



“LODI RULES” – AN EVOLUTION

We have just celebrated the twentieth anniversary of the creation of the Lodi Winegrape Commission. In its second year the commission created an integrated pest management program which was responsible for the 2000 publication of the Lodi Winegrower’s Workbook. In 2005 the LWC established California’s first program of sustainable winegrowing standards known as The Lodi Rules for Sustainable Winegrowing. Since its inception the Lodi Rules program has grown from 6 participants farming less than 1,500 acres to well over 70 growers covering over 24,000 acres. While this quantifiable success is gratifying, it should be remembered that the nature of the program and the benefits derived from it are diverse and continue to evolve.

The amount of effort that went into creating seventy-five measurable farming standards, peer reviewed by scientists and academics, and third party certified, should not be underestimated. Widespread recognition of the value of that work is indicated by a couple of recent occurrences which bear recounting.

Earlier this season a visitor from France was on his way to Brazil via California to start a vineyard sustainability program. He wanted to meet with representatives of the LWC because he found in his Internet searches that that topic of vineyard sustainability was dominated by references to the Lodi Rules. Another validation came in a request from the Virginia Cooperative Extension which is planning a technical meeting for their growers. Their interest is in having speakers on sustainable winegrowing from “Oregon, Lodi, and New York.” The implication that Lodi has the stature of entire states and supersedes that of California should be well noted.

The cultivation of wine grapes has become increasingly complex over the years. There have been refinements in tools and techniques which have included everything from rootstocks and clones to irrigation technology to advances in vineyard mechanization. We have gone from almost absolute reliance on

a very short list of fungicides and insecticides to having an extensive collection of alternatives. Similarly, the list of previously unknown pests and diseases continues to grow. As the focus on wine quality has intensified we are challenged to produce even better quality grapes. Competition from other growing districts encourages us to redouble our efforts or fall behind.

The Lodi Sustainable Winegrowing Program has become an integral part of our grape-growing culture. To say that it has made at least a small contribution to the skills of vineyardists worldwide in their striving toward sustainability and conservation would not be an understatement.

Last year, in recognition of the continuing evolution of the Rules program, the Winegrape Commission established the Lodi Rules Committee as a standing committee of the commission. The Rules Committee meets regularly at the commission offices to re-examine and refine the standards. It is a work in progress. The Rules program has a solid foundation, and it has an aim. It is the result of feedback from participants whose practical application of the program has amplified our collective experience. It benefits from new knowledge gained by the research community which also has Winegrape Commission support. It is a focal point for questions posed by conscientious growers who are engaged in improving their viticultural skills.

As we conclude the 2011 season it is important to remember the contribution Lodi Rules growers make to their respective wineries, to the viticultural community, and to all those who share the natural resources which are affected by the activities of our profession. Current affiliates of the program, prospective participants or those simply wishing more information about it are encouraged to contact Walt Chavoor at the Lodi Winegrape Commission, (209) 367-4727, to become more active in the ongoing conversation regarding sustainable viticulture.



LODI DELEGATION VISITS VINEYARD & UNIVERSITY

On August 9th a dozen members of the Lodi Winegrape Commission Research and Education Committee participated in a field trip to the Fresno/Madera area to explore recent advances in vineyard management and research which might benefit Lodi District growers.

The first stop was a 1500 acre property near Madera managed by Ernie Dosio and Pacific Agri Lands, Inc. This vineyard is an example of the leading edge of efforts toward greater reliance on mechanization with a focus on maintaining or improving winegrape quality. The chief feature of this vineyard was a tall training system which utilizes a single fruit wire at a height of from 66” to 72.” A number of varieties, which included Syrah, Rubired, Ruby Cabernet, and French Colombard, seemed to perform equally well. It was suggested that this trellis style might not be appropriate for low vigor varieties such as Pinot Noir. The key to the system according to Ernie is that the vines should be mechanically pruned as closely as the machinery would allow. Realistically this seemed to be approximately a eight inch linear box.

With a row spacing of ten feet and either seven and a half or eight feet between vines the canopy appeared to be balanced, and the clusters were well spaced in spite of the fact that yields might be anywhere from 14 to 25 tons depending on variety and vintage year. Improved cluster distribution facilitates powdery mildew control in a district which is prone to extremely high mildew pressure, and it discourages the development of botrytis bunch rot. It is felt that Eutypa infections may be less common under this management system. The row orientation was north/south. Canopy skirts were trimmed during the growing season to allow for tractor access, and the vines were closely hedged just prior to harvest to the advantage of the mechanical harvesters.

