UC ANR Innovate
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UC ANR CONNECT

Field Day Guide

UC ANR Connect Field Day Event Information and Company Look Book

DATE	LOCATION	FOCUS	COHORT
August 06, 2026	Salinas Valley	Coastal Vegetables	No. 08

VERDANT ROBOTICS
SKYSENSE
SAMI ROBOTICS
NIQO ROBOTICS
MANTIS AG
HIGH DEGREE
ECOROBOTIX
CARBON ROBOTICS

Thank you for joining us.

Today's Connect Field Day brings together growers, agricultural professionals, researchers and technology developers for a practical look at emerging tools for coastal vegetable production.

Throughout the morning, you'll see a range of agricultural technologies demonstrated under real field conditions and meet the people developing them. These technologies were selected through a grower-informed process because they address current production challenges and show potential to provide practical value for coastal vegetable operations.

Use this guide to learn about the participating technologies, identify the demonstrations most relevant to your work and connect with the teams behind each solution. Ask questions, share your experience and offer candid feedback. These conversations help developers better understand real production conditions while giving you an opportunity to influence how their technologies evolve.

Thank you to the growers, tech companies, researchers, ag businesses, partners, field crews and volunteers who contributed their time and expertise to make today's field day possible.

We are especially grateful to the the California Leafy Greens Research Board and Jennifer Clarke, Mark Mason, and Farmhand Ventures for helping organize the event; to the Monterey Bay Chapter of the California Association of Pest Control Advisors and to the CA AgTech Alliance for your support and investment. A special thank you to Top Flavor Farms and Sabor Farms for seeing the value of innovation and welcoming this event for years.

Carbon Robotics

AI-guided lasers eliminate weeds in specialty row crops without herbicides or soil disturbance.

WHAT IT DOES

Carbon Robotics develops AI-powered agricultural equipment for nonchemical weed control. Its tractor-mounted LaserWeeder G2 uses cameras and computer vision to scan crop rows in real time, distinguish crops from weeds, and direct enclosed lasers at each weed's growing point. The treatment destroys weeds without disturbing the soil or applying herbicides. The system can operate day or night, supports more than 100 crop models, and records field information in the Carbon Ops Center for monitoring and analysis.

DEMO

The Carbon Robotics team will introduce the LaserWeeder G2 and explain how its cameras, computer-vision models, and lasers distinguish crops from weeds. During a live field pass, attendees will observe plant detection and laser treatment in specialty-crop rows. The team will discuss crop models, safety, labor savings, and operating conditions, followed by Q&A.

AT A GLANCE

FORM FACTOR	**Tractor-mounted implement**
CROPS	**100+ crop models incl. leafy greens, vegetables, & herbs**
HQ	**Seattle, WA**
FOUNDED	**2018**

CONTACT

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Ecorobotix

Plant-by-plant AI spraying applies crop inputs in small target zones, substantially reducing chemical use.

WHAT IT DOES

Ecorobotix's ARA is a tractor-mounted ultra-high-precision sprayer for specialty crops. Cameras scan the field, AI algorithms distinguish crops from weeds, and 156 individually controlled nozzles apply products in approximately six-by-six-centimeter target zones. Depending on the crop and treatment, ARA can apply selective or nonselective herbicides, fungicides, insecticides, fertilizers, and crop-thinning products.

DEMO

The operator will select the crop algorithm, treatment type, and application settings before running ARA through the field. Attendees will observe how the cameras detect individual plants and how the nozzles open only over selected targets. The team will discuss supported crops, operating conditions, software, and input savings, followed by Q&A.

AT A GLANCE

FORM FACTOR	Tractor-mounted implement
CROPS	45+ crops, incl. leafy greens, brassicas & beans
HQ	Pasco, WA (US); Switzerland (Global)
FOUNDED	2011

CONTACT

Name	U.S. Sales Team
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High Degree

A pre-plant steam-treatment service that controls weeds and soilborne pathogens without chemical fumigants.

WHAT IT DOES

High Degree builds and operates field-scale equipment that injects steam into soil before planting. Heat treatment can control weed seeds and soilborne pathogens without leaving chemical residues or requiring fumigant buffer zones and reentry periods. Treatment depth can be adjusted for the crop and target pest. High Degree offers the technology as a service, allowing growers to use it without purchasing or maintaining specialized steam equipment.

DEMO

High Degree will conduct a pre-plant pass with its tractor-pulled steam-treatment equipment. The team will explain steam generation, injection depth, target soil temperatures, travel speed, and water requirements. Attendees will learn how thermal treatment can control weeds and soilborne pathogens before planting, followed by Q&A.

