



Light Brown Apple Moth

It's here. Oak Hill Farm is in the quarantine zone. What next?

The Light Brown Apple Moth debate continues. In our quest to make sense of various players in this ecological drama, we have pulled together some information to help us come to a more informed next step. The United States Department of Food and Agriculture (USDA) and its California counterpart the California Department of Food and Agriculture (CDFA) are responsible for identifying insects they believe will cause serious damage to agriculture and come up with a plan to deal with them. In 2007 the Light Brown Apple Moth was classified as an "Invasive" non-native pest. Agencies began taking steps to keep it from spreading through quarantines and fighting infestation through chemical and non-chemical means.

CDFA has prepared a series of guidelines which can be found on-line at <http://www.cdca.ca.gov/phpps/pdep/lbam/envimpacrpt.html/>. According to the website, eradication (which is the stated goal) is expected to take from 3-5 years, using various methods including: trapping, releasing sterile moths, applying ground-based materials, continued enforcement of quarantines and aerial treatment of "essentially uninhabited areas such as forests and chaparral".

The government is acting with absolute certainty. But

there is controversy about LBAM. Questions like is eradication possible? How "invasive" is this moth? Will a sterile moth program make any impact on a multiple mating insect? How much money is being spent and who is getting that money? Look at the USDA's new "Hungry Pest" advertising campaign. Visit their website at <http://www.hungrypests.com/blog/index.php> to see the controversy brewing. Both Paul and Candi have made comments there.

Oak Hill Farm is currently in the quarantine zone. We are required to allow Sonoma County Agriculture staff access to our growing fields to look for moths or evidence of their presence. To date, no moths have been found. They come every two weeks. No one seems to know what would happen if they did find a moth but chances are it would involve inspections of produce before it left the property. Who pays for that service is undefined. And we don't know what we would be required to do to fight the "infestation" or how many moths is considered an "infestation".

Much more information than the following opinions, is available on-line. We encourage our readers to learn more and discuss these important environmental dilemmas. Open dialogue seems a sensible approach.



LBAM Makes Government Agencies Run Wild

By Yannick Phillips

The Light Brown Apple Moth, or LBAM is a moth native to Australia which migrated to New Zealand more than 150 years ago and to Hawaii about 100 years ago. LBAM is very similar in habits and harmlessness to its native California leaf roller moth relatives -- and has many naturally-occurring predators:

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An Ounce of Prevention...

By Candi Edmondson

Maya Olds is an organic farmer and an advocate for the environment and California organic agriculture.

For six years, Maya lived and worked in Australia as a liaison between grape growers and wineries. Organic was not a prevalent status. Pests were controlled with chemicals. In Australia, LBAM was present, es-

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LBAM and the Bees

By Serge Labesque, Beekeeper

The Light Brown Apple Moth, LBAM for short, arrived in California a few years ago. Last fall, without much warning and in spite of the opposition of many residents of Monterey and Santa Cruz Counties, CDFA sprayed their towns and countryside with "CheckMates OLR-F and LBAM-F", untested products that were labeled as hazardous to

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Run Wild *continued*
wasps, spiders, and
birds are among the

most common.

Several decades ago, LBAM was placed on a list of actionable (meaning dangerous) exotic pests by the United States Department of Food and Agriculture (USDA). Produce from Australia and New Zealand was consequently subjected to inspections. When one was found in Berkeley in 2006 an unfortunate series of bureaucratic and administrative decisions were made by the California Department of Food and Agriculture (CDFA) and the USDA. These decisions culminated in an emergency eradication program which has now been extended statewide.

Because of the LBAM eradication program, Monterey and Santa Cruz counties were subjected to aerial spraying of pesticides over residences, farms, and waterways in the fall of 2007. The material used in this effort has since been declared illegal. The 2007 spraying resulted in hundreds of human illnesses, seabird and pet deaths, bee and songbird disappearances, and the worst red tide in fifty years. CDFA has never wavered from its intention to implement the rest of the program for almost all of California. It includes:

- Aerial spraying of forested and agricultural areas.
- Splatting on telephone poles and trees a mixture of permethrin (an insecticide highly toxic to bees, birds, and cats) and moth pheromone.
- Ground spraying of pesticides on private and public property.
- Application of twist-ties on private and public property.
- Release of millions of laboratory-reared dyed irradiated LBAMs, or SIT (sterile insect technology), into ecosystems where fewer than 100 LBAMs have been detected.

