

## Hansen Agricultural Research and Extension Center



Located in Santa Paula in Ventura County, the Hansen Agricultural Research and Extension Center (HAREC) is one of nine centers under the University of California Division of Agriculture and Natural Resources.

HAREC researchers focus on methods for improving plant productivity through new and innovative irrigation methods, as well as lead and facilitate extension and education programs for the sustainability and benefit of agriculture and natural resources in Ventura County.



### Primocane blackberry management provides flexibility in fruit production

There is an increasing interest in healthy foods rich in vitamins and antioxidants. Blackberry consumption has become common in the U.S. due to availability of imports from Mexico and recent development of new, higher quality varieties. PrimeArk 45, a public variety from Arkansas, grows well in Ventura County, and in trials, has produced large attractive fruit, some as long as 2 inches. It is a primocane variety (flowers and fruit rapidly develop on the same cane that comes out of the ground in spring) with high yield potential. Trials focused on managing PrimeArk45 to maximize production during August-October when supplies are down and prices are typically up. Two years of ongoing trials at HAREC determined:

- Early pruning at about 20 inches from the ground (tipping) in May allows fruit production to start in July and peak in September.
- Delaying end of the season mow-down of canes from December to February or March tends to increase the productivity of canes in the following year.
- Single plants produce 3-5 lbs of marketable fruit per season in non-fumigated soil with only pre-plant fertilizer and minimal pest management.
- The biggest fruit losses (at some harvests close to 50%) were from spotted winged fruit fly (*drosophila*) infestations, scarring of fruit and bird feeding.
- Protection from high winds and birds may be worthwhile in the case of late fall-winter production.



Flexibility of production of PrimeArk blackberries may provide an opportunity to Ventura County growers for a high-value crop alternative. This can help maintain profitability of farming operations facing high land costs and increased production expenses.

Research conducted by Oleg Daugovish, Mark Gaskell and Mark Bolda

## Enhancing Strawberry Plant Health & Production



Typically fungus is thought of as a microscopic “bug” that causes disease, especially in plants. There is a special class of fungus, entomopathogenic, that specifically targets certain arthropods that are plant pests. In early studies, researchers have found evidence that this fungus in the soil can enhance plant growth. It is theorized that this positive effect is caused by competitive displacement of harmful soil-specific microbes and fungal species, and a mycorrhizal (fungal-plant root) relationship that improves water and nutrient absorption by plant roots.



Field studies are underway at the HAREC to evaluate various entomopathogenic fungi and other materials for their effect on strawberry health, growth and production in a field setting.

Research conducted by Surendra Dara and Oleg Daugovich



### Extension

In 2014 HAREC launched the Sustainable You! Summer Camp, a program designed to help youth understand what it means to be sustainable through fun, interactive activities. Youth ages 9-16 attended the pilot program that centered around five major

areas of sustainability: land, air, food, energy, and water. The five-day pilot camp was a great success and the 19 youth that participated gave it two thumbs up. The pilot program was followed by a Sustainable You! Summer Camp Train-the-Trainer with the idea of expanding the program in summer 2015.



Over 4400 youth (K-5th grade) participated in fall, spring and summer programs which included Farm field trips to the Center, classroom outreach—lessons delivered in the classroom, and Student Farm afterschool.

Additionally, Chris Massa, program lead and Food Corps member assigned to Ventura Unified School District, returned for a second year to collaborate with HAREC to lead activities and education components on the one-acre student farm. From seed to plate, students learned the nuts and bolts of farming.

