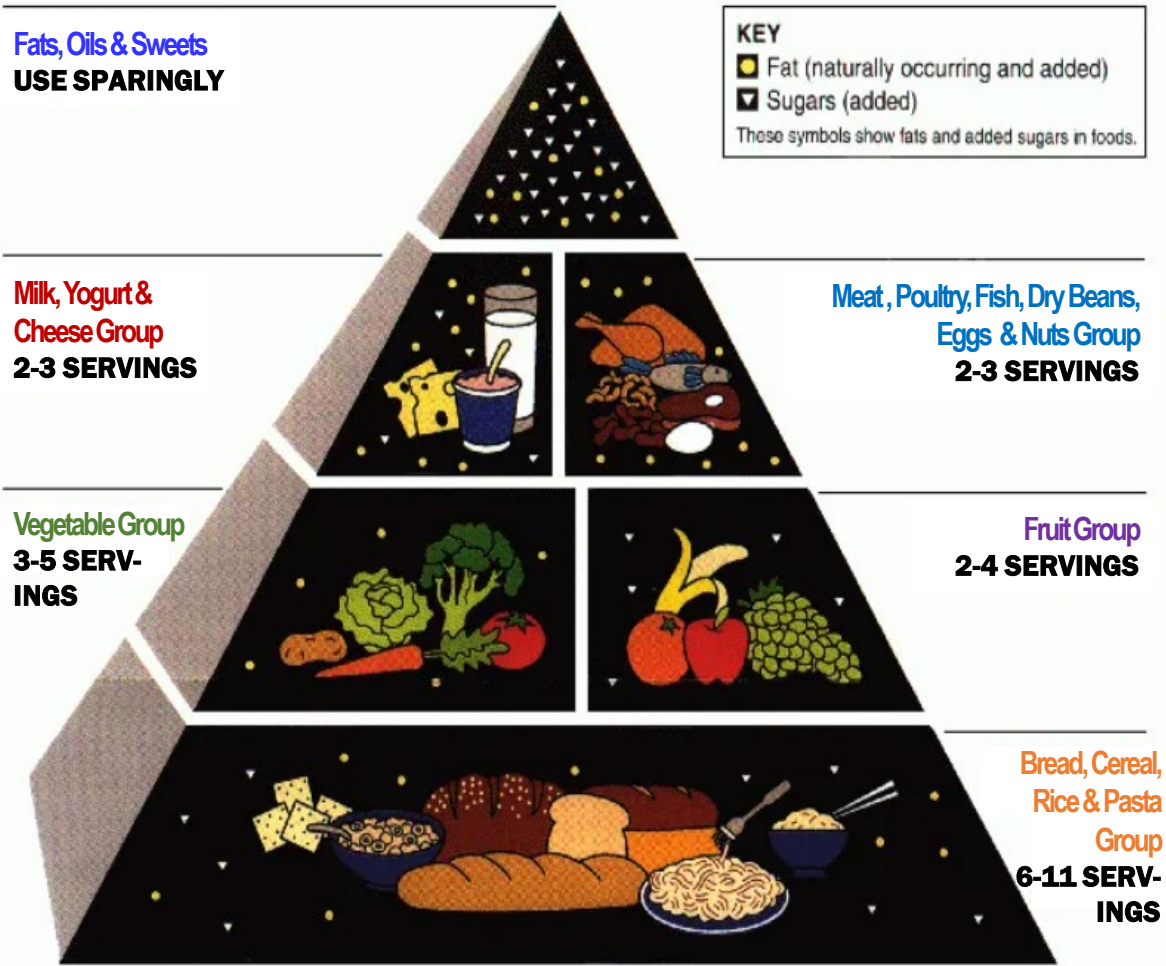
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# New Food Pyramid



Old

New



# Label Update



Grp 9D; Section 18

**Expected in  
early March**

The Syngenta logo, consisting of the word "syngenta" in white lowercase letters on an orange rectangular background.