As might be expected, increased production is accompanied by an

increase in inputs such as fertilizer and irrigation. The costs of these additional inputs were more than offset by revenues from greater yields and from lower labor costs in the areas of pruning and canopy management. Winery response to the project suggests that the physical quality of the fruit is as good as, if not better than, other training systems now in use. Additionally, wine quality is perceived to be higher, possibly due to smaller berry size and/or the absorption of less reflected heat from the vineyard floor due to the taller trellis.

After spending about an hour and a half at the Dosio vineyard, and with much gratitude for Ernie’s hospitality, the tour continued on to Fresno for an orientation to the CSUF Enology and Viticulture program. The group was hosted by Dr. James Kennedy, Department Chair of the Department of Viticulture and Enology, Viticulture Chair Dr. Kaan Kurtural, and Dr. Sanliang Gu.

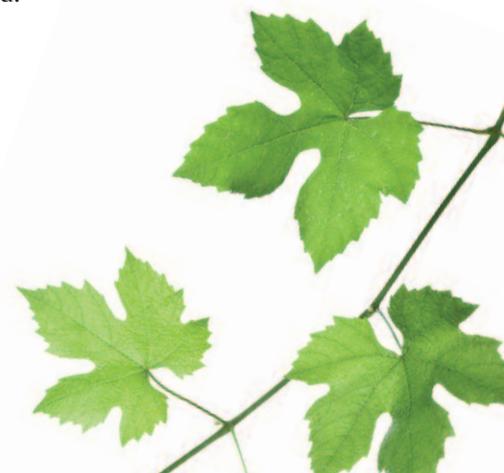
Dr. Kennedy conducted a tour of the CSUF Viticulture and Enology Research Center which includes classroom, laboratory, offices, and the Vincent E. Petrucci Library which houses an extensive collection related to viticulture and enology. From the terrace outside the second floor of the building the group got an overview of the campus vineyards before touring the school’s commercially operated winery in an adjacent building. Dr. Kennedy placed emphasis on the availability of the university as a research resource and their interest in working cooperatively with growers in the Lodi District in any area that might be of mutual interest.

Dr. Kurtural and Dr. Gu each spoke to the group about ongoing viticultural research projects. Dr. Gu described a new approach to mapping California viticultural districts based on a modified degree-hour heat summation calculation. He also described efforts oriented toward increasing the quality of winegrapes grown in the southern San Joaquin



Valley. One of those strategies involves early season hedging of vines to delay bloom until late spring thereby pushing cluster ripening into early November when temperatures would be significantly cooler. Another involves the use of the plant hormone abscisic acid (ABA) for color enhancement.

Dr. Kurtural’s presentation described ongoing work in mechanical pruning coordinated with various levels of mechanical shoot thinning and the utilization of several regulated deficit irrigation regimes in Syrah. This work once again emphasized the recognition of the need for increasingly mechanized vineyard management systems as well as a push toward quality enhancement. Dr. Kurtural suggests that refined management techniques can encourage smaller berry size with no reduction in total yield.



GROWER PROFILE - RON SILVA

The uninitiated might wonder why it is that Ron Silva's name comes up so often in conversations with local winemakers. A little bit of investigating clears up this question and reveals another of the strengths of the Lodi District. Ron did not get his start as a local boy who was raised on a ranch but from an early age felt that farming was always in his heart. After growing up in Hayward and receiving a degree in marketing from Cal State Hayward, it was during his seven years in the army reserves and an early career as a realtor, mortgage broker and property manager that the connection to farming was finally made through exposure to rural properties. Today Ron farms approximately 300 acres of vineyards in San Joaquin and Sacramento Counties. He also runs about 300 cows on an additional 700 acres of pasture. Catching up with him and having an uninterrupted conversation can be a challenge because he seems to have so many things going on.