AT A GLANCE

FORM FACTOR	Tractor-pulled implement
CROPS	Berries, vegetables & other high-value crops
HQ	Salinas Valley, CA
FOUNDED	2025

CONTACT

Name	Austin Bowie
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Mantis Ag

Row-crop Thinning and Smart Spraying that achieves optimal crop spacing, reduces growing costs, and cuts pesticide use by 90%.

WHAT IT DOES

Mantis Ag Technology develops automated precision-spray equipment for vegetable row crops. The Matins Ag Thinner uses machine vision to identify crop and weeds, allowing its precision sprayers to simultaneously thin, apply beneficial materials, and perform intra-row banding, improving efficiency and saving growers money. Their Smart Sprayer isolates beneficial applications to crop foliage throughout the crop lifecycle, offering up to a 90% reduction in pesticide use over traditional broadcast spray.

DEMO

The Mantis automated lettuce thinner will run through green-leaf lettuce at the two-true-leaf stage. Using machine vision, the equipment will target individual plants and apply water with blue and red dye to make the thinning and beneficial application pattern visible. The team will explain plant selection, target-spacing controls, and application versatility, followed by Q&A.

MANTIS AG TECHNOLOGY

AT A GLANCE

FORM FACTOR	**Tractor-pulled implement**
CROPS	**Lettuce & other vegetable row crops**
HQ	**Gonzales, CA**
FOUNDED	**2015**

CONTACT

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Niqo Robotics

An AI-powered, tractor-mounted thinner that identifies individual plants and automates thinning, weeding and beneficial applications.

WHAT IT DOES

The Niqo RoboThinner is an AI-powered, tractor-mounted thinner designed for commercial vegetable operations. Its cameras identify individual plants, while targeted nozzles thin the stand, eradicate weeds and support simultaneous or independent beneficial applications. The system can operate in weedy fields and is designed to provide consistent plant spacing at commercial field speeds.

DEMO

Axis Ag will demo the Niqo RoboThinner in five- or six-line lettuce at the two-true-leaf stage. After aligning the system to the planted rows, the machine will run through the field while the team explains its AI plant detection, thinning decisions, application controls, and field capacity, followed by Q&A.

AT A GLANCE

FORM FACTOR	Tractor-mounted implement
CROPS	Lettuce, brassicas, onions, tomatoes, melons
HQ	Bengaluru, India
FOUNDED	2015

CONTACT

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Sami Robotics

A multi-arm robotic platform that selectively harvests mature vegetables and turns every field pass into useful crop data.

WHAT IT DOES

Sami Robotics is developing a multifunctional field platform for labor-intensive crop operations. Its first commercial application uses cameras, artificial intelligence, and multiple robotic arms to identify and selectively harvest market-ready vegetables. As it works, SAMI records crop information that can help forecast what will be ready for harvest in the coming days. The company's current focus is on developing the platform for harvesting lettuce and brassicas.

DEMO

SAMI will run through young romaine lettuce with leaves at least five to six inches tall. The robotic arms will cut and grab the selected romaine heads and harvest the crop autonomouslyv. The team will explain the vision system, arm movements, operator controls, crop-data collection, and plans for lettuce and brassica harvesting, followed by Q&A.

AT A GLANCE

FORM FACTOR	Self-propelled field robot
CROPS	Lettuce, broccoli and cauliflower
HQ	Varennes, Quebec, Canada
FOUNDED	2023

CONTACT

Name	Pascal Labrecque
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Skysense

AI-enabled drones deter birds and turn aerial imagery into stand counts, weed maps, and field intelligence.

WHAT IT DOES

Skysense provides drone-based crop protection and agriultural intelligence. Its remotely supervised drone patrols can deter birds from vulnerable fields, while high-resolution and multispectral imagery is analyzed with artificial intelligence to map fields, count crop plants and weeds, identify crop stress, and monitor weed pressure. The company delivers data collection, analysis, and reporting as a service so growers can act on field conditions without extensive manual scouting.

DEMO

SkySense will demonstrate a drone flight over the vegetable field to collect high-resolution imagery. The team will explain flight planning, sensors, and how artificial intelligence converts imagery into stand counts and weed maps, then will walk through the resulting field data and its bird-deterrence programs, followed by Q&A.

Skysense

AT A GLANCE

FORM FACTOR	**Drone-based system**
CROPS	**Specialty crops, vineyards & orchards**
HQ	**Kennewick, WA**
FOUNDED	**2020**

CONTACT

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Verdant Robotics

VERDANT ROBOTICS

AI-powered precision application system that aims individual micro-shots at weeds or crops for weeding, thinning, and input applications.