But perhaps worst of all, have been the infliction of nonsensical quarantines. Many growers have been sub-

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LBAM *continued*
pecially in grapes, pears
and apples; it was kept

in check with powerful insecticides.

“No one can predict what the ramifications of the presence of Light Brown Apple Moths will be in Northern California. I feel that is very important to be proactive and to keep non-native species out of California. It is important to work cooperatively with county and state governments to prevent the spread and growth of this insect to prevent more drastic measures such as aerial spraying.”

Maya is in favor of the eradication efforts put forth by USDA and CDFA as long as they do not use the aerial spray option. Through the less invasive tactics, she believes it is possible to keep LBAM’s infestation low or to eliminate it altogether. Conventional farmers, when faced with crop losses, will begin spraying for LBAM. And the insecticides are nasty, bad for the environment and the workers. Organic farmers will likely resort to BT (*Bacillus thuringiensis*) an accepted “organic” control. Unfortunately, BT is a broad spectrum control, killing all caterpillars that eat it.

When asked about seeing a reversal in a pest’s population, Maya sites the work Monica Cooper is doing in Napa County controlling the vine mealy bug with pheromones. Though a reversal has not occurred, the work is promising.

Right now, most of the 800 acres Maya works are in the LBAM quarantine zone. The quarantined acres are subject to additional paperwork but harvest and sale of the grapes continue. All workers must adhere to standards to keep the pest from spreading, including monitoring and proper disposal of waste plant material. “Prevention, particularly for organic growers is extremely important and inaction has the potential to take a toll on agriculture and the environment in the future.”

Bees *continued*



human health. This resulted in over six hundred people suffering ill effects, and had no measurable impact on the elusive LBAM population.

Now, two years of expensive studies have resulted in a 1,500 page report, and despite the absence of noticeable crop damage due to LBAM, CDFA wants to pursue its plan to “eradicate the insect from the state of California by the year 2015”.

For sure, no one will be spared by this diligent eradication plan that is expected to go on for five or more years. People, fish, wildlife, insects, beneficial or not, will all pay with their health or life. Indeed, pesticides do not know a beneficial organism from a “bad” one, if such a creature even exists.

The financial cost of the program to all of us, taxpayers, is huge and expected to run into several hundred million dollars. But this pales in comparison to the immeasurable environmental price that will also be paid.

Of course a few will benefit. These are the manufacturers and commercial applicators of the materials that will be sprayed initially over thirteen counties, including Sonoma County, and ultimately over most of California. CDFA will also benefit, because this program “justifies” its very existence and the full staffing of the Department in times of dire economic restrictions. And let’s not forget that the conventional farmers are asking CDFA to implement the program as quickly as possible, as these treatments will be done at essentially no cost to them. Everyone’s health is put at risk for the economic profits of a few.

So a question comes to mind: Who is going to do the greater harm, LBAM or CDFA? In spite of the deceptive and alarmist TV ad campaign launched by the USDA, please show your opposition to the eradication program by writing to:

Jim Rains, Staff Environmental Scientist
California Department of Food and

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Run Wild *continued*
 jected to onerous, destructive, and capricious inspections; operations have been shut down for weeks at a time if a single suspected LBAM larva is found; entire fields and harvests have been in some cases plowed under by order of CDFA; some organic farmers have been ordered to douse entire fields with pesticides.

The program, not the moth, harms human and animal health and is particularly injurious to the livelihood and well being of small, family, and organic farms and nurseries.

LBAM has never caused any damage to crops or forests in Hawaii. It has been in residence in the UK since the 1930s -- and again, has caused no damage there. LBAM is not quarantined by the European Union. Reputable scientists in New Zealand and

those here in California, who not paid by USDA/CDFA, say the moth is not a threat and at its very worst has small potential to be a crop quality issue. There has been no documented damage by LBAM in the state of California. What's more, LBAM is so widespread throughout California it cannot be eradicated.

The first year of the LBAM eradication program spent almost \$100 million of taxpayer dollars. In 2009, the program will spend at least \$25 million. The program is scheduled to go on for years and years for a moth that does not endanger cultivated or wild plants.

For more information contact Yannick Phillips, founder, MACH (Mothers Advocating for Children's Health) - Sonoma, yphillips@comcast.net, 707-933-0312

Bees *continued*
 Agriculture
 1220 N Street
 Sacramento, CA 95814



Let's avoid the recurrence of similar problems. We can reduce the risk of introducing foreign pests into the country and our exposure to pesticides by consuming fruits and vegetables that are produced locally, according to methods that nurture biodiversity and that respect life and natural resources.



