SUMMER • 2011

LODI WINEGRAPE COMMISSION
IPM RESEARCH NEWSLETTER

LWC'S NEW SUSTAINABLE VITICULTURE DIRECTOR

- Walt Chavoor -

It is with much personal satisfaction and considerable respect for the accomplishments of the Lodi Winegrape Commission and the Sustainable Winegrowing Program, that I introduce myself as the new Sustainable Viticulture Director. Over the last 15 years the program has gone from being a vision held by a group of committed, hard working, enthusiastic people to becoming what is arguably the preeminent sustainable viticulture program in a very competitive field. Cliff Ohmart's account of the launching of the Lodi Winegrower's Workbook in 2000 includes the story of the grower who, new workbook in hand, already wanted to know "What are we going to do next?"

Having spent over 35 years working on the production side of the vineyard industry, with first hand experience in many of California's wine producing areas, one of my first impressions regarding the distinctive nature of the Lodi District among the winegrowing communities is the complexion of its membership base, which is to a large extent comprised of owner operators who are actively engaged in day to day farming. The inherent strength of this unique attribute cannot be underestimated.

The farming community is by nature a collection of very independent-minded individuals. It does not take much of a stretch of the imagination to conclude that vineyard management by committee might not be the most efficient operational format given the immediacy of the constraints Mother Nature provides along the way during the annual cycle of vineyard operations. It has long been said that "time waits for no man." As every grape grower knows, neither does powdery mildew. No one knows a grower's field better than the grower himself, and in most cases getting the job done is not dependent on getting permission or a second opinion. On the other hand, if we step back a bit for perspective we can see winegrowing in a larger context. In the natural world the term "biodiversity" describes an environment made up of a wide variety of different kinds of interdependent organisms. This environment is considered to have advantages with regard to the health and sustainability of the entire community. Similarly a grower community made up of diverse talents, outlooks, and strong distinctive personalities has advantages over a more homogeneous grouping.

A recurring theme that has come up in my conversations with local growers is the widely held belief in the importance of hard work. It is a way of life for those who are directly involved in agriculture. One of the distinctions of an agrarian environment composed of owner operators is every grower's fundamental and concrete understanding of what it means to work, in the complete sense of the word, physically as well as mentally. The farmer and essayist Wendell Berry, who speaks eloquently to the topic of sustainable agriculture, suggests in his observations on our transition from being an agrarian to an urban society that regretfully, "we have made it our overriding ambition to escape work." The orientation toward a traditional ethic brings a unique vibrancy to any effort made by a group of individualistic hard working farmers, and it brings opportunities for achievement that might be less likely to occur in another setting. Perhaps the

success of the Lodi Rules for Sustainable Winegrowing is not all that surprising.

"What's next?" As the program continues to evolve, a new edition of the Lodi Rules is being prepared which will be a refinement of the original effort. Greater recognition of the value of the program is attracting more grower participation, and increased interest here at home will produce benefits both locally and beyond. The message still needs to be delivered to a wider consumer and trade audience. The potential rewards of successfully meeting that challenge are an increase in the worth of local products and a greater share of the marketplace, which are to the benefit of everyone involved. Having started my career many years ago under the Central Valley sun with a pair of pruning shears and a shovel and having been around the block a few times, my assessment is that the future looks promising considering all that the Lodi District has to offer. I am certainly glad to be here and look forward to meeting you soon in person.

GROWER PROFILE - MATT SHINN

A first meeting with Matt Shinn leaves the impression that he is a "glass half full" type of person, except for the "half" part. After only a few minutes of conversation it becomes apparent that Matt's outlook on anything he encounters in life always falls on the positive side with seemingly little interest in dwelling on the negative. As he himself puts it, "Focus on all the good you have, not what you don't have." Perhaps this is why his successes seem so natural.

Like many who grew up in an agricultural setting Matt was involved in ranch activities as far back as he can remember. Riding with his dad at three or four years old evokes a smile. The recollection of more serious days spent shoveling weeds and installing emitters in drip line not too many years later establish a pattern of increasing responsibility which has become a part of his character. An alumnus of Lodi High School where he was involved in both the music and athletic programs, with a little encouragement provided by his father Steve, Matt enrolled in the Ag Business program at CSU, Fresno, graduating in 2001. Notwithstanding the successful completion of his studies, he does not appraise himself as much of an academic superstar, a description reserved for his wife Evonne, at whose mention his face brightens and becomes even more animated. Clearly he credits some of his accomplishments to her influence. Matt and Evonne met during their last week at Lodi High School, and they both attended Fresno State at the same time where Evonne studied to be a teacher. They were married in 2000.