PLINAZOLIN Technology

**Grp 30; Section 3 label for “tier 1 crops” approved Federally but not in CA. California label expected in 2026/7; Can submit for a Section 18 after it is labelled in CA**



# Monterey County Lawsuit

STATE CAPITOL  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0012  
(916) 319-2012  
FAX (916) 319-2112



COMMITTEES  
CHAIR, ENVIRONMENTAL SAFETY  
AND TOXIC MATERIALS  
AGRICULTURE  
BUDGET  
JUDICIARY  
NATURAL RESOURCES  
BUDGET SUBCOMMITTEE NO. 4 ON  
CLIMATE CRISIS, RESOURCES,  
ENERGY, AND TRANSPORTATION

April 22, 2025

Members  
Joint Legislative Audit Committee  
1020 N Street, Room 107  
Sacramento, CA 95814

REVISED 5/28/2025

Re: Evaluation of pesticide use laws

Dear Chair Harabedian, Vice Chair Laird, and Members of the Committee,

I respectfully request that the Joint Legislative Audit Committee approve an audit examining California's enforcement of specified agricultural pesticide use laws and regulations. Pesticides can serve as an important tool in a broader toolkit for managing agricultural pests and protecting high-value crops. However, they can also pose substantial health risks to farmworkers, bystanders, and nearby residents, as well as negatively impact the environment. With the recent passage of Assembly Bill (AB) 2113 (Garcia, Chapter 60, Statutes of 2024) and its associated increase in funding for the California Department of Pesticide Regulation (DPR), now is an ideal time for the Legislature to examine how these pesticide use laws and regulations are working.<sup>1</sup> The audit outlined below is consistent with the Legislature's aims of supporting good governance, efficient use of state funds, effective enforcement, and the protection of human health and the environment.

LAWSUIT TARGETS PESTICIDE USE NEAR SCHOOLS  
MONTEREY COUNTY



# New DPR Lawsuit

Farmworker Advocates Sue California Over Conflicting  
Regulations for Cancer-Causing Fumigant Pesticide 1,3-D

## Timeline: Legal Challenges to DPR's Regulation of 1,3-D

- **2017** – Farmworker and community members file *Vaquez et al. v DPR*, challenging DPR's failure to lawfully regulate the cancer-causing fumigant 1,3-D.
- **2018** – Trial court rules in favor of plaintiffs, finding DPR violated the law by adopting “underground regulation” with no public process.
- **2021** – Joined by the manufacturer Dow, DPR appeals and **loses**; the appellate court affirms that DPR's regulation of 1,3-D is unlawful.
- **2022** – OEHHA adopts a No Significant Risk Level (NSRL) for 1,3-D equivalent to **0.04ppb**.
- **2023** – DPR develops a regulation for **residential bystanders** using a target air level of **0.56ppb** – 14 times higher the OEHHA's NSRL. Plaintiffs return to court to challenge DPR's failure to comply with the court order.
- **2023** – The court orders DPR to develop a second regulation addressing exposure risks to **occupational bystanders**, and to work on it “jointly and mutually” with OEHHA.
- **2024** – The first regulation, for residential bystanders, takes effect, using DPR's 0.56ppb regulatory target threshold.
- **2026** – The second regulation, for occupational bystanders, takes effect, using a cancer regulatory target air level of **0.21ppb** during workhours, resulting in **two conflicting regulations** for 1,3-D that allow widely different levels of exposure to essentially the same populations. Community members and advocacy organizations file suit again, alleging violations of the Administrative Procedure Act and the California Food and Agriculture Code.

**Nine years after landmark court victory, California Department of  
Pesticide Regulation's 1,3-D regulations still fall far short, say advocates**





# Berry Packaging – SB54

January 2026

Amrith Gunasekara, PhD, Director of Regulatory Affairs  
Mark Martinez, Vice President, Public Policy  
Rick Tomlinson, President



# What is SB54?

## Plastic Pollution Prevention & Packaging Producer Responsibility Act

- Introduces the concept of Extended Producer Responsibility (EPR), shifting costs from cities/consumers to producers (brand owners/packers)

- Producers are required to join a Producer Responsibility Organization (PRO)
- Targets EPR, or Extended Producer Responsibility, is a policy
- PROs to PRO, or Producer Responsibility Organization, is a collective body that producers join to fund and

### Why it Matters

- Most states manage the EPR program, handling tasks like collection, sorting, processing, and paying for the associated costs.
- Labeling claims restricted under SB343 (“Truth in Recycling” labelling law)
- Design-for-recycling pressures (labels, inks, adhesives)