Despite appearances to the contrary Ron maintains that he doesn't work. He says he enjoys his daily activities so much that whatever else you might call them the term "work" doesn't apply. One of the keys to sustaining this zeal for grape growing has been to maintain what he calls a mid-size level of operation. At 300 acres Ron feels that he is large enough to indulge his interest in a fairly complex

and sophisticated business model and small enough to be in touch with all aspects of the grape growing process. That model, which is aimed at servicing high quality niche markets, is achieved by growing twenty-one varieties of grapes with meticulous attention to detail. It is noteworthy that the only listing of Torrontes in the California crush report is among those twenty-one varieties which he sells to thirty-four clients.

There are several interconnected factors which contribute to the success of Ron's business. In growing so many varieties and selling to so many customers his exposure to risk has been diluted. By keeping the business a manageable size it is still possible to maintain a high level of quality through a very personalized approach to the management of his vineyards. Implicit in the accomplishment of his goals is the fact that Ron is possessed of the requisite energy and enthusiasm to be able to maintain a good focus on all the intricacies of a diverse operation.

In addition to understanding the distinct natures of so many varieties of winegrapes, Ron is fundamentally a good farmer with a broad base of practical agricultural knowledge. That background is strengthened by his work with cattle and pasture land, and those areas of expertise are integrated into the vineyard operation. A ready example



would be the composting of his own cow manure as well as cow and horse manure from outside sources for use in his vineyards. Another would be his emphasis on the critical importance of having a healthy productive vine at every stake. While the health of every cow in the herd might be more obvious, the health of every vine is just as important but may require greater effort to monitor.

Ron is a participant in the "Lodi Rules for Sustainable Winegrowing" program. It is another one of the details that makes him stand out from many of his competitors. He says that the "Lodi Rules" speak to his customers about the issue of credibility. It is here that an interesting question might be raised. Is Ron a credible grower because he is a participant in the program, or is it that because he is a credible grower he participates in the program? Either way, having thirty-four customers who don't seem to be reluctant to attribute part of their success to Ron is high praise indeed.

LWC IN THE VINEYARD

- PAUL VERDEGAAL

2011 continues to confound and amaze many, including me. The season has been what seems more typical of recent years; in that there is little average about it, which brings challenges. Seasonal temperatures were well below long term average, along with extremely above average rainfall totals well into June. This was good for soil conditions, but posed difficulties in managing vines and powdery mildew.

The cool temperatures early in the year, transitioned to a roller coaster ride more recently of slightly above average temperature to slightly below average. Even during the "hot

spells", night time temperatures have been consistently below average. The importance of cool night time temperatures may be expressed in very good quality again this year as in 2010. Total acids and pH levels appear to be very good. The problem has been variability of berry development within clusters and between clusters. The poor set and low cluster counts; with many shot berries in the majority of vineyards confirms the small crop. A scattered spring frost mostly on the Westside of Lodi did not help. There are exceptions, especially in young vines, depending on variety and location. There is a significant amount of summer (sour) bunch rot this season, especially in tight clustered and thin skinned varieties such as Zinfandel. There was some Botrytis Rot early in varieties like Chardonnay,

but it seemed to either dry on its own or was stopped with some well timed sprays and so dried up with minor damage.

It's difficult to say with certainty why there is so much Sour Rot this year, but above average rainfall into late June provided excellent (and maybe excessive) soil moisture for early berry development. Growing conditions were moderate to cool and cluster count along with berry set was reduced. The lighter crop and ideal growing environment may have caused large berries and weak skins. With some roller coaster hot and cool temperatures later in the summer, berries began to break down as harvest approached. The Sour Rot was not as bad as some years (1998 and 2005), but it was ugly in many locations this year, especially with Zinfandel.

Another effect noticed this year was some berry shrivel; a slight amount from the still mysterious Berry shrivel disorder, but most of it from the long drawn out bloom which resulted in variable berry development and ripening, so that clusters often had very green (and shot) berries along with almost fully ripe berries at mid-veraison.

Insect pests and spider mite pressure appears to be average or light, but there have been a few scattered problems especially with late season mites late in the year as harvest began. There were some powdery mildew problems from late rains disrupting protection schedules and cool temperatures, but more material options and intensive programs helped mitigate damage to fruit.