October in the Fields

Two weeks ago, Sept.26 & 27, we gave farm tours as part of the Sonoma Farm Trails weekend promotion of its' members. These tours are so valuable for me because it gives me a chance to reflect about many things happening at the farm. I have a chance to see our work with new eyes, from a different perspective. Sometimes the participants are very knowledgeable about why we do things and sometimes not so much. Some questions are straightforward enough to answer but other times it really causes me to step back and consider the "what and why" of what we are doing. It turns out that often some of the most penetrating questions are the curveballs from those not so familiar with the challenges of farming. One of the more difficult questions for me was asked by a young girl, "Where are the animals?" I had to reply simply that we don't have farm animals here.

(Anne keeps chickens for her own needs but that is the extent of it). Then I think to myself, hmmm that would be smart of course but can we integrate yet another crop? One



Farm tours stimulate new questions



Sheep are used for field fertility, wool and meat at Full Belly Farm in Guinda

as unfamiliar to me as animals?

Well, this past weekend Candi and I went to the annual "Hoes Down" festival in Capay Valley at Full Belly Farm. It's an annual event that anyone looking for exposure to exemplary farming and community should attend. When I leave their farm I'm always inspired to try to do more. They grow at least as many vegetable, flower and fruit varieties as we do, but with the addition of nuts, sheep and chickens as well. I'm humbled by their hard work and commitment. On top of it all they make this annual party for about 2000 people to visit their farm! The bar keeps rising! My hat's off to Full Belly farm and EFA (Ecological Farming Association). Together they make this annual event where people can experience where their food comes from and what a working farm looks like and feels like. Meanwhile I'll be pondering animals on the farm...

Paul Wirtz

The Oak Hill Farm bees produced a respectable amount of delicious summer honey this year. But to be more accurate, honey bees do not really produce honey. The forager bees gather nectar, a sweet substance that is produced by plants that are in bloom, and they bring it back to their hives. There the hive bees process the nectar by evaporating excess water and by adding enzymes that break the nectar's complex sugars down into easily digestible simple sugars, mainly fructose and glucose. The fragrance that emanates from the hives that are dehydrating nectar is simply wonderful, especially on warm summer nights. When the honey is finally ripe, the bees seal it under a layer of pure beeswax.

The Oak Hill Farm summer bloom was wonderful this year, and the forager bees did not let the bounty go to waste. The result is the tasty amber Oak Hill Farm honey we can now enjoy. The honey that beekeepers harvest is what is called "surplus honey". It is in excess of what the bees need for their safe sustenance during the upcoming winter months.


Right now, these remarkable insects are busily working at completing the preparations of their hives for winter. They are raising the winter bees, a generation of very special bees that will carry the hives through winter and that will in turn raise next spring's bees. They are also consolidating their food supply, honey and pollen, which is called "bee bread", around their brood nests.

At this season, the beekeeper's tasks amount to ensuring that the bees have everything they'll need, and that the

hives are in good condition to face the rain, the wind and the cold weather that are ahead, not to mention the announced El Niño winter and spring. On August 19th, more than one hundred beekeepers, farmers and growers descended onto Oak Hill Farm from many of the western states and provinces of Canada. They were attending the 2009 Conference of the Western Apicultural Society. They were greeted at the White Barn by Anne Teller, who outlined the story and philosophy behind Oak Hill Farm. To say that they were wonderfully surprised by what they heard and later saw of the farm is an understatement.

Following Anne's presentation, a ten-minute stroll over the hill and by the orchard provided magnificent views over the crops and the mountain. This pleasurable walk took the visitors to the apiary and to the Red Barn. Everyone was delighted. The Oak Hill Farm bees were flying in large numbers, actively foraging on the beautiful expanse of buckwheat that was in bloom on the south slope of the hill. The beekeepers were given an overview of the beekeeping methods that are used on the farm.

At a time when large numbers of honey bee colonies are suffering from multiple ailments, including malnutrition, loss of habitat and exposure to pesticides, this visit was an outstanding demonstration of what can be done for our pollinators, our environment and ultimately for all of us, when the land is cultivated skillfully and with great loving care.

Questions and flattering comments about Oak Hill abounded from the visitors through the end of the conference, making me feel like one lucky beekeeper. 

BARN BUZZ

What's happenin'?

Q: "Is the growing season coming to a close?" (in a worried voice).

A: "Not at all!"