While pursuing his degree at Fresno State an opportunity to work as shop manager for an international manufacturer of spray equipment led to two and a half years of employment and the acquisition of both business and mechanical skills, which would later be put to good use. Since Matt didn't envision his future as someone else's employee and there were already other ideas incubating, he felt that the prospect of moving back to Lodi was a better alternative than staying in Fresno. Seeing a need for greater capacity to pick grapes mechanically during the peak of the season, Matt saw the opportunity to start a custom harvest business. But first, he needed to find a way to acquire a grape harvester. Undeterred when turned down by a lender who didn't share his gift for only seeing the positive side of things, Matt continued to pursue his goal until finally obtaining the financing that enabled him to secure a machine and subsequently to begin a custom farming business. Along with the development of the still growing custom side of the business, his participation in the family farm, which involves both winegrapes and cherries, has expanded as well.

Much of the remainder of that "full glass" description of the Shinn household is devoted to family activities and daughters Lauren and Emma. Matt's interests include skiing, snowboarding, water skiing, kayaking, and most anything that allows him to spend time with his family.

Being a member of the grape growing community for eleven years has led to other areas of exploration and, much to the good fortune of all concerned, Matt's attention was recently attracted to the Lodi Winegrape Commission. Questioning what it is that the commission actually does, Matt's affirmative natural response was that the best way to find out was to jump in and see first hand. He is the newest member of the Education Committee, and while it is still too early to tell what he will discover it seems likely that his constructive attitude will foreshadow events worth following.

LWC IN THE VINEYARD

- PAUL VERDEGAAL

Rainfall, Cool Temperatures & Wind
Irrigation
Powdery Mildew
Vertebrate Pests
Ongoing "New" Pests

The 2011 season started off with a second year of above average rainfall. After three previously dry winters, last year was helpful, but didn't quite fill depleted soil profiles. This spring, the 2011 situation provides vineyards with a fully wetted soil profile. As of May 1 the North County is at 24.8 inches of rainfall, compared to 18.9 inches of total rainfall last year. The South County is ending the 2011 rainfall season exactly as last year at 14.1 total inches, just slightly ahead of long term average.

Much of the rain came early during October through December, with a dry spell mid –winter and a large amount in late February and through March, just before and during budbreak. Most rain events were significant and effective. Effective rainfall needs to be greater than 0.25 inches for one event and greater than the previous week's ET, which is usually very low during winter time. Because of the very dry April and low relative humidity, early season problems of Phomopsis Cane and Leaf Spot or Botrytis Shoot Blight have been non-existent.

So far the 2011 season has been windy as was last year; frequent occurrences of wind with gusts above 20 mph. There have been some damaged shoots, but not as much as might be expected. Day time temperatures have been warmer than in 2010, so that Growing Degree Days (GDD) are well ahead of last year, but well below average compared to the long term.

There was frost this year, as night time lows have often been very cold. The worst damage both locally and in the Central Coast occurred on April 8th. Damage was not as severe as in 2008 nor as widespread. Damage in many cases was limited to shoot tips and leaves, but in some locations crop loss did occur. This year the most damage seemed to occur between Davis and DeVries Rd north of Highway 12, towards I-5 and into the Delta. Some locations north of the Mokelumne between Lower Sacramento Rd and Highway 99 also experienced damage. In addition, Manteca seemed to suffer frost damage. The most severe damage seemed to have occurred in the Delta and even more so all along the Central Coast from Monterey to Santa Maria. Another possible frost event seemed to affect the northeast and eastern part of the District on April 26th and even possibly on April 29th; when some weather stations recorded near freezing temperatures.

The good rainfall totals will help delay the need for significant irrigation and more so than last year as deep soil moisture is better this year. But watch the soil moisture either with soil moisture probes or a quick check by auger or even shovel in sandy sites, traditionally dry areas of your vineyard(s), and especially if cover crops are present. Vine growth should respond well to moderate growing conditions as they did in the wet years of 2005 and 2006. It appears crop loads are below average, but may be good in some varieties and locations in younger vines. Many older vineyards of red varieties, especially Zinfandel, look light.

Unless cover crop is present vines have only been using about 0.25 inches of water (or very "seat-of-the-pants", about 5 hours worth of irrigation time) per week. During that same period orchards have been using about 0.75 inches of water. That can double soon and increase further whenever the weather does warm up. That considered, it's good to stay ahead of using deep soil moisture, and irrigate so as to maintain deep moisture available for mid to late summer and into harvest in the fall.

