Cotton Field Placement and Lygus

By Gilbert Mohtes-Chan, Sustainable Cotton Project

Every season, a cotton grower might wonder how far crop-threatening lygus will fly to find a nice field to settle down in.

“As far as it has to,” quips Dr. Pete Goodell, a cotton expert and advisor with the University of California Statewide Integrated Pest Management Program in Parlier. “If it has the strength to fly three miles it will.”

Of course, Goodell says, managing lygus is much more complex. It involves a combination of factors: The strength of the host such as an alfalfa field; the distance the pests are from the cotton field; and how a grower manages the lygus source.

The key is understanding the landscape around the cotton field, learning about the neighboring crops, habitat and even uncultivated fields. All this comes into play when it comes to managing lygus and reducing the number of treatment applications in the fields. Effective practices translate into cost savings in material and labor and in the long run more profitable yields.

In recent years, Goodell has worked on a unique interactive, web-based community mapping project designed to inform growers about crops coming up in their area. This information helps cotton growers understand and manage potential pest pressures.

“This kind of study is extremely unique,” he says. He has driven miles and miles up and down roads and highways throughout the San Joaquin Valley to get fields mapped. He also has tabulated lygus monitoring numbers collected by the SJSFP to track pest pressures.

“Lygus will keep moving when a host disappears.” Cotton isn’t a particularly good host and the pest will leave if there is a better alternative such as alfalfa or safflower. Since cotton is harvested later than other crops, it becomes a remaining host for lygus.

Safflower is a great host and early habitat for overwintering pests. Geography also plays a role. If a safflower field is two miles away, the lygus threat may be low. Alternatively, growers would treat a neighboring safflower field for lygus to keep them out of the cotton.

“Alfalfa can take a lot of lygus. Lygus really doesn’t want to leave alfalfa fields unless it really has to,” Goodell said. That’s why he advocates leaving uncut strips of alfalfa near cotton fields.

He recounted an experience of a pest control advisor who sprayed for lygus in cotton weekly over a six to seven-week period in the Buttonwillow area. The field was near a nature preserve where the lygus would tend to migrate preferring the lush landscape to the cotton as it dried down. The bottom line, Goodell says, is know your area’s farm landscape.

Goodell offers his expertise and years of cotton growing experience to growers who are enrolled in the San Joaquin Sustainable Farming Project. If you would like to know more about the project and get information directly from Pete and his colleagues at UC IPM contact Marcia Gibbs at marcia@sustainablecotton.org. The project is accepting applications for the 2012 growing season.
Winter Almond Management

By Gilbert Mohtes-Chan, Sustainable Cotton Project

With winter and a New Year upon us, it’s time for almond growers to head into the orchards and start preparing for this season’s crop.

There are trees to be pruned. There is monitoring for pests to be done. All this adds up to good orchard sanitation practices, which pay off in the long run through better cost savings and improved yields. Wintertime monitoring will determine the need for a dormant insecticide spray, according to Walt Bentley, a long-time entomologist with the University of California Statewide Integrated Pest Management Program.

Bentley joined Merced County UC Cooperative Extension pomology farm advisor David Doll at recent Almond Field Day sponsored by the San Joaquin Sustainable Farming Project. The two offered valuable wintertime tips for preventing infestation from crop-damaging pests, almond diseases and fungicide resistance in the state’s leading export crop, worth about $2.7 billion a year.

The dormant insecticide spray, as it turns out, also is influenced by the presence of scab in the orchard this past year, Bentley told growers. If the farmer had a serious scab problem there should be a copper spray done during the dormant season.

The inclusion of an insecticide during the dormant, such as Dimilin is very effective on peach twig borer (PTB), which is an annual problem. If scab is not a problem, then the PTB spray can be done during the bloom period.

A sampling should be done to determine the presence of San Jose scale and European red mite (eggs) and Brown almond mite (eggs). If scale reaches the level of 20 percent of spurs being infested (you pull them from the main scaffold), then an oil should be used and the dormant option is the choice to make.

If you find low levels of scale, then you don’t need a dormant spray for that pest. All that is needed to control scale, European red mite and brown almond mite is four gallons of dormant oil per acre.

A farmer with soft shell varieties, should make sure to do a mummy count of two trees per acre. The average number of mummies per tree (you take the total number of mummies and divide by the number of trees counted) will give him an estimate of potential damage from navel orangeworm.

The goal is to average two or less mummies per tree. Sanitation is recommended on the hard-shell varieties if damage from navel orangeworm was present this past year.