# STATUS OF PASSED U.S. PACKAGING EPR LAWS

DONATE

MYNAW LOGIN

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## NAW Takes Against C Recycling

### NAW's lawsuit alleges that with this law Oregon unconstitutionally:

- Delegates control over the EPR program to the Circular Action Alliance (PRO) without clear rules or oversight
- Unfairly targets out-of-state producers, disrupts national markets, and tries to control business outside of Oregon violating the U.S. Constitution's limits on state regulation of commerce

- Federal court hearing on lawsuit scheduled for February 6, 2026
- House Bill 6832 (Rep Randy Weber R-TX)
  - To amend the Federal Trade Commission Act to include requirements for recyclable, compostable, and reusable claims for packaging for a consumer product, and for other purposes

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 PASSED

 STUDY BILL PASSED

 INTRODUCED EPR

Producers pay fees starting  
January 1, 2026

# Status of SB54 Regulations

- *Formal draft regulations* submitted to Office of Administrative Law (OAL) at the end of 2025
  - CalRecycle withdrew regulations on Jan 9, 2026
- CalRecycle released *final permanent draft regulations* on Jan 29
  - 15-day public comment period ends Feb 13
- SB54 Statute and draft regulations exempt growers from paying fees if berries are packed in the field
- Regulations has language that an application can be submitted as an “entity” for a categorical exclusion for a covered material
  - Plastic PET berry clamshell





# MONARCH BUTTERFLY: PROPOSED LISTING

December 2024



# USFWS: Monarch Listing

- The monarch was petitioned to be listed as a *threatened species* in 2014
- In 2020, the petition was denied by the *Pr*
- On *Pr*, the monarch was listed as a *threatened species*
- A final listing is mandated in 12 months

December 2025



NO MILKWEED /  
SIN CRECIMIENTO  
DE ALGODONCILLO

NORTHERN LIMIT OF MILKWEED /  
LÍMITE NORTE DE ALGODONCILLO

# Monarch Migration





Spring & Fall

## La Migración de la Monarca

Primavera y Otoño

### LEGEND / LA LEYENDA

- Overwintering areas  Zona de invernada
- Spring breeding areas  Zona de reproducción de primavera
- Spring & summer breeding areas  Zona de reproducción de primavera y verano
- Summer breeding areas  Zona de reproducción de verano
- No breeding area  Sin zona de reproducción
- Resident population  Población residente
- Potential breeding habitat  Hábitat no confirmada de reproducción
- Fall migration  La migración de otoño
- Spring migration  La migración de primavera
- Unconfirmed migration  Ruta de migración no confirmada



