JANUARY 2004

LODI - WOODBRIDGE WINEGRAPE COMMISSION

RESEARCH·IPM NEWSLETTER

A Brief History of the "Ag Waiver"

BY CLIFF OHMART
LWWC Research/IPM Director

Over the last 12 months most of you have read or heard about the issue of wastewater discharge from irrigated agricultural lands, often termed the 'Ag Waiver' issue. Furthermore, many of you received, within the last 2 months, a flyer in the mail from the San Joaquin County Resource Conservation District notifying you that you could sign up with a regional watershed coalition group to help you 'comply' with the waste water discharge from irrigated agricultural lands requirements. About the only thing that most people agree upon regarding this issue is that total confusion seems to be the order of the day. In the next few paragraphs I will present a brief history of the Ag Waiver issue hoping that it will help you understand how it evolved and maybe put your confusion in some perspective.

The regulatory world divides pollution that adversely affects water quality into two types; point source and non-point source. Point source pollution is literally what comes out of pipes into bodies of water, such as sewer lines, storm-water outlets, and industrial dumping. Non-point source pollution is any pollution that cannot be traced back to a 'point'. Much of agriculture's contribution to impaired water quality is through non-point source pollution, for example, from fertilizers and pesticides that get into surface or ground water, or sedimentation from soil erosion.

Water quality in California is addressed by two major laws, the California Porter-Cologne Water Quality Control Act adopted in 1969 (aka California Water Code or CWC), and the Federal Water Pollution Control Act Amendments of 1972, better known as the Clean Water Act. The Clean Water Act requires that each state establish water quality standards. In California, for example, two of the basic water quality standards for lakes, streams and rivers are that they are swim-able and fish-able. After the Clean Water Act went into effect much of the attention to pollution focused on point source pollution. Years ago many of you may have read about rivers around the Great Lakes catching on fire as a result of industrial contamination. This was the result of point source pollution and, fortunately, it has been significantly reduced. However, once major progress was made in reducing point source pollution, people realized that water quality was also being impaired by non-point source pollution. Runoff from agricultural lands is a potential source of non-point source pollution for our waterways in California. Therefore, since the late 1980's much more attention has been focused on pollution from runoff.

The CWC provides the California Regional Water Quality Control Boards with the authority to regulate discharges into water for both point and non-point source discharges through the use of Waste Discharge Requirements (WDR). The Act requires that anyone 'discharging' or proposing to discharge waste that could affect water quality to file a report of waste discharge (ROWD). The Act then requires the Regional Boards to prescribe a WDR. On March 26, 1982 the Central Valley Regional Water Quality Control Board adopted resolution 82-036 "*Waiving waste discharge requirements for Specific Types of Discharge*". The resolution contained 23 categories of waste discharges, including irrigation return flows and storm water runoff from agricultural lands. Now you know where the term 'Ag waiver' came from. The resolution also listed the conditions required to comply with the waiver. However, due to a shortage in resources at the time the Regional Board did not verify if people were complying with these conditions and the program became a 'passive' one. In other words no one paid much attention to this whole issue.

In 1999 Senate Bill 390 was signed by the governor, which changed the California Water Code that authorized WDR waivers. As a result of these changes, any waivers in place on January 1, 2000 would sunset on January 1, 2003, which included the waste discharge waiver for irrigated agricultural lands. Much has happened in the regulatory community since January of 2000, including at least one well-timed and successful lawsuit that prevented the Regional Board from continuing the Ag Waiver program in its past form. In December of 2002 the Regional Board committed its staff to preparing a 10-year implementation program to regulate discharges from irrigated lands to assure compliance with water quality standards.

In mid 2003 the Regional Board adopted two conditional waivers for discharges from irrigated lands. One was for coalition groups that form on behalf of individual dischargers (in our case winegrape growers) to comply with California Water Code and Regional Water Board plans and policies. The other one was for growers who wanted to comply as individual entities with California Water Code and Regional Water Board plans and policies. To be covered by the waivers the coalition or individual must have filed by Nov. 1, 2003 a Notice of Intent and General Report to the Water Board that contained specific information about their farm and then must adhere to a plan and timeline that includes, among other things, a farm management plan and water monitoring. If you are a grower in San Joaquin County and have not been contacted by anyone to join a watershed coalition you have been included in the coalition anyway. This was done because

the timeline allowed for forming coalitions was so brief the San Joaquin County Resource Conservation District realized they would not be able to reach all growers and get their decision before the deadline.