"...to everything (turn, turn, turn), there is a season..." Each season holds its own bounty. So good-bye raspberries, hello apples and pears! So, good-bye corn, but hello pumpkins and broccoli!

Tomatoes, depending on surprises from Mother Nature, can last through November.

The flowers that have been grown and cut all year are ready to be turned into spectacular autumn wreaths.

Yes, to everything, there is a season, as visitors to the farm have learned over the years. So enjoy the anticipation for sweet peas, tender greens, and tiny carrots in the spring; Tomatoes, sunflowers and padron peppers in the summer; Pumpkins, squash and root crops in the fall; Holiday delights for the winter.

Meanwhile, don't forget to appreciate what's here right now — there's plenty. See you in The Red Barn.

Gael and staff

Blue Barn Box Dinner

Monday night, September 21st the intimate Oak Hill CSA (Community Supported Agriculture) in San Francisco, held together by Teresa Piro, shared a delicious evening. "Box" Dinner used Oak Hill Farm produce to create a seasonal meal for its 23 members, many of whom don't know each other. They pick up boxes of the farm's food once or twice a month at the Blue Barn Gourmet, 2105 Chestnut Street at Steiner. And often members' paths don't cross. Oak Hill Farm was represented by Anne, Paul and me.

It was such a treat to spend time with such ardent supporters of good food and our farm, even though many have not gotten to the farm. Conversation moved from cooking with leeks, Julie and Julia, then on to Food, Inc. and childhood food memories. Thank you, Teresa. Your enthusiasm is infectious. *Candi*

FRUIT OF THE MONTH

Apples

by Anne Teller

It is not unusual to find old apple trees on old farms. Oak Hill is no different! There are about six ancient trees here that had been somewhat neglected; but nevertheless continued to grow and produce fruit. Now they are pampered by perfect pruning, debridging of old bark, thinning, harvesting every last apple, feeding and watering, and finally wrapping the trunks with corrugated paper to capture codling moth pupa. Each orchard has at least one large bat house to encourage summer residence of those night flyers that hopefully feast on destructive codling moths. Cover crops of oats, peas and beans cover the orchard during the rainy season. In fact, all fruit trees are treated the same way, whether ancient, simply “old” or young.

The goal for any small orchardist, other than finding the most perfect apple for eating or cooking, is to spread the ripening time from early summer to late fall. Mr. Wedekind helped in the selection of appropriate varieties for Oak Hill. His picks included the Jonagold and Gala for all-purpose apples. Other apples now grown on the farm, listed in their ripening order include: Gravenstein and red Gravenstein, Astracan, Gala, Elstar, (a New Zealand variety, for fresh eating), Jonagold, Akane, Cox Orange Pippin, Liberty, Baldwin, Fuji, Idared, Mutsu, Newton Pippin, Red and Golden Delicious, Roman Beauty, Spitzenburg, Winesap, Arkansas Black and Granny Smith. Our picks for sauce and pies are Gravenstein and Elstar. But then Akane is awfully good, as is Yellow Delicious and you can't beat Arkansas Black on a chilly October night.

NUTRITION SCIENCE CORNER BY KEN NEIHOFF

Apples are a major source of flavonoids, and flavonoid-rich foods may help protect against chronic diseases by antioxidant mechanisms. I know I keep talking about antioxidant protection from free radical molecules but there is a good reason: free radicals are a major cause of degenerative diseases and aging, and fruits and vegetables are a major source of the antioxidants that can stop free radicals from damaging your



cells. When you look at the food you eat from a health perspective, you look at how the food contributes to your energy needs (carbohydrate, protein and fat) and the food's micro-nutrients (vitamin, mineral and phytonutrient content). An average apple has about 17 to 25 grams of carbohydrate mostly in the form of simple sugars (fructose) and 3 to 5

grams of fiber. If you are counting your carbohydrates, remember to subtract the fiber because it doesn't contribute to energy or blood sugar levels. Apples are a good source of vitamin C and fiber, and have a small mix of vitamins and minerals, nothing to write home about. But, their phytonutrient, radical-halting activities can be 10-30 times better than those of the antioxidant vitamins C and E.

