UC CE UNIVERSITY OF CALIFORNIA Agriculture and Natural Resources | UC Cooperative Extension

Imperial County Agricultural Briefs

November 2024 (Volume 27 Issue 10)

Features from your Advisors

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Junta Agrícola

PARA PEQUEÑOS AGRICULTORES HISPANOS

Ven y descubre cómo la Extensión Cooperativa de la Universidad de California en Imperial puede ayudarte a fortalecer tu producción agrícola.
Te invitamos a conocer nuestros servicios y compartir con nosotros los desafíos que enfrentas para mejorar tu productividad.

¡Habrá refrigerios!

Escanea para registrarte
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da click en este enlace

6 de Noviembre de 2024, 2:00 a 4:00 pm

1050 E. Holton Rd, Holtville, CA, 92250

¿Tienes alguna duda, ayuda con tu registro o requieres adaptaciones especiales para tu visita?
Contáctanos

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UNIVERSITY OF CALIFORNIA
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Meeting

November 2024 Growers and PCA Meeting at UCCE Imperial County

Register to join us for this free workshop: https://surveys.ucanr.edu/survey.cfm?surveynumber=43844
Si necesita traducción simultánea al español, este servicio estará disponible a petición.
For more info, contact: ampastranaleon@ucanr.edu or arbabu@ucanr.edu

Location: UCCE Imperial County, 1050 E. Holton Road, Holtville, CA 92250

Date and Time: Wednesday, November 20, 2024 (2:00 p.m. - 3:30 p.m.)

CA DPR: 1.0 "Other" hours applied for

Agenda

2:00 **Onion downy mildew** - *Ana M. Pastrana, Plant Pathologist, UCCE Imperial, Riverside and San Diego Counties*

2:20 **Sweetpotato whitefly management in Imperial Valley cropping system: past, present and future** - *Arun Babu, Entomologist, UCCE Imperial County*

2:40 **Nematode management options in low desert vegetable production** - *Philip Waisen, Vegetable Crop Advisor, UCCE Riverside County*

3:00 **Current disease and pest challenges in Imperial County - Active discussion with local PCA's, and Entomology, Plant Pathology and Vegetable Crop Advisors**

3:25 **Closing remarks**

AREAWIDE MONITORING OF KEY INSECT PESTS ACROSS THE IMPERIAL VALLEY: OCTOBER 2024 UPDATES

Arun Babu – Entomology Advisor – UCCE Imperial County

Since the first week of August 2024, the UCCE Entomology program at Imperial County has maintained a yellow sticky trap network across the Imperial Valley. This trap network aimed to facilitate landscape-level monitoring of the population dynamics of adult whiteflies, western flower thrips, flea beetles, and aphids throughout the year. The trap set up in the field consists of a 6 X 12 in (15.2 x 30.5 cm) yellow sticky trap (Olson Products, Medina, OH), shaped into a cylinder, attached to a wooden stake using a binder clip, and positioned about 60 cm above the ground (Fig. 1A and 1B). The traps are distributed throughout the Imperial Valley, covering the major agricultural locations (Fig. 1C). Insects that are attracted to the yellow color of the traps and those that land on the surface of the trap during the flight get trapped on its sticky surface. The traps are replaced weekly and are examined in the laboratory under a stereo microscope to count the pest population.