Practically speaking, the Regional Water Board does not have the resources to deal with individual growers on this matter; there are too many growers and too few Regional Water Board staff. Furthermore, the California Farm Bureau Federation, in conjunction with an independent consultant, has studied this option closely and estimates that for a farm of 200 acres or less, development of a farm plan and purchase of water monitoring equipment would cost approximately $3,000-$6,000 per farm. Annual monitoring and reporting costs for that farm are likely to be $7,000-$14,000. In contrast, estimates that have been made for costs to growers in a coalition are $2-$10/acre per year. The coalition approach is thought to be more user friendly and cost-effective, from the growers' perspective, and manageable from the Water Board's perspective. There is currently considerable discussion between the Regional Board and among growers as to what is considered reasonable information to supply to the Board and what is unreasonable. Also, because the 10-year plan has not yet been developed there is concern in the grower community that they are agreeing to something that has not been defined yet. Moreover, everyone realizes that whatever is decided upon for compliance it is going to cost money and the condition of the State's budget means that growers most likely will bear the financial burden.

Given the magnitude of water quality issues in California, the sensitive nature of privacy issues for landowners, and the likelihood that the cost of farming will go up as a result of the resolution of the Ag Waiver issue, it is no wonder that everyone is concerned. Confusion exists because the Regional Water Board has changed its stance at least once over the last 12 months and the lines of communication to individual growers about this issue are weak at best. To further complicate things we have a new governor. I hope that presenting a brief history of the Ag Waiver helps in understanding how we got to where we are. For more historical and up to date information on the Ag Waiver issue, you can visit the Regional Water Quality Control Board website at: www.swrcb.ca.gov/rwqcb5/programs/irrigatedlands/index.htm.

For more information on the local watershed coalition in San Joaquin County call the San Joaquin County Resource Conservation District office at 209-946-6456 ext. 125. For other counties call your local Resource Conservation District office.

IN THE VINEYARD

BY PAUL S. VERDEGAAL
University of California
Cooperative Extension Farm Advisor

DECEMBER 2003

The 2003 season was a viticultural potpourri of both weather and marketing. This mixed bag of events and conditions looks as if it will result in some very good quality and a good start to bringing grape supply into balance with demand. Prices to most growers although still soft at least stabilized and showed some encouraging signs. There were lower yields in many cases, but there were less grapes hanging unharvested after the close of the season.

Crop loads were slightly below average, but there were exceptions and there was variability across varieties. Generally, Zinfandel and Merlot were the most severely affected with very light set of fruit. Total rainfall was close to normal, but early winter rains were light and deep soil moisture was lacking later in the season. The coldest April since 1983 was followed by mild spring conditions until the hottest July in memory. Several light rains just before and at the start of harvest caused some scattered problems from the variable nature of the rainfall pattern.

Although powdery mildew pressure was light and leafhoppers about average, spider mite problems were severe and everywhere. In spite of mite problems and the scattered rot, the 2003 vintage holds good potential for wine quality. As with the last two years, the challenge continues to not only maintain quality, but to increase it.

The 2003 vintage started slightly later than has been normal in recent years. Across varieties, maturity progressed slowly at first then sugars increased quickly to high levels. Rot incidence was generally low, but Chardonnay and Viognier had scattered problems depending on the rainfall pattern. Overall, the year was about normal for total degree-days, but vines suffered some heat stress in July. Harvest progressed at a moderate pace for a change, but as the year was mixed so was variety maturity. Many early varieties were later and later varieties early, with lots of overlap.

Regulated deficit irrigation (RDI) is becoming a more common practice, which has been good for quality and saves some money. But as with last year, I did see some vine and fruit stress late in the year after the extreme heat in July. Less water is generally better, but attention to meet vine needs as affected by available soil moisture (low this year) and extreme weather is important. With RDI, the actual water application (amount, timing, efficiency, and uniformity) becomes even more important. Terry Prichard is finishing a new irrigation publication supported by the LWWC, which will be holding a meeting in the late winter/early spring on soil moisture monitoring devices and other irrigation topics. Following a reasonable irrigation schedule using ET demand and newer technology such as pressure bombs or just monitoring actual hours and amounts of water application will help eliminate some of the mystery about vine water needs. The best way to make sure is: *keep good, detailed records*.

Other Post Harvest considerations include: evaluate your fertilization program, problem soil conditions, and measuring vine balance by measuring pruning weights (see LWWC Newsletter December 2000 or on the web: cesanjoaquin.ucdavis.edu). If you weren't able to attend the recent field day on pre-pruning and pruning, check out the topic from one of those sources.

Keep an eye out during pruning and vineyard repairs for the new problems which won't be going away: such as: the Glassy Winged Sharp Shooter (GWSS), and infestations of Vine Mealy Bugs (VMB).

Check with Cliff Ohmart and Chris Storm, or me or log on to ucipm.ucdavis.edu for information. And of course stay in touch with your PCA. We will be hearing more about fighting these new invasive pests. The challenge continues to use any and all opportunities to build on the hard earned reputation of the Lodi district.