Below average and at times variable temperatures brought harvest at least 14-20 days later than the long term average. Picking started around August 17th for Sauvignon blanc and some Chardonnay going to sparkling wine production. White Zinfandel harvest began in earnest around August 30, compared to a long term average of about August 10. The light crop and ideal growing conditions have helped mid-season variety harvest to catch up considerably. By mid September Chardonnay, Sangiovese, and red Zinfandel were ready. We had only three days above 100°F compared to 13 days last year and an average of about 12 for an average season. As harvest continues, grape picking proceeds at an uneven pace. Colors and flavors seem to be developing well, with good acid levels.

Invasive species of pests are becoming a more mundane, but costly consideration. Vine Mealy bug is still spreading throughout the county. It seems to be manageable, but can't be ignored, so it's good to be on the lookout and aware of any new infestations, often indicated by sooty mold or excessive honeydew in clusters, spurs or cordons. A high degree of ant activity in and around vines can also indicate problem spots. Good places to begin looking even after harvest are where birds tend to roost. European Grapevine Moth has not reappeared, so that quarantine should expire. However, Light Brown apple Moth (LBAM) is spreading and still requires a quarantine compliance (that hopefully will change in the face of reality). Oriental Fruit Fly was discovered in Stockton and currently affects vineyards within a few miles of the city limits. Check the Ag Commissioner website for information.

It's as important as ever to monitor and to control some of

the more noxious and troublesome weeds BEFORE THEY SEED. Star thistle continues to be more of a problem along roadsides and it requires attention or it will dominate mowed areas, row middles and habitats. Mare's Tail and Fleabane are showing signs of resistance throughout the state, so a more integrated strategy of weed control may be needed.

Demand is good and prices may improve slightly. The demand for Cabernet Sauvignon and Merlot are good, with two short crops in a row. The crop across varieties and sites appears to be about 10 to 15% below last year, which was already 15-20% below average on a per acre basis last year! Normally a large crop follows a short crop. Next year could be large, unless Mother Nature throws another curve ball.

Consumer demand is still growing for Lodi wines and two light crops seem to have greatly reduced inventories; maybe setting the stage for better prices. At the same time with a lagging general economy, rising costs, more regulations, and increasing field labor shortages, challenges continue to mount to cover production costs. The good news is fruit quality looks to be good and winegrowing is still considered in a positive light by the general public. *Good luck as 2011 finishes up.*

FALL CHECKLIST

- ✓ If the weather stays dry, post harvest irrigation to help maintain soil moisture is more than okay until rains are steady.
- ✓ Little to no nitrogen should be applied now, but potassium now (or early next year) is okay. It won't "move" like nitrogen. To get full benefit of compost, it needs to be disked in.
- ✓ Make a note of any increasing problem weed species.
- ✓ Mark any vines with excessive red leaves and/or leaf roll for monitoring of fruit quality next year or for possible removal.
- ✓ Renew your Ag Waiver Discharge membership.
- ✓ Update your air pollution mitigation plan if you have 100 acres or more in a single vineyard.
- ✓ Review your pesticide use reports and get everything up to date as there is continued interest to keep agriculture "accountable" for problems real and perceived.
- ✓ If you store more than 1,320 gallons of petroleum products, you need to write a plan for storage and emergency; this is to comply with Calif. Health and Safety Code (rev. 2011).
- ✓ For VMB, Lorsban (chlorpyrifos) post harvest can help keep it checked until the summer control program. The new material Movento has performed well in research trials and in field use for a post harvest alternative. Be careful of sprays before a storm, especially near natural drains and waterways.
- ✓ Gophers, voles and squirrel activity are still common and may require baits, gas cartridges, fumigant pellets, trapping, shooting, or a combination methods. Ground squirrels are fair game, tree squirrels require a depredation permit. Owl boxes can help stabilize rodent populations, but do not control them.

OWL SAFE GRANT AWARD

The success of the Lodi Winegrape Commission's Owl Safe program has been recognized by Pacific Gas and Electric Company with the award of a \$25,000 grant for a second consecutive year. The award is to be used to provide Lodi District growers with new owl nesting boxes and "Owl Safe" installation instructions at no charge to the grower. The cooperative effort between the LWC and the utility company benefits both in addressing their concerns for finding ways to continue to operate our businesses in ways that respect an ecological balance.