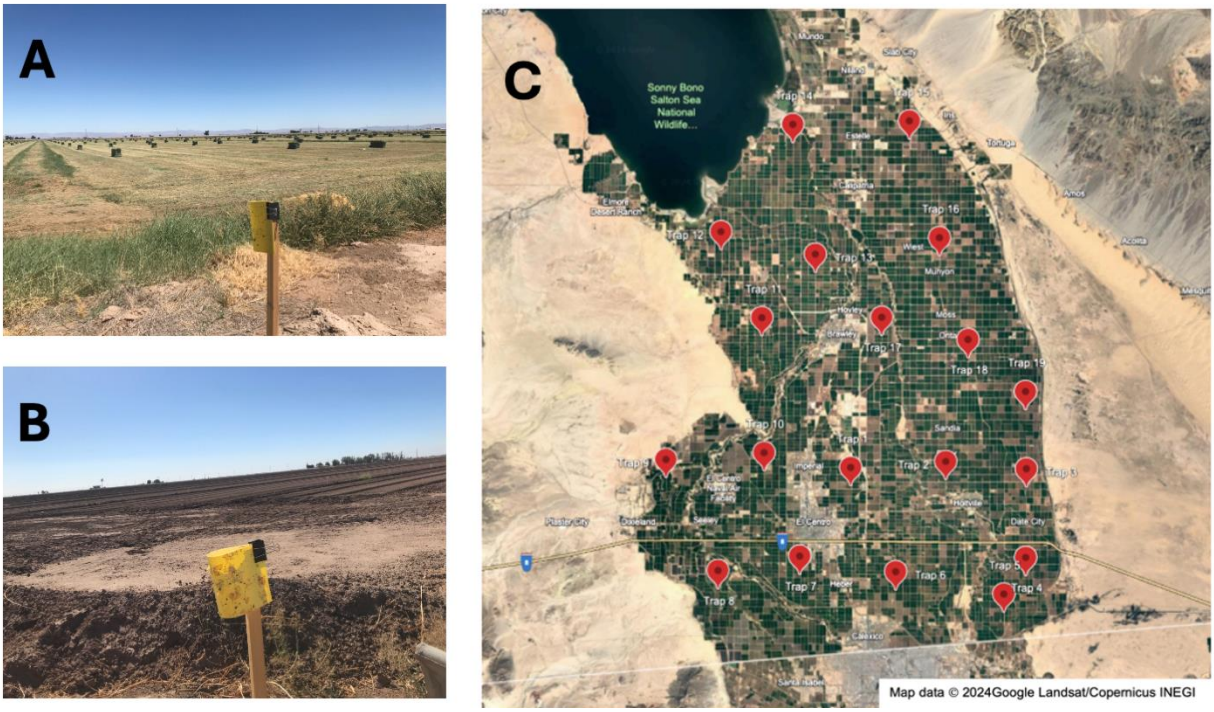


Fig. 1 A & B) Yellow sticky traps in various fields, and C) Trap locations across the Imperial Valley.

Insect count data from these traps identify the adult insect activity of targeted pests around the field. Since several biological and physical factors and farm operations (insecticide sprays, dust from the land preparation, crop harvest, etc.) can influence insect counts in the traps, the insect numbers in sticky traps do not always strongly correlate to the actual infestation levels in the grower's field. Despite this, the trap counts are a valuable indication of adult insects' movement across the landscape. Moreover, collecting the trap data across

multiple years will help establish a baseline of pest activity across the season. This historical pest data can then be compared with current pest activity in the traps to identify population trends. The traps are also screened for potential invasive insect pests, including Asian citrus psyllids, spotted lanternflies, Mexican fruit flies, etc.

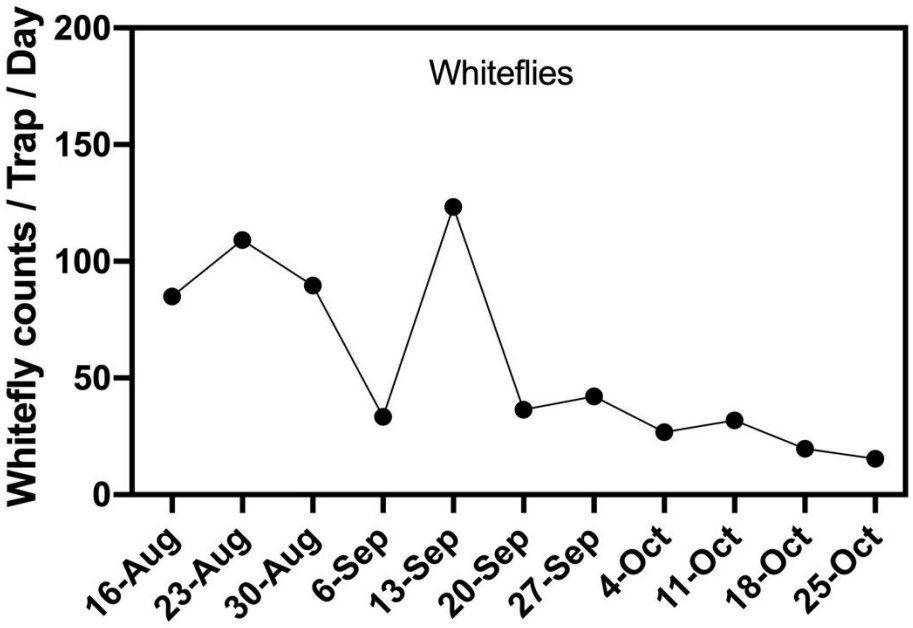
This project is supported by the Imperial County Agricultural Benefit Program grant for 3 years (2024-27).