There is more to know about apples: their soluble fiber content can help lower your “bad” LDL cholesterol level, their flavonoid content is credited with anti-cancer effects. Their quercetin content may sharpen memory and learning and protect against oxidative damage that contributes to Alzheimer's disease. Apples are good for you as long as they're kept fresh and organically grown. Most of the micronutrients in apples are in the skin, so avoid apples that have been grown with pesticides or treated with fungicides and wax. The nonprofit Environmental Working Group ranks apples in the top 12 fruits and vegetables contaminated by pesticides. There are no pesticides on Oak Hill Farm's apples, so store them in the refrigerator and enjoy.

by Ken Neihoff

STAFF PROFILES



Jean Thompson

You can hear Jean Thompson coming. Her girlish bustle is always preceded by the light jingle of her silver bracelets. Jean has a way with style, inside and out. Every week Jean transforms the Red Barn Store from a “drafty barn” to “Authentic Dramatic Country”. Huge flower displays are somehow hoisted into position each week. Flowers and greens, branches and fruit, become both background and centerpiece to the sales floor.

Lisa Murray

My name is Lisa Murray. I have been working for Oak Hill Farm this summer during the market season. I work at Sonoma’s Farmers’ Market on Tuesday nights. I am a Farmer’s Market ‘marketeer’. My duties include sharing my enthusiasm for Oak Hill’s vegetables, fruit and gorgeous flowers, and selling that produce with a smile.

Working for Oak Hill Farm this summer has been an absolute delight. I love interacting with people and sharing my passion for food grown well by people who care. I believe in the slow food movement and a diet abundant in lots of fruits and vegetables. I am eternally grateful for our kind environment and rich soil that enable us to eat fresh and delicious food.

My favorite thing from the Farm right now is MELON! I have been sweet on the little French cantaloupe, the charentais, for weeks but now I find myself falling in love with the Crenshaw. The smell of melon is intoxicating. I am

No surprise, this isn’t Jean’s first job with flowers. Before moving to Sonoma in 1997, Jean was the co-owner of Fioridella, a prominent San Francisco flower shop which regularly purchased flowers from Oak Hill Farm. Jean started working for Oak Hill in 1998.

Once the store is set up, Jean makes bouquets using the fabulous materials for sale in the store. Combining color and texture, Jean creates unique and generous bouquets for sale in the Red Barn. And, she helps customers decide on flowers for their special parties or intimate dinners. Making bouquets and centerpieces for weddings and other large parties has been taking more and more of Jean’s time these days.

If you have something that needs Jean’s dramatic flower sense, find her Wednesdays and Fridays in the Red Barn Store. She will be happy to help you out.

AVAILABLE IN OCTOBER

SALAD GREENS Arugula, Frisse, Lettuces, Radicchio and Salad Mix

HERBS Basil, Chives, Marjoram, Parsley, Rosemary, Sage, Tarragon and Thyme

VEGETABLES Chioggia, red and gold Beets, Broccoli, Burdock, Cabbages, Carrots, Cauliflower, Celery, Chard, Corn, Cucumbers, Eggplant, Garlic, Green Beans, Kale, Kohlrabi, Leeks, Melons, Onions, Parsnips Peppers, Radishes, Shallots, Tomatoes, Turnips, Summer and Winter squash

FRUIT Apples, figs, pears and quince

FLOWERS Amaranth, Bells Calendula, Calliopsis, Coriopsis, Cosmos, Dahlias, Dill, Gladiolas, Gomphrena, Marigolds, Millets, Safflower, Sunflowers, Zinnias

Lisa examines an Arenian cucumber.



also very fond of the raspberries and Queen Anne’s Lace, which remind me of Wisconsin summers. In the vegetable category, I love the lacinato kale, and of course, the carrots. Paul’s carrots are the best in the whole world.

On any given day, I can be found in Sonoma Valley teaching yoga, running in the Springs, tending to my own micro farm, painting, volunteering at various events and hopefully, treading lightly. Namaste!

This newsletter is brought to you courtesy of Oak Hill Farm staff:

Candi Edmondson, coordinator
Ann Teller, advisor and contributors: Paul Wirtz, and Gael Del Mar

You can find Oak Hill Farm produce on the menu at the following local restaurants:
Artisan Bakery ♦ Cafe LaHaye ♦ Depot Hotel ♦ El Dorado Kitchen ♦ Epicurean Connection ♦ Estate in Sonoma ♦ fig cafe ♦ girl and the fig ♦ Grindstone Bakery ♦ Harvest Moon Cafe ♦ Kenwood Restaurant ♦ La Salette ♦ The Lodge at Sonoma ♦ Olive and Vine ♦ Ramekins ♦ Saffron ♦ Westerbeke Ranch ♦ Wild Thyme Catering
And in San Francisco: Blue Barn Gourmet ♦ Mamacita ♦ The Topsy Pig ♦ Umami