Director’s Report: Field Days Offer Tips about Best Management Practices
by Marcia Gibbs

SJSFP is pleased to be part of another San Joaquin Valley growing season.

This year we have more than 3,600 acres enrolled in the project. Enrolled growers are implementing a variety of best practices including planting annual hedgerows to attract beneficial insects, utilizing strip cutting in alfalfa, setting pheromone traps in almonds, and of course monitoring for both pests and beneficials each week. With these practices in place, growers are still making good yields with a quality crop.

Watch for a couple of meetings we will be hosting later this season to learn more about what we do. In our meeting for alfalfa growers, we’ll examine some persistent weed species and offer ideas on weed control. We’ll address pest management issues facing alfalfa growers as well. In addition, a representative from the Fresno County Agricultural Commissioner’s office will present on some pertinent rules and regulations facing all growers in 2018.

A second meeting will be for cotton growers and will feature University of California cotton experts to give growers insight into what to expect as the season progresses and ideas for how to maximize the crop. With cotton prices up, there is some optimism for growers (and a bit of grumbling in the apparel circles).

For the Sustainable Cotton Project and San Joaquin Sustainable Farming Project this news is all a bit bittersweet. With the close of the 2018 growing season, our project will complete its funding cycle through the State Water Resources Control Board. This will be our last season working in the San Joaquin Valley.

We have learned so much from local growers, UC crop experts, and industry representatives and we hope that sharing this information has been useful to you as a grower as well. If we can answer any questions, please contact me at marcia@sustainablecotton.org.

We wish you all a great growing season and hope to see you at one of our meetings.

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Get in touch
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**Staying Safe While Under the Hot Valley Sun**

by Gilbert Mohtes-Chan

We’re entering the two hottest months in the San Joaquin Valley. Triple-digit temperatures are the norm, with July averaging a daily high of more than 98 degrees.

Researchers say your body needs help cooling down when temperatures top 98.6 degrees Fahrenheit.

“You need to prepare for the heat. It can get pretty miserable out there,” says SJSFP Field Scout Jenna Mayfield. Jenna makes sure she always has water and a hat. She also takes breaks from the heat and drinks lots of water during the day as she scouts almonds.

Cal-OSHA prescribes rest, shade, and water for field workers. The law requires employers to provide at least one quart of fresh water per worker every hour and that supervisors should urge them to drink up. They must provide enough shade for the entire crew and a mandatory break every four hours.

During 90-104 degree weather, workers face possible sunstroke, heat cramps and heat exhaustion. These conditions are more likely to occur when temperatures reach 105 degrees or higher.

OSHA and the Carle Center for Rural Health and Farm Safety offer these tips to beat the heat:

- Acclimate to heat slowly over five to seven days. For new workers, increase the amount of time in the heat by 20 percent per day. If you’re already used to hot conditions, you can increase your exposure more quickly. But if you’re away from the heat for four days or more, you’ll need to build up your tolerance again.
- Drink lots of water before, during and after work. OSHA recommends four cups of water per hour. Drink water every 15 minutes, even if you don’t feel thirsty. Avoid sweetened or caffeinated beverages.
- Adjust the timing of certain activities, if possible. Cut back exposure to the sun between 10 a.m. and 4 p.m. Avoid confined spaces during the hottest hours. Consider putting hay in the barn the morning after it’s been baled, or later in the evening when temperatures cool off.
- Take breaks in the shade or a cool environment. Taking five-minute breathers as needed not only cuts down on heat stress, but also makes everyone more productive. Set up simple tents in fields and other unsheltered areas to create needed shade.
- Use machinery with cabs or shades, but don’t skip breaks. Farm equipment also generates a lot of heat.

**Leaf Sampling Assesses Nutrients in Almonds**

by Gilbert Mohtes-Chan

For almond growers, July is an ideal time to do a wellness check on trees. Just like you and me, almond trees need more nutrients as they increase in size. Plant tissues that are nutrient deficient can hamper growth and limit crop quality. Analyzing almond leaves is a good practice to determine any deficiencies and toxicities in the trees. It also can indicate future nutrient demands.

“Depending upon the nutrient and level of deficiency, remediation is possible in the current season, dormant period, or early spring of the following year,” according to David Doll, a pomologist and almond expert with UC Cooperative Extension in Merced County. “Leaf concentrations of major elements (nitrogen, phosphorous, and potassium) can be used along with kernel yield per acre to determine the nutrient budget for the next season.”

While leaf analysis can be done any time of the year, mid-July is an ideal time to take samples and have them analyzed at a lab. Doing analysis during the spring when trees experience active growth can lead to inaccurate information. The reason, Doll says, is that during that time trees are devoting more nutrients to new growth instead of already developed foliage.

Almond field scout Jenna Mayfield takes leaf samples for growers enrolled in the San Joaquin Sustainable Farming Project. She follows a regular pattern in an orchard block, collecting about 100 leaves from non-fruiting spurs on branches about 6 feet high. The samples are taken from trees of the same variety, age, rootstock and soil type.