WINTER /  
INVIERNO

SPRING & SUMMER /  
PRIMAVERA Y VERANO

SUMMER / VERANO

SPRING / PRIMAVERA

RESIDENT POPULATION /  
POBLACIÓN RESIDENTE

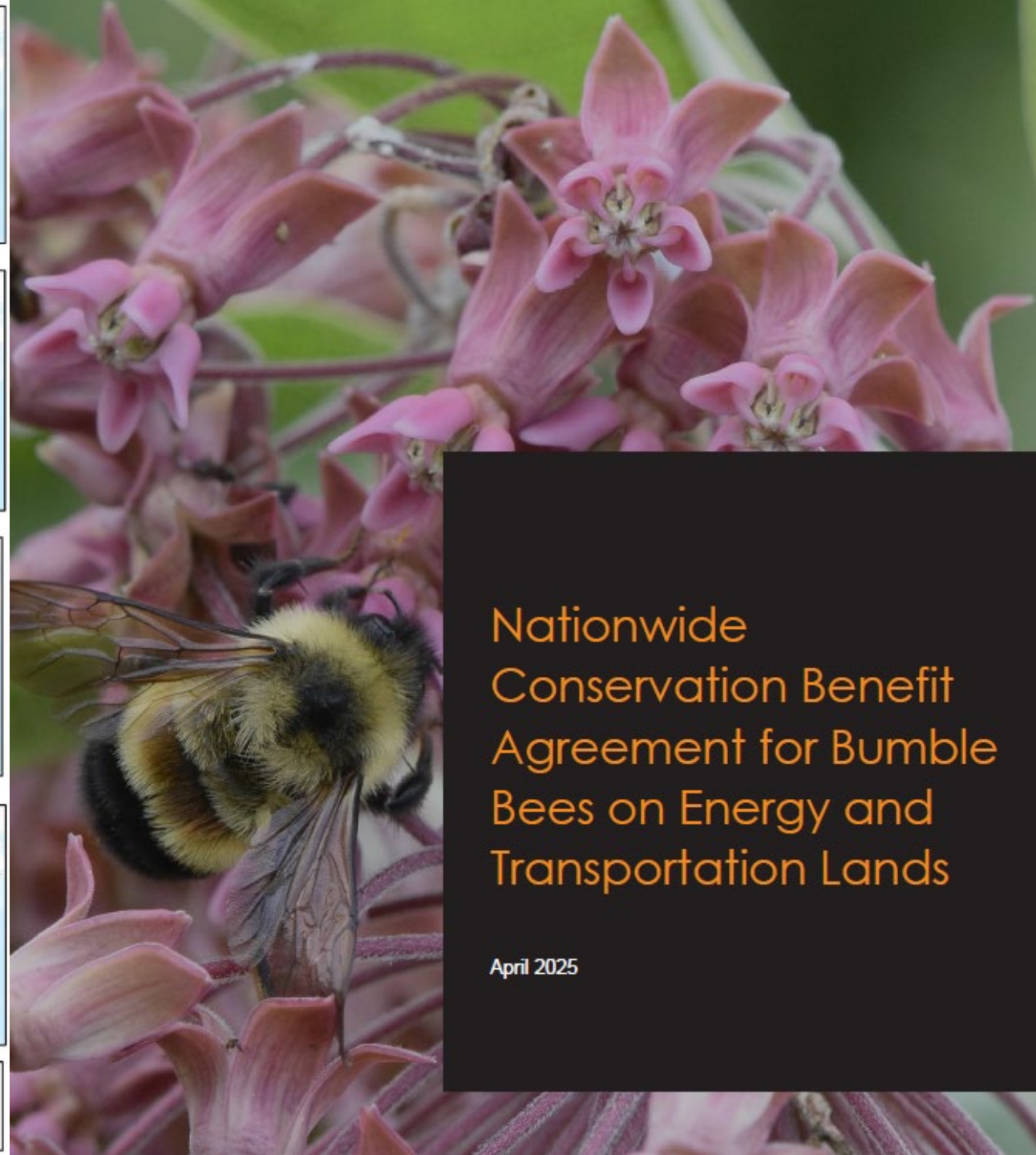
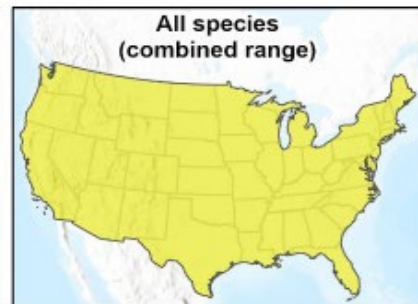
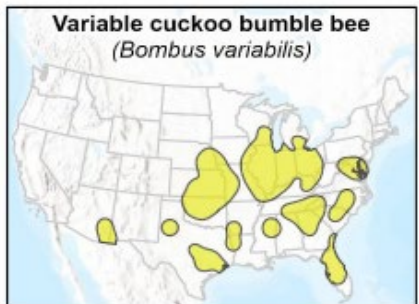
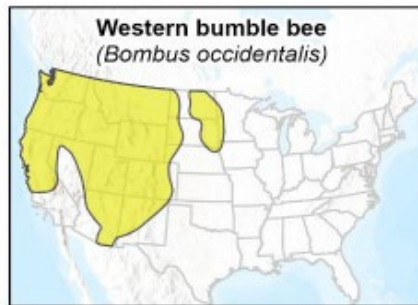
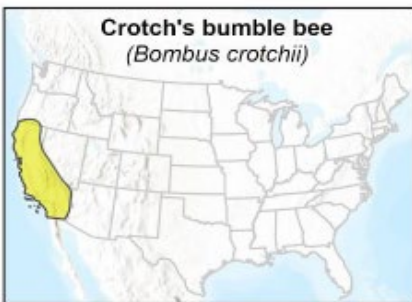
WINTER / INVIERNO

# Monarch Butterfly Migration

**A spike in alerts concerning the monarch butterflies, especially related to their migration to the West coast and fears of their dwindling numbers.**