Powdery mildew pressure has been moderate until the last week. Disease development shouldn't be severe at this point, but you may need to be on an aggressive schedule of protection if it remains mild from here on out.

When it comes to Powdery mildew keeping costs down and avoiding resistance development probably requires a program that includes sulfur at some point in the season. Wettable sulfur after budbreak can also be a very effective choice for doubling up on an early start to powdery mildew control. With sulfur cost escalating, some of the newer

LODI RAINFALL
2005 - 2011

YEAR	TOTAL INCHES	% AVG.	OCT NOV DEC	JAN	FEB	MAR	APR	MAY
2005	24.7	131	10.4	3.2	3.3	3.5	1.4	1.3
2006	23.7	126	7.1	5.4	1.1	5.2	3.8	0.8
2007	12.1	64	4.6	0.3	4.3	0.6	2.3	T
2008	13.6	72	4.5	7.3	1.8	0.1	0	0
2009	15.1	80	4.0	1.9	5.3	1.9	0.7	1.3
2010	19.2	102	6.1	4.5	3.6	1.8	2.9	0.3
2011	24.8	125	12.1	1.4	4.1	5.8	0.2	1.2
AVG.	18.9		7.0	3.4	3.4	2.7	1.6	0.8

materials are more cost competitive, although ground coverage is still much slower than with dusting sulfur. Whatever the material of choice ends up being, a good powdery mildew program includes: some sulfur, rotation of materials between years, and complete coverage, - each important.

So far it seems gophers and voles may have run their recent cycle of two bad years. They are active at this time and probably need some attention, even with the benefit of owls, hawks and snakes (or cats). Owl boxes and raptor perches help, but control is needed before they reproduce and litters begin to disperse. See the UCIPM guidelines for some ideas:
Voles
http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7439.html
Gophers
http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7433.html

Continue to be on lookout for some not so new problems. Vine Mealybug (VMB)continues to spread. There are options for control, and Movento (spirotetramat) is back on registration as a possible choice of several materials. VMB is now becoming active enough to begin looking. Vigilance is needed, so look in areas of bird roosting and watch for high traffic spots of ants that lead into vines.

Light Brown Apple Moth (LBAM) is spreading in the Manteca and Tracy areas. It is controllable as is the more traditional pest of Omnivorous Leaf Roller OLR. LBAM does unfortunately require quarantine and more paperwork.

Trapping is ongoing for European Grapevine Moth (EGVM) Lobesia botrana in the quarantine area for a large portion of the Lodi District. No finds have occurred and that is good news. Populations in other quarantine areas have declined or stabilized, such as Napa, Sonoma, Yolo, Mendocino and Fresno counties. It was first identified in Napa last September. It appears to be controllable, but is much more devastating than OLR or LBAM, as its larva feed directly in flower clusters and developing fruit all year. And egg laying by the female is much more dispersed, so it will spread faster, within and between vineyards. See the UCIPM site at
http://www.ipm.ucdavis.edu/EXOTIC/eurograpevinemoth.html

If you have any questions give me a call (for those of you still with the old office number, my new number is 953-6119). Or check with Walt Chavoor at the Lodi Winegrape Commission office. By the way welcome to Walt as the new Viticulture Research/Lodi Rules Coordinator for LWC. Stop by and introduce yourself or give him a call, if you have ongoing questions about either program.

There are big challenges for the 2011 season, but wine sales are up; consumers are looking for value and Lodi remains a good place to grow quality grapes for quality wine in a good, but competitive market.

WHAT DO NEW CHANGES IN ALUMINUM PHOSPHIDE LABELS MEAN FOR BURROWING MAMMAL CONTROL?

BY ROGER A. BALDWIN, UC IPM WILDLIFE PEST MANAGEMENT ADVISOR

The California ground squirrel (Spermophilus beecheyi) and pocket gopher (Thomomys spp.) are widely considered to be the two most damaging wildlife pests in California agriculture. Numerous techniques are available for controlling ground squirrels and gophers including trapping, anticoagulant baits, acute toxicant baits, and burrow fumigants. Trapping can be an effective method to remove small to medium size populations of gophers and ground squirrels but often becomes too time consuming for large acreage. Both anticoagulant (e.g., diphacinone and chlorophacinone) and acute toxicant baits (e.g., zinc phosphide) can be quite effective at controlling ground squirrels when used appropriately. These rodenticides are less consistent but can still be effective when baiting for pocket gophers. Baiting is typically considered the cheapest and least time-consuming method for controlling both gophers and ground squirrels. However, there are potential concerns for non-target poisonings when using rodenticides which can limit their applicability in some situations.