“Tree samples should be at least 100 feet apart and 20 trees are needed to ensure accuracy and confidence with the results,” Doll says.

The lab results will help growers determine the nutrient needs – such as potassium, nitrogen or phosphorus – for the rest of the season or next year.
Almond Grower Profile:
Nick Tatarakis
by Gilbert Mohtes-Chan

As a youngster, Nick Tatarakis thought it would be cool to drive a tractor and work in the fields like some of his friends whose families operated farms. That chance arose during his junior and senior years of high school when he spent summers and after school hours operating a swather harvesting alfalfa. He got a further taste of farming in his agricultural mechanics class at Dos Palos High School.

Then after graduation, Tatarakis joined a start-up almond hulling and shelling company in Firebaugh as a welder and fabricator.

That was the closest he would get to agriculture, he reasoned. “I never thought it was possible I could get into farming. If you’re not born into farming, you’re not going to get into farming.”

His dream, though, never wavered. Thanks to perseverance and hard work, today the Nick Tatarakis Ranch boasts 250 aces of almonds and 50 acres of pistachios in the Firebaugh area. His operation also manages another 150 acres of almonds and pistachios.

“There’s nothing better than taking dirt and making food with it. It’s rewarding,” said Tatarakis, whose "other job” is as general manager of West Valley Hulling in Firebaugh. He joined West Valley after high school in 1999 and rose to become general manager in 2007.

You might call the 37-year-old Tatarakis a self-made farmer — someone who learned the ins and outs of almonds from growers whose harvested crops came through the hulling and shelling company.

“I knew the growers who were doing the best. I was asking them questions. I tried to learn from the best,” said Tatarakis. As he gathered more information, he became confident that he too could become an almond grower. Money, he thought, would be his biggest hurdle.

With no roots in farming, he drew a few raised eyebrows from agricultural land lenders. Undeterred, he parlayed equity in his early real estate investments to purchase his first 20 acres of farmland in 2005.

Since his entrance into farming, Tatarakis has had to juggle two jobs. He has also invested a lot of his wages back into running and expanding his farming operation.

“You don’t have a lot of free time. You don’t have a lot of free money,” he says. Tatarakis recalls long days spent working at West Valley Hulling before heading to his own orchard to take care of irrigation or other chores after hours.

“I honestly wouldn’t be farming today if it wasn’t for the help and guidance of the principles of West Valley Hulling. They took me under their wing. They helped me get my start.”

As a start-up almond operation, Tatarakis set out to generate a large crop at the outset. He planted 165 trees per acre compared with the more common 132 trees an acre. He saved money by limiting pruning and investing in water, fertilizer, and weed control.

“It’s a five year investment before you make any money. The outcome for me was pretty significant yields in the first few harvests.”

Over time, he was able to add additional acres to his farming business. When his almond operation reached 180 acres, Tatarakis realized he needed to hire a full-time employee to tend to his orchards. He also added a seasonal worker.

“I still have two hats. But I have good employees tending to the ranch,” said Tatarakis, who enrolled in the San Joaquin Sustainable Farming Project (SJSFP) this year. He said the program allows him to enhance his agricultural learning while earning continuing education credit. He also said that the weekly SJSFP scouting reports are a valuable addition to information he receives from his pest control adviser.

“The fact that they have their own scouting and reports weekly is extremely helpful,” he said. “You can’t go wrong having someone else looking at your field.”

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Motorists driving by a local cotton field might be surprised to find a narrow strip of beans, buckwheat, sunflowers, or even corn growing among the crop. It’s not a mistake.

For years, growers have planted annual habitats, or hedgerows, as part of their integrated pest management practices. These habitats provide a home to crop-damaging pests as well as beneficial insects. The practice can save money by reducing the need to buy insecticides. Increasing biodiversity benefits both the farm and the environment by managing pests naturally and storing carbon in the soil. Hedgerows also provide erosion and dust control.

This season, field scout Damien Jelen worked with three SJSFP growers to plant hedgerows along the length of their cotton fields. They planted two rows of corn and one row of sunflowers.

“They are getting quite a few beneficial insects. When I walk into the cotton I don’t see as many pests,” Damien says. Hedgerow plants attract different beneficials and pests than a neighboring crop will draw. Corn and beans, for example, attract green lacewings and minute pirate bugs — natural enemies of thrips, spider mites, and leafhoppers. Sunflowers draw damsel bugs, ladybugs, parasitic wasps and minute pirate bugs — predators of aphids, thrips, caterpillars, and mites. Buckwheat, clover, sorghum, and yellow mustard also are used for the habitats. To enhance diversity, growers will put in a mixture of plants in different rows. The plants are watered at the same time cotton is irrigated.

Dr. Pete Goodell, UC IPM emeritus, has long been an advocate for hedgerows. “This really adds to diversity. Bugs come in and settle in with a new ecosystem. It brings in pollinators and beneficial insects,” he says.