1. The San Luis Obispo Tribune: [Pismo Beach monarch butterfly count is perilously low again. Here's how many](#)
2. KQED: [Western Monarch Butterfly 'Migration Is Collapsing,' Scientists Say. You Can Help](#)
3. The Good Men Project: [Everyone Says They Love Butterflies, So Why Aren't We Doing More to Save Them?](#)
4. Los Angeles Times: [Plunging monarch butterfly tallies may be 'new normal'](#)
5. The Cool Down: [Volunteers band together to save beloved 'Butterfly Town' from dire threat: 'Mass mortality event'](#)
6. CE Noticias Financieras English: [Monarch butterfly numbers remain at 'historic lows' in the US despite slight uptick](#)
7. KCBX: [Monarch butterfly count in Goleta 'devastatingly low'](#)





Nationwide  
Conservation Benefit  
Agreement for Bumble  
Bees on Energy and  
Transportation Lands

April 2025



# CSC Research

Kevin Gee, Chairman of the Research Committee

# CSC Research Department Projects



1. *What pollinator mixes work?*
  - i. Off-the-shelf vs. custom blends
  - ii. Native vs. non-native
  - iii. Annual vs. perennial

Coastal Native



Xerces Mix



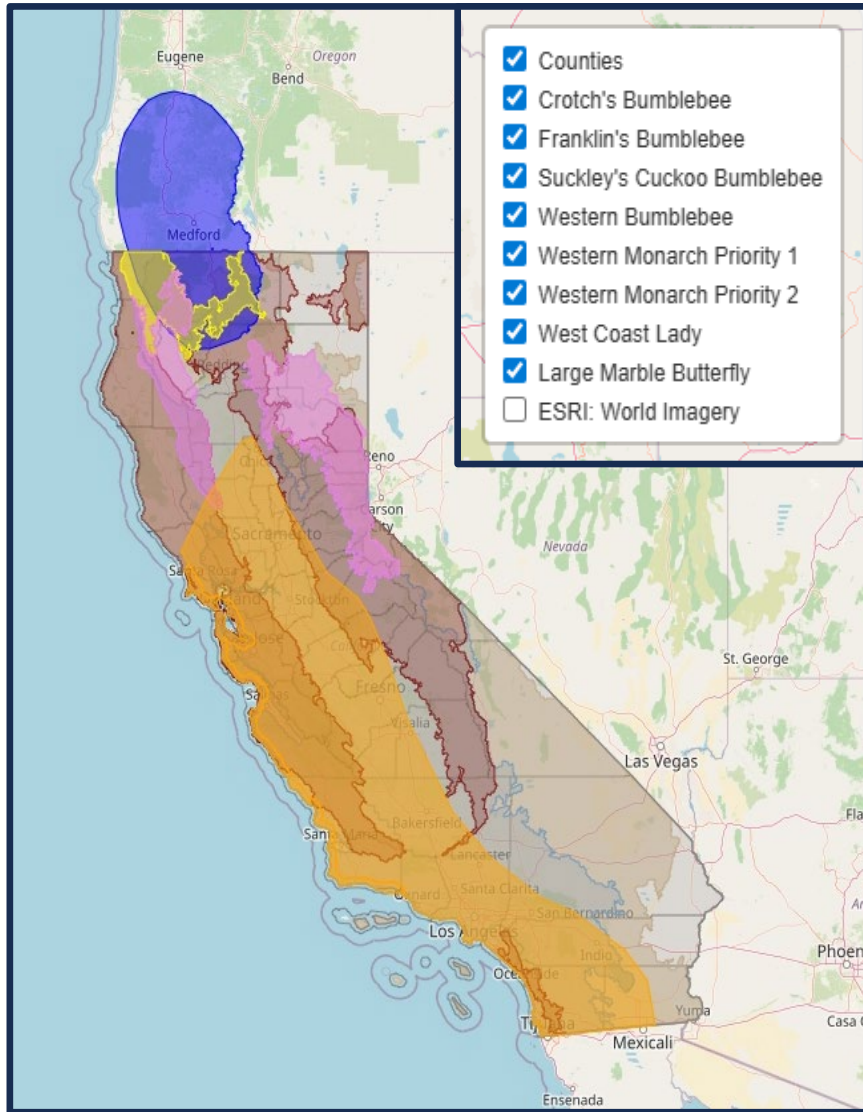
InsectaFlora



California Native



# CSC Research Department Projects



## 1. *What pollinator mixes work?*

- Off-the-shelf vs. custom blends
- Native vs. non-native
- Annual vs. perennial

## 2. *Where can they be planted?*

- On-farm, Service Area
- Species maps

## 3. *What certifications are available?*

- Bee Better Certified, Equitable Food Initiative, Fair Trade USA, Global G.A.P, Sustainably Grown, USDA Certified Organic