Burrow fumigants, such as gas cartridges and aluminum phosphide, do not typically pose as great of a concern for non-target exposure as baits, and usually involve shorter application times than trapping. Aluminum phosphide is particularly effective at controlling gophers and ground squirrels. Recent studies on ground squirrels and gophers indicated excellent control for both species (reduction in ground squirrel population = 97–100%; reduction in gopher population = 100%). Aluminum phosphide is a restricted use material; specific guidelines must be adhered to when using this material. Additionally, fumigation is generally only effective when soil is moist. Therefore, fumigation is restricted to late winter and spring or following irrigation.

Nonetheless, aluminum phosphide fumigation is a very valuable part of an IPM program for controlling gophers and ground squirrels; its continued availability to growers is needed to maximize control efforts in many situations.

Unfortunately, recent changes in aluminum phosphide labels have been implemented due to the gross misuse of this product that led to the death of two young girls in Utah. These changes include the following:

1. Use is strictly prohibited around all residential areas, including single and multi-family residential properties, nursing homes, schools (except athletic fields, where use may continue), day care facilities, and hospitals.

2. The products must only be used outdoors for the control of burrowing pests, and are for the use on agricultural areas, orchards, non-crop areas (such as pasture and rangeland), golf courses, athletic fields, parks, and other non-residential institutional or industrial sites.

3. Products must not be applied in a burrow system that is within 100 feet of a building that is or may be occupied by people or domestic animals. This buffer zone for treatment around non-residential buildings that could be occupied by people or animals has been increased from 15 to 100 feet.

4. When this product is used in athletic fields or parks, the applicator must post a sign at entrances to the treatment site containing the signal word DANGER/PELIGRO, skull and crossbones, the words: DO NOT ENTER/NO ENTRE, FIELD NOT FOR USE, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

5. When this product is used out of doors in a site frequented by people, other than an athletic field or park (such as agricultural fields), the applicator shall post a sign at the application site containing the signal word DANGER/PELIGRO, skull and crossbones, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.

Because of these changes, I have developed a questionnaire designed to develop accurate facts on various methods, including fumigation with aluminum phosphide, for controlling burrowing mammals in California. The information will be provided to registrants, the U.S. EPA, and others to help develop use policies, labels, etc. My primary objectives are to:

1. Identify the level of use of aluminum phosphide for various burrowing mammals in agricultural areas prior to the new aluminum phosphide label restrictions.

2. Identify how new aluminum phosphide label restrictions will alter use of a variety of control methods.

3. Identify the potential impact of the new aluminum phosphide label restrictions on burrowing mammal populations.

4. See if there is support to further increase safety for residents and other public bystanders by requiring a new Certified Applicator Category for use of aluminum phosphide fumigants for burrowing pest control IF such a category would ease restrictions set forth in the most recent aluminum phosphide labels.

The data collected should provide a much clearer picture of use patterns and importance of several methods, including aluminum phosphide, for controlling agricultural populations of burrowing pests in California. The survey can be accessed at the following web address:
http://ucanr.org/sites/AluminumPhosphideSurvey/

Two surveys are found at this website; one is for agricultural users, the other is for rodent control professionals who control burrowing mammals in urban/residential areas. Be sure you complete the appropriate survey. Once completed, the survey can either be: 1) saved and e-mailed to me, or 2) mailed to me via USPS. My e-mail address, mailing address, and phone number are provided at the end of this article. If you do not have internet access, give me a call or send a letter and I will mail a copy of the survey to you.

I must emphasize the importance of your participation in this survey if you use aluminum phosphide for burrowing mammal control. Data needs to be collected and subsequent results provided to the pertinent regulatory agencies to show the importance of aluminum phosphide for burrowing mammal control. Otherwise, there is a real possibility that we may completely lose aluminum phosphide for burrowing mammal control.

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UPCOMING EVENTS:

June 28, 2011, 9:00 – 10:00 AM
Grower Breakfast Meeting, Burgundy Hall, Lodi Grape Festival
Bats, Vineyards, and IPM: presented by Dave Johnston, Ph.D. Wildlife Biologist

July 14, 2011, 9:00 – 12:00 noon
Disease Symposium, Burgundy Hall, Lodi Grape Festival
Managing Eutypa Dieback and Other Grapevine Canker Diseases
Dr. Doug Gubler, Extension Pathologist, Dept. of Plant Pathology, U.C. Davis
Dr. Jim Wolpert, Viticulture Extension Specialist, U.C. Dept. of Viticulture and Enology Grower Panel.

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RETURN SERVICE REQUESTED