Insect count updates for October 2024

The updated insect counts from the monitoring trap network are presented below. Each dot in the graph represents the average insect counts from 19 traps across the Valley for that sampling week, and the value is expressed as pest counts per trap per day.

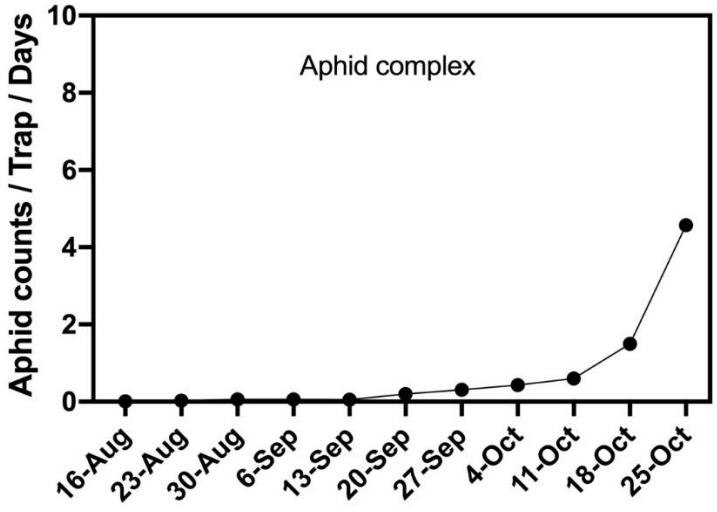
Whiteflies

The whitefly counts in the traps consisted mainly of sweetpotato whitefly (*Bemisia tabaci* MEAM1). Additionally, a small fraction of the total count (< 5%) comprises bandedwinged whiteflies, *Trialeurodes abutilonia*, and other minor species. We observed their numbers decreasing in the traps for the last couple of weeks.



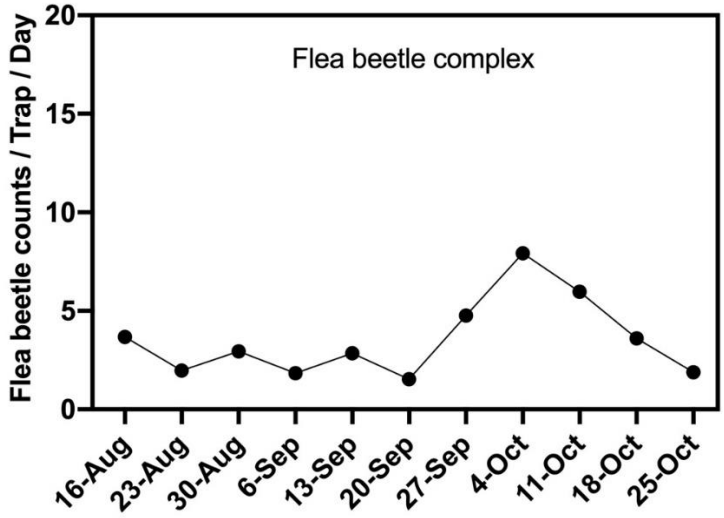
Aphids

The trap counts data of aphids below do not focus on any single species but represent the aphids complex in the Valley. The trap capture data suggests that alate (winged) aphids were almost absent in the valley during August and until the first half of September. However, with the onset of cooler weather, their numbers are steadily increasing in the Imperial Valley.