## 4. *ESA compliance*

- EPA & Bulletins Live! Two

# CSC Research Department Projects



In collaboration with Pollinator Partnership (P2), we are developing a short technical guide for growers interested in including habitat near their fields that supports integrated pest management and pollinator conservation efforts.

## TABLE OF CONTENTS

- Introduction
- Pest Pressures in Strawberries
- Benefits of Adding Habitat to Strawberry Fields
- Establishing Habitat
- Seed Mix Options
- Managing Habitat
- Pesticide Application Guidance
- Grower Resources
  - Pollinator-Friendly Certifications
  - Funding Opportunities

## Winter

### LATE PLANTING & EARLY BLOOM

If in a more mild, coastal climate, planting can occur as late as February. For Fall plantings, germination may occur as early as December.

## Spring

### BLOOM & MAINTENANCE

During early establishment, hand weeding is essential to reduce competition. Wildflower seed mixes are in full bloom during the Spring and early Summer.

## Summer

### MAINTENANCE & SITE SELECTION

If Lygus pressure is an issue, trap crop strips may need to be terminated; if not an issue, continued watering may extend blooms through the early Summer.

## Fall

### SITE PREP & PLANTING

Preparation for a planting site can be timed with other field prep activities. The ideal time to seed native wildflowers is in November and December.

**POLLINATOR  
PARTNERSHIP**



# CSC Research Department Projects



## Biologically Integrated Farming Systems

### Optimization of steam soil disinfestation for healthy soils and communities around the ag-urban interface of coastal California

Project leads: Dr. Darryl Wong and Janet Broome, UC Santa Cruz; Steve Fennimore, Smart Steam Applications for Agriculture LLC; Peter Henry, USDA ARS; Mark Bolda, UCCE; Nicholas LeBlanc, USDA ARS; Oleg Daugovich, UCCE; Rachael Goodhue, UC Davis

Project funding: \$1 million

This project will fund the development, evaluation, and demonstration of non-chemical alternatives to pre-plant fumigants in strawberry fields, especially in areas near schools, daycare centers, and other sensitive sites. Project leaders will establish demonstration plots on the Central Coast to replace soil fumigation with steam injection, disease-resistant varieties, and other methods. Soil fumigants, used to control pathogens, nematodes, and weeds, are facing increased regulatory restrictions. Outreach and community engagement will be conducted in collaboration with key partners including the California Strawberry Commission, local growers, the Santa Cruz County Agricultural Commissioner, California Certified Organic Farmers, and the Pajaro Valley Unified School District.

# CSC Research Department Projects

## Impact of Plantsauna Treatment on Fruit Yield

Project leads: Mr. Rod Koda, Mark Bolda, UCCE, Melody Meyer-Jertberg, CSC

Project funding: \$0 (In-kind)



# CSC Research Department Projects



**Pacific Branch Entomology  
Team Award**

*Goes to...*

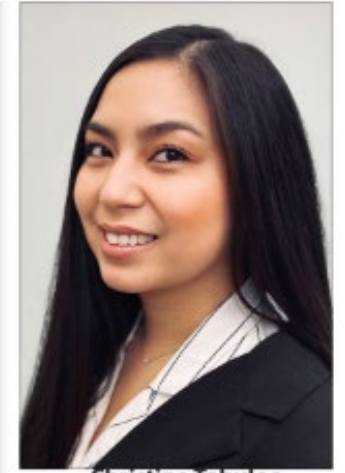
**Spotted-Wing Drosophila  
Resistance Team**



Frank Zalom



Joanna Chiu



Christine Tabuloc



Andrew Molinar



Hillary Thomas-Sanchez



Mark Bolda

# UC Davis Strawberry Breeding

'UC Surfline'



