Building more resilient and sustainable food systems:

- 1. Evaluating the role of non-crop areas as habitat for insect pests and natural enemies
- 2. Modelling the effect of climatic factors on pest populations

Protecting and restoring ecosystems:

1. Assessing prescribed burning for invasive species control

Maripaula Valdes-Berriz, SRA III

PI: Oleg Daugovish

In collaboration of UCCE Ventura County advisors and staff Supported by the Thelma Hansen Fund Competitive Grant Program









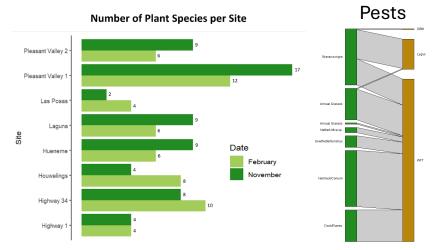


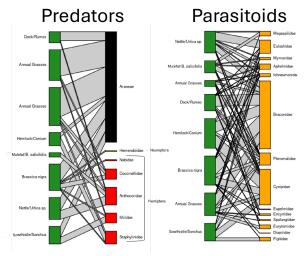




The role of year-round vegetation in agricultural ditches as refugia for key insect pests and their natural enemies in Ventura County

- Explores the relationship between ditch vegetation and the presence of 3 insect pests and their predator-parasitoid complex
- Millions in losses from DBM, WFT, and Lygus
- 8 ditch sites, 4 seasons/ dates
- Bilingual materials with specific recommendations for ditch vegetation management and presentations
- A collaboration UCCE Ventura advisors, community education specialists, SRAs





Assessing Consecutive Applications of Prescribed Fire and Seeding for Reducing *Centaurea spp.* Cover for Habitat Restoration in the Ventura River Watershed

- Assesses the effectiveness of burning and broadcast seeding for decreasing the density of yellow star thistle and increasing native species cover
- Ventura River Steelhead Preserve
- Target species: yellow star thistle and other invasives
- Burning and seeding treatments
- Present at field days and stakeholder meetings on the effectiveness and challenges of using prescribed fire.
- Partners: Ojai Valley Land Conservancy, VC Resource Conservation District, CALFIRE, VC Fire Dept.









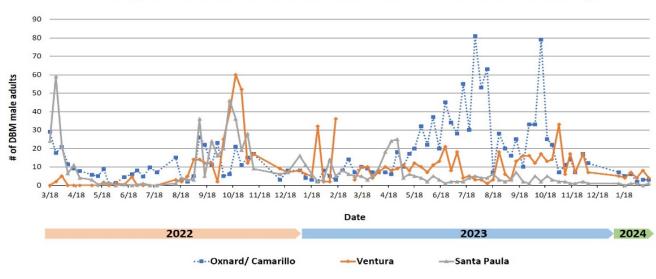


Uncovering the climatic, seasonal, and landscape factors that affect abundance and management of Diamondback Moth (*Plutella xylostella*) in Ventura County

- New! Investigates how climatic and environmental conditions affect DBM abundance (counts of adult males) in Ventura County
- Assess sources of climatic data for modelling DBM abundance
- 2 years of weekly DBM counts (10-12 traps) from 3 VC regions
- Share finding with PCAs and growers through presentations, articles and an interactive web tool
- Partners: Local PCAs supported monitoring efforts, UC IGIS



Average Counts of Diamondback Moth Adult Males in 3 Areas of Ventura County



Results and Outcomes

Ditch project

- ESA Conference (Aug. 2024)
- PAPA (September 2024)
- CAPCA (Feb. 2025)
- Other meetings and conferences
- Industry and peer-reviewed articles
- Bilingual recommendations for ditch veg. management

Rx burning for YST

- Coordinated a workshop/field day in Ventura County for Rx burning and grazing (April 2024)
- Presentation at CA Wildfire Conference 2023 field day
- Newsletters/ posts and presentations by OVLC and VCRCD

DBM modelling

- Improved understanding of DBM dynamics in VC recommendations for management
- Extend this knowledge to stakeholders through presentations, publications, and an interactive web tool (through Shiny app)
- Industry and peer-reviewed publications