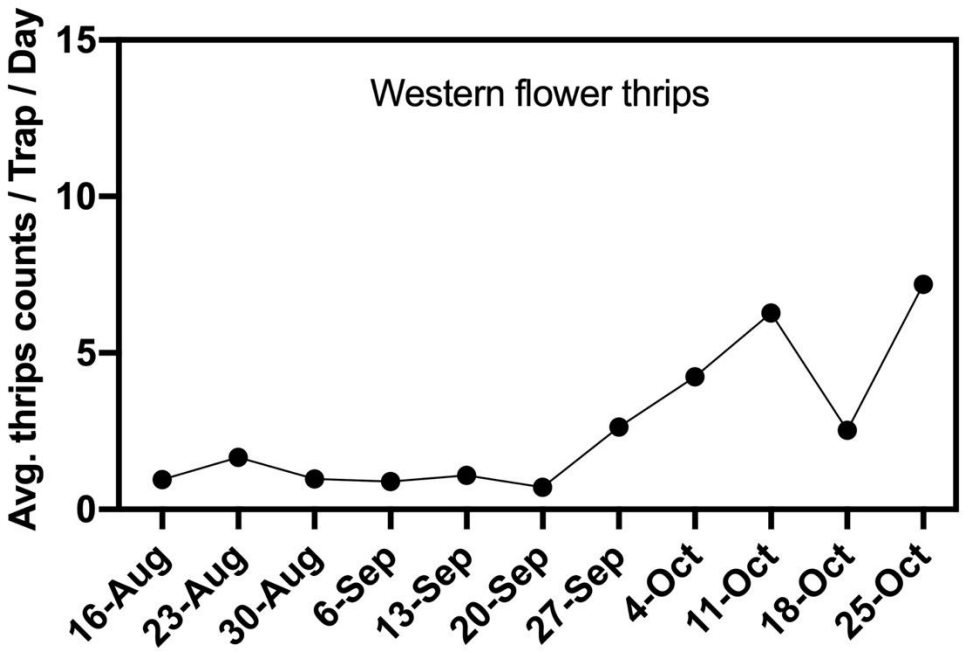
Flea beetles

The flea beetle counts in the traps comprised the pale-striped flea beetle, *Systena blanda*, desert corn flea beetle, *Chaetocnema ectypa*, and a few other minor species.



Western flower thrips

While the traps contained several thrip species, only western flower thrips, *Frankliniella occidentalis*, the major thrip species of concern for several crops in Imperial Valley, were counted to provide more specific data. Similar to the aphid counts in the traps, the western flower thrips numbers also have increased over the last couple of weeks.



Those interested in additional data from this project, including individual trap count data, can contact Arun Babu at (442) 265 -7708 or arbabu@ucanr.edu.

Join us this year for the 2024 Practical Training of Nitrogen Planning and Management in Organic Production of Annual Crops!

- Virtual Event
- Cost: $30 *(No one will be turned away due to lack of funds. Please email us to inquire)*
- Limited to 80 attendees. Register soon!
- Habrá traducción al Español - Live Spanish Translation will be provided

Continuing Education:

- Earn 8 hours of CDFA-INMTP continuing education credits (formerly CURES CE Credits)
- Earn 8 hours CCA credit



About this workshop:

In this 4-part series, participants will learn how to estimate nitrogen release from diverse organic sources and translate that knowledge to nitrogen fertilization plans and regulatory reporting requirements. Over the first 3 sessions, we will cover the most common sources of nitrogen and complete a nitrogen budget. In session 2, participants will be able to work on and receive feedback on their own nitrogen budgets. In session 4, participants will hear from growers about how they manage nitrogen and develop a budget.

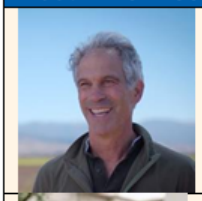
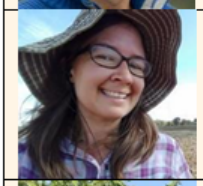
Who should enroll?

Growers, CCAs, PCAs and other agricultural professionals who are interested in learning about nitrogen management in organic production are encouraged to enroll.

Click here to Register!

https://na.eventscloud.com/2024nitrogen

Dates & Time	Session Information
Monday, November 18, 1:00-3:00 PM (PT)	**Part 1:** Understanding Nitrogen: The Nutrient, the Role of Microbes and the Relevance of Soil Organic Matter We will begin with an overview of the sources, transformations and fates of sources of organic nitrogen in soil. Foundational to this, we'll cover the role and dynamics of microbes in nitrogen management, and how that impacts management decisions. Lastly, we'll discuss using nitrogen budgets to understand the sources and proportions of available nitrogen to meet crop demand. Speakers: Daniel Geisseler, Amelie Gaudin, and Margaret Lloyd
Monday, November 25, 1:00-3:00 PM (PT)	**Part 2**: Estimating Nitrogen Release from Organic Amendments and Contributions from Cover Crops This session will focus on estimating nitrogen release from compost, organic fertilizers and cover crops. In addition, participants will be invited to apply the training to their own operations and receive feedback on the budget calculations during this session. Speakers: Patricia Lazicki and Margaret Lloyd
Monday, December 2,	**Part 3:** Putting It All Together: Completing a Nitrogen Budget, Synchronizing Nitrogen Release with Nitrogen Demand, and Using Soil Tests