Controlling the height of your trees also is important for orchard sanitation. This will allow your crews to use 20-foot-long poles to knock off mummy nuts. It’s almost impossible to do so with towering trees. Also growers should eliminate all lower limbs during the first year, which reduces disease problems in subsequent years and also allows better access for tractors and other equipment. Now also is the time to hedge the orchard – opening up a three- to four-foot center avenue between rows to eliminate overlapping branches among trees.

By keeping tree height under control, you allow sunlight to cover the tree uniformly. Allowing sun to reach the orchard floor benefits the drying of the nuts at harvest.
San Joaquin Sustainable Farming Project

By Gilbert Mohtes-Chan, Sustainable Cotton Project

The San Joaquin Sustainable Farming Project is coming off another successful season of helping alfalfa, almond and cotton growers learn valuable strategies to improve profitability while dealing with challenging economic and regulatory climates. Sponsored by the Sustainable Cotton Project (SCP), the program promotes sustainable farming practices in the Lower San Joaquin River Watershed and connects growers with some of the state’s leading extension advisors and researchers. As we enter our third year in 2012, growers in Madera, Merced and Fresno counties still have time to enroll and experience the benefits of participation.

Growers who participate will have the opportunity to work with leading agricultural experts for each crop. They will complete a whole farm self-assessment and strategy for implementing University of California Integrated Pest Management Year Round plans and best management practices on their enrolled acreage.

SCP field scouts work with your existing PCA to augment field scouting of both pests and beneficials. In addition, we offer targeted field days with agricultural experts who deal with current issues, BMP implementation planning and provide annual hedgerow seeds and beneficial insects, when needed.

By participating, you not only will provide benefits back to your community and watershed, but also demonstrate the positive aspects of agriculture. Those include: Keeping land in farming maintains production of local food and fiber products, provides jobs and needed income for local economies as well as providing open space; Farmers are environmental stewards who play an active role in improving water and air quality in local and regional communities; and growing annual and perennial crops brings more carbon into the soil and retains it.

The project actively promotes the positive benefits of farming and our farmers and we would welcome the opportunity to work with you. For more information or to inquire about enrolling, please contact Director Marcia Gibbs at (530) 370-5325 or marcia@sustainablecotton.org or Luis Gallegos at (559) 259-1981 or luis@sustainablecotton.org.

Expert Advice

There are few places where you can go to tap a century of experience and expertise in almond and cotton farming in the Central Valley. Our program offers just that through our partnerships with leading University of California farm advisors and specialists. Here are some of the experts growers can tap by getting involved with the San Joaquin Sustainable Farming Project:

Walt Bentley, an entomologist and almond expert with the UC Statewide Integrated Pest Management program at the Kearney Agricultural Center in Parlier. He has more than 30 years of experience working with almonds and almond growers. Walt offers technical support about production systems, orchard floor management, pruning and other practices. He earned his master’s in entomology from Colorado State University in 1974.

Dan Munk, a farm advisor with the UC Cooperative Extension, Fresno, is a soil scientist who specializes in cotton production systems, irrigation and drainage, soil quality and tillage. He provides expertise to almond and cotton growers about water use and irrigation. He earned his master’s in soil science from the University of California in 1991.

Dr. Pete Goodell has worked nearly four decades in the Central Valley first as a pest control advisor and later as an Integrated Pest Management specialist and administrator for UC IPM. He has promoted sustainable farming for three decades, offering growers his expertise in cotton and field crops. He has written extensively, established public-private collaborations and led community outreach campaigns. Pete earned his doctorate in entomology and nematology from UC Riverside in 1986.

David Doll, UC Cooperative Extension farm advisor in Merced County, produces a popular blog called the Almond Doctor. As a disease expert in almonds, walnuts and pistachios, he is well known for providing timely and pertinent information about what is occurring in the orchards weekly. David has a master’s degree in plant pathology from UC Davis in 2008.
We are excited to announce the launch of our new and improved Sustainable Cotton Project website:

www.sustainablecotton.org

The website contains new and updated content, videos from our project experts speaking at field days, profiles on some of the growers in our project, pertinent resources and much more!

We encourage you to visit the new site by January 30th and enter a drawing to win a grand prize of $100 GAP gift card (one of our marketing project supporters). Runner’s up will receive a SCP t-shirt. To enter, simply visit our “Contact Us” page on the website, and send an e-mail saying you’d like to enter the drawing. One entry per person.

You can also find us online at the following:

BLOG: http://centralvalleyfarmscout.blogspot.com/
TWITTER: http://twitter.com/#!/SustainCotton

San Joaquin Sustainable Farming Project • Winter 2012

Central Valley Fiber, Forage and Nut Digest

RETURN SERVICE REQUESTED

Winters, CA 95694
PO Box 1110