Short Day  
Early fruiting & yield  
**Fusarium Resistant**

'UC Monarch'



Short Day  
Exposed fruit  
Small plant canopy  
**Fusarium Resistant**

'UC Golden Gate'



Day Neutral  
Early to midseason  
Excellent shelf-life  
**Fusarium Resistant**

'UC Keystone'



Day Neutral  
Mid-to-late season  
High marketable yields  
**Fusarium Resistant**

'UC Eclipse'



Extreme Day Neutral  
Summer plant  
Large Fruit  
**Fusarium Resistant**



# Cal Poly Strawberry Center

Gerald Holmes, Shashika Hewavitharana, Mohammad Aghaee, John Lin

Pathology | Entomology | Automation

# Automation Projects: 2017-2025

**Green = Available & Red = Pending**

## Non-Chemical Pest & Disease Control



Optimized Bug Vacuum



Weed / Runner Mechanical Remover

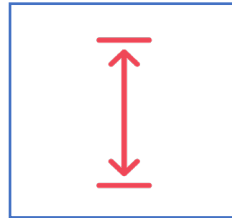


Cost Effective UVC

## Enhanced Pest & Disease Control



Optimized Spray Rig



Equipment Operator Aid

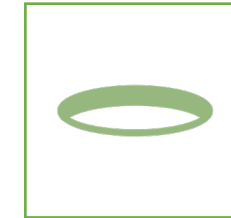


Lygus Bug Monitor

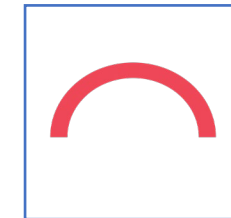
## Workforce Efficiency & Safety



Decapper




Cross Hole Puncher / Burner



Hoop House Arch Remover

Year	Dates	
2022	October to November	Wats
2023	October to November	Wats
2024	October to November	Wats
2025	October to November	Wats






## Advanced Heated Hole Puncher Solutions for Strawberries


Increase Farm Efficiency and Crop Uniformity with Precision Ag's Heated Hole Puncher

"Design Inspired by the California Strawberry Commission's automation team"


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-  **COVERS 1-2 ACRES PER HOUR**

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-  **SINGLE BED TWO LINE OPERATION FOR 48"-52" BEDS**

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-  **ADJUSTABLE SPACING, WIDTH, GROUND ROLLER, FOR CONFIGURATION**

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-  **MECHANICAL TIMING SYSTEM WITH PROPANE HEATING BURNER HEADS**

### ON-SITE SERVICES

- 1 Schedule Service**  
Get in touch to set a time that suits your farm's needs.
- 2 Equipment Provided**  
We arrive with our own sanitized tractor, sanitized machine, and operators.
- 3 In-Field Operation**  
Provide service to growers specification.

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### MAKE A PURCHASE

- 1 Reserve A Machine**  
Get in touch to set machine specs and lead time.
- 2 Custom Build**  
Machine fabricated to specs.
- 3 Machine Pickup / Delivery**  
Machine delivered and setup by PAS to growers satisfaction.

### CONTACT INFO

<p><b>Anthony Sandoval</b> tony@pas.farm 831-747-0086</p>	<p><b>Hector Camacho</b> hector@pas.farm 831-206-5552</p>
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# Acknowledgements

- **California Strawberry Commission**

- *Andrew Molinar, Erika Escalona, Gabriel Sacher*
- *Mark Martinez, Alex Ayala, Amrith Gunasekera*
- *Jason Sharrett, Miriam Mendez, Saul Valdez, Roberto Mendoza*
- *Jodi Reinman, Diana Garcia*
- *Rick Tomlinson, Chris Christian, Gurpreet Chohan*

- **Automation Team @ Cal Poly**

- *John Lin, Genki Konda, Aiden Fischer, Brendan Holt*

- **Cal Poly Strawberry Center**

- *Gerald Holmes, Shashika Hewavitharana, Mohammad Aghaee, Alison Stevens, Kyle Blauer, Samantha Simard*

- **University, Government, and Industry Researchers**

- *Mitchell Feldmann, Glenn Cole, Allison Krill-Brown, Elias Marvinney*



**THANK YOU**