1:00-3:00 PM (PT)	In this session, we will address specific aspects of organic soil fertility management in vegetables. Discussions will include nitrogen in irrigation water, managing water for nitrogen optimization, crop nitrogen demand and strategies to supply demand, as well as using and interpreting soil testing. Specific references will be made to strategies for complying with forthcoming regulations. We will conclude with a discussion on new frontiers in plant's nitrogen acquisition science. Speakers: Daniel Geisseler, Joji Muramoto, Michael Cahn and Margaret Lloyd
Monday, December 9, 1:00-3:00 PM (PT)	Open House/Grower Panel
About the Presenters	
	**Michael Cahn** is an irrigation and water resources Farm Advisor for UC Cooperative Extension in Monterey County. His research and extension program focuses on irrigation efficiency, nutrient use of crops, and protecting water quality. He led the development of CropManage, an online decision support tool for irrigation and nutrient management.
	**Amélie Gaudin** is Associate professor of Agroecology in the Department of Plant Sciences at UC Davis. Her research focuses on measuring the impacts of diversification on soil health and functions and resilience of agriculture to climate change.
	**Daniel Geisseler** is a Cooperative Extension Specialist in the Department of Land, Air and Water Resources at UC Davis. Daniel's research and outreach focuses on nutrient turnover and plant nutrition in agricultural systems. He is interested in the effects that different management practices have on nutrient use in California crops and how nutrient use efficiency can be improved, particularly with nitrogen
	**Patricia Lazicki** is the Vegetable Crops Advisor for Yolo, Solano, and Sacramento Counties, working mainly in tomatoes. Her research interests include soil health, and nutrient management and fertility in organic annual cropping systems.
	**Margaret Lloyd** is the Organic Agriculture and Small Farms Advisor for Yolo, Solano and Sacramento Counties. She runs an active research and outreach program focused on nutrient and pest management for organic vegetable farms.
	**Joji Muramoto** is a Cooperative Extension organic production specialist at UC Santa Cruz. His research and extension focus on nitrogen and soilborne disease management in organic cropping systems across the state.

For more information contact:

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Margaret Lloyd, Event Lead, mglloyd@ucanr.edu, 530-564-8642

IMPERIAL VALLEY CIMIS REPORT AND UC WATER MANAGEMENT RESOURCES

Ali Montazar, Irrigation and Water Management Advisor, UCCE Imperial, Riverside, and San Diego Counties

The reference evapotranspiration (ET_o) is derived from a well-watered grass field and may be obtained from the nearest CIMIS (California Irrigation Management Information System) station. CIMIS is a program unit in the Water Use and Efficiency Branch, California Department of Water Resources that manages a network of over 145 automated weather stations in California. The network was designed to assist irrigators in managing their water resources more efficiently. CIMIS ET data are a good guideline for planning irrigations as bottom line, while crop ET may be estimated by multiplying ET_o by a crop coefficient (K_c) which is specific for each crop.

There are three CIMIS stations in Imperial County include Calipatria (CIMIS #41), Seeley (CIMIS #68), and Meloland (CIMIS #87). Data from the CIMIS network are available at: http://www.cim is.water.ca.gov. Estimates of the average daily ET_o for the period of October 1 to December 31 for the Imperial Valley stations are presented in Table 1. These values were calculated using the long-term data of each station.

Table 1. Estimates of average daily potential evapotranspiration (ET_o) in inches per day

Station	November		December		January	
	1-15	16-30	1-15	16-31	1-15	16-31
Calipatria	0.13	0.11	0.09	0.09	0.09	0.10
El Centro (Seeley)	0.14	0.12	0.10	0.09	0.10	0.11
Holtville (Meloland)	0.13	0.11	0.09	0.08	0.09	0.10

For more information about ET and crop coefficients, feel free to contact the UC Imperial County Cooperative Extension office (442-265-7700). You can also find the latest research-based advice and California water & drought management information/resources through link below: http://ciwr.ucanr.edu/.