WHAT IT DOES

Verdant Robotics' SharpShooter is a tractor-mounted precision-application system. Cameras and physical AI detect and track individual crops and weeds, then aim discrete micro-shots only at selected targets instead of broadcasting material across the entire field. The same system can perform weed control, crop thinning, and input applications. Applying inputs only where needed can help growers reduce input and labor costs while protecting yield and improving operational efficiency. The SharpShooter delivers up to 99% herbicide savings, reduces manual labor costs by up to 85%, and achieves ROI within 6 to 18 months.

DEMO

Two Verdant Robotics team members will introduce the SharpShooter and explain how its Aim & Apply technology detects and targets individual crops and weeds. The team will then conduct a live precision-application demonstration in iceberg or romaine lettuce and discuss labor savings, application accuracy, and input efficiency, followed by Q&A.

AT A GLANCE

FORM FACTOR	**Tractor-mounted implement**
CROPS	**100+ crops & production systems**
HQ	**Hayward, CA**
FOUNDED	**2018**

CONTACT

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Integrated Drip Irrigation Trailer

Smart irrigation monitoring brought directly to the field

Developed by a team led by UC Cooperative Extension irrigation and water resources advisor Michael Cahn, the Integrated Drip Irrigation Trailer combines filtration, pressure regulation, flow measurement and sensors with automated reporting to CropManage. This free, open-source system allows irrigators to remotely monitor pressure and flow across multiple plantings, reduce travel between fields, and make informed irrigation and nitrogen-management decisions using field, weather, soil and crop data.

SEE IT IN ACTION

Watch a live demo of the Integrated Drip Irrigation Trailer at today's field day.

ABOUT MICHAEL CAHN

Michael Cahn, Ph.D., is an Irrigation and Water Resources Advisor with UC Cooperative Extension. For more than two decades, he has helped growers across Monterey, San Benito and Santa Cruz counties improve irrigation efficiency, nutrient management and water quality. Michael also led the development of CropManage, UC Cooperative Extension's free online decision-support tool for planning irrigation and nitrogen applications across more than 40 crops.

CONTACT mdcahn@ucanr.edu cropmanage.ucanr.edu

Padma AGROBOTICS

DV64 AUTONOMOUS ROBOTIC BIRD DETERRENT

Previewing a new approach to bird deterrence for next season

The DV-64, developed by Padma AgRobotics, is an autonomous robotic bird deterrent designed to move through crop rows while carrying an inflatable figure. By creating a mobile, unpredictable presence in the field, the system is intended to discourage birds from settling in or feeding on crops. It offers growers a potential way to lessen bird damage while reducing the labor required to patrol fields and manually scare birds away.

LIVE PREVIEW

See the DV-64 in operation and share feedback to help inform its development for next season.

INTERESTED IN A TRIAL?

Padma AgRobotics is seeking growers interested in trialing the DV-64 next season as a tool to lessen bird damage.

Connect with Raghu Nandivada, CEO, during the field day or contact him at raghu@padmaagrobotics.com.

padmaagrobotics.com

Find your place in the alliance.

CALIFORNIA AGTECH ALLIANCE

The California AgTech Alliance is California's first statewide agricultural innovation network. We connect entrepreneurship, workforce development, and resources across the state, bringing together growers, startups, campuses, workers, investors, and regional stakeholders into one coordinated system. Scan to learn more or visit calagtechalliance.org

Investors/ Incubator Partners

- Farmhand Ventures
- Plug and Play
- SVG Ventures/ Thrive
- AgFunder
- AgStart
- Reservoir Farms
- WET Center
- Venture Catalyst
- ChicoStart
- First California Robotics
- Monterey Bay Tech Hub
- The Yield Lab

Industry partners

- Ag Council
- California Almonds
- Citrus Board
- CAFF
- California Farmworker Foundation
- California Farm Bureau
- Western Growers

Ecosystem Partners

- F3 Innovate
- UC ANR Hopland REC
- Valley Vision
- UC ANR IGIS
- REAP Climate Center
- Monterey Bay Economic Partnership

Regional Representative

- Central Valley Community Foundation
- Community Foundation of Merced County
- Kern County
- North Valley Thrive
- Cal Poly Humboldt
- Escondido AgX
- Uplift Central Coast

Workforce/ Education Partners

- CDFA
- Center for Land Based Learning (CLBL)
- Farm Robotics Challenge
- UC Davis
- Foundation for California Community Colleges
- Fresno State
- Hartnell College
- Imperial Valley College
- Merced College
- Orange Community College
- Reedley College
- UC Merced
- UC Santa Cruz
- AgSTEP
- California State University San Marcos
- Rancho Cielo

Creative Partners

- Epix Studios
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Field Notes

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