The Lodi Winegrowers Workbook and the "Lodi Rules for Sustainable Winegrowing" program have both long advocated the encouragement of barn owl populations for the benefits they provide in controlling gophers, voles, mice, and rats. While a single owl may eat one or two gophers per night, a clutch of growing young owls in a nest can eat up to five or six each. Over the course of a season the impact of owls on gopher populations is significant.

As owl boxes have been installed over the years, one of the things we have learned is that if the owls land on certain sensitive parts of power transmission lines, they can cause serious and expensive problems for the utility company and its customers with catastrophic consequences for the owl. It is for this reason that PG&E prohibits mounting the boxes directly on their poles. In order to address this problem PG&E wants to



encourage appropriate installation of the nesting boxes and the removal of old boxes from power poles.

Coincidental with the awarding of the first grant in 2010 Chris Storm of Vino Farms and Mark Browning, a researcher from the Pittsburgh Zoo who has specialized in owls, were working to establish a multi-year field trial on a 100 acre Vino Farms Chardonnay block. The aim of the project is to correlate the number of owl boxes and owls with the rodent control achieved. The LWC Research Committee was able to support the Vino Farms effort by directing some of the grant funding toward providing nesting boxes for the study, which is ongoing and encouraging.

During the coming year the Commission will facilitate the distribu-

tion of more nesting boxes to our growers. There will also be an effort to gather feedback on their disposition in the field. Recipients will be asked to report on how many of the new boxes have resulted in the removal of old boxes from utility poles and also on their ability to attract owls. This is a work in progress for all who are involved. Although Pacific Gas and Electric has received requests for similar benefits in other areas of the state, it will continue to be only a Lodi District program for the near term with an eye to expanding to other districts as we are better able to assess its effectiveness.

Growers who are interested in acquiring an owl box for the upcoming season should contact Walt Chavoor at the LWC office by phone at 367-4727 or by email at walt@lodiwine.com.

CALENDAR

NOVEMBER 8, 2011, 9:00 AM – GROWER BREAKFAST MEETING – BURGUNDY HALL
"Vineyard Propagation: How, When, Why, and What to Avoid" presented by Paul Verdegaal, UCCE Farm Advisor.

DECEMBER 6, 2011, 9:00 AM – GROWER BREAKFAST MEETING – BURGUNDY HALL
"Water Quality with Emphasis on Safe Lorsban Applications, and the 'Lodi Rules For Sustainable Winegrowing'" presented by Terry Prichard, UCCE Water Management Specialist.

RESEARCH UPDATE

The Lodi Winegrape Commission currently sponsors two ongoing research projects which have direct benefits for the Lodi District. Research on “Soil-Specific Potassium Management in the Lodi Winegrape Region” is being conducted under the direction of U.C. Cooperative Extension Soils Specialist Dr. Stuart Pettygrove. The second project, being carried out by Cooperative Extension Specialist Dr. Kent Daane, is titled “Improving Sustainable Controls for Insect Pests in the Lodi-Woodbridge District.”

The potassium study was begun in 2006 and will be completed in 2012. The first phase of the research analyzed over seven hundred soil samples from throughout the district. It was found that many, but not all, district soils “fix” potassium in varying degrees making vine uptake more or less difficult. Currently there are field trials being conducted in several district vineyards to determine correct application rates of potassium fertilizer depending on vine needs and the fixation potential of each soil. By the end of the project it is expected that growers will have access to a lab test which will show the degree of potassium fixation in their soil. With

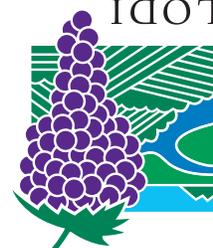
this information it will be possible to make a more accurate recommendation regarding whether or not potassium fertilization is required and in what amount.

The second study has several sources of funding and receives partial support from the Lodi Winegrape Commission research budget. It is geared toward the control of the vine mealybug which was accidentally introduced into California vineyards about twenty years ago. The control strategies being investigated include the use of chemical controls, mating disruption, and the use of vine mealybug parasites. Although this study is statewide in its scope, the recent release in the Lodi district of a species of Anagyros wasp imported from Spain and whose target is almost exclusively the vine mealybug, was directly attributable to LWC participation in the statewide effort.

Both of these studies have practical value for local growers. Their support is the result of the work of the Research Committee of the Lodi Winegrape Commission.

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LODI
WINEGRAPE
COMMISSION



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