GROWER PROFILE: *Jonathan Wetmore*

BY CHRIS STORM

Jon Wetmore knows the Lodi area well. He was born and raised here. But having lived in Lodi for most of his life, isn't the only reason Jon knows how to grow high quality winegrapes. He also knows what it takes to make exceptional wine and he is doing so at his Grands Amis Winery. By combining his knowledge of grape growing and winemaking in the Lodi area, Jon has become one of the regions most experienced winegrowers.

Before I explain Jon's viticulture career, a little background information should be discussed. He is the older brother to three sisters, whom he enjoyed hassling while they were growing up, though he claims they have since made up. He attended Lodi high school and graduated in 1970. Jon's father worked as the Personnel Director for Lodi Unified School District, while his mother was busy raising the children at home. After high school, he studied for two years at Delta College and a semester Fresno State University.

Jon's first experience in a vineyard was in 1969 hoeing weeds as summer job. After callusing his hands for a few months, he started driving tractors and eventually became a ranch foreman. While still in school, he rented his first Tokay vineyard. He now farms 14 winegrape varieties on nearly 1800 acres, 80 acres of cherries, and co-owns a winery making delicious wines and wining awards. That's not bad for a guy who started his viticulture career with a hoe in his hand.

Jon calls himself a conventional grower with an IPM approach and he has been using this strategy for the last 14 years. In 1990, E & J Gallo winery asked some of their growers to participate in a program that encourages the use of certain IPM techniques. These growers, including Jon, planted cover crops attractive to beneficial insects and supplemented these natural populations by releasing other beneficial insects like lacewings. When the BIFS program began in Lodi, Jon joined at its inception in 1996 and enjoys sharing information between growers. Jon thinks this information sharing is not only good for the BIFS growers, but it also spreads throughout the rest of the growers and benefits the entire district.

One of Jon's major goals for his farming operation is to improve efficiency and he believes the greatest potential for this is by mechanizing, because hand labor is becoming too expensive to utilize. He recently purchased the Pellenc 3400 with the harvesting head, leafer, pre-pruner, sprayer, and three-point hitch attachments. By combining all of these vineyard operations onto one machine he saves in hand labor and in extra equipment costs. However, Jon is concerned about the quality differences with mechanical vs. hand operations and hopes this will be solved as technology progresses. The new Pellenc will also allow him to do some custom harvesting, leaf removal, and pre-pruning which will help offset the cost of purchasing the machine.

Jon's operation is all about quality and is a member of Mondavi Woodbridge Quality Enhancement Team for both red and white grapes and wine. He says that "without quality, we'll have $90 Cabernet and no one can survive on that." He believes that the Lodi district needs to be at the forefront of quality innovations. Jon achieves this quality by using sustainable techniques such as allowing a resident cover crop to grow between his vine rows and mowing rather than disking. Most of his vineyards are irrigated using drip, which he believes has made one of the biggest improvements in quality. The combination of cover cropping and drip irrigation allows Jon to reduce vigor and bring the vine into balance, which is so crucial for high quality wine. Jon is also a big proponent of underground drip, although he first feared the system because he couldn't see the lines, and now uses it on 150 acres and plans to install it elsewhere.

YEARS IN THE WINEGRAPE INDUSTRY: 35
ACRES IN THE DISTRICT: 1800 acres

VARIETIES GROWN: Alacante Bouschet, Barbera, Cabernet Sauvignon, Carignane, Chardonnay, Grenache, Malbec, Merlot, Pinot Gris, Petite Sirah, Petit Verdot, Sauvignon Blanc, Syrah, and Zinfandel.

Along with growing winegrapes and cherries, Jon and his business partner Cathy Keil, have built a winery named Grands Amis (translation: Great Friends). They have a beautiful tasting room at Vino Piazza in Lockeford where the winery has been doing very well. Their first vintage, a 2000 Zinfandel, is nearly sold out and his 2000 Carignane is completely sold out. Kerry Wald-Zeiman is the winemaker for Grands Amis and she crushes only estate grown grapes for the wines. Jon decided to enter the wine side of the industry after the Mondavi Winery's sponsored a grower trip to France. Here Jon enjoyed a European rose` so much that he wanted to make one himself and started the winery. Other Grands Amis wines include Petite Sirah, Carignane Rose`, Cabernet Sauvignon, Barbera and a Syrah Port. In the future, Jon hopes to release a blend of Petit Verdot, Malbec, and Grenache.

Whether it is growing 1800 acres of winegrapes or making small batches of handcrafted wine, Jon has shown he can do both very well. He has also emerged as one of the strongest proponents for the Lodi wine industry and of sustainable farming, but more importantly, he has become an excellent winegrower.

"WITHOUT QUALITY, WE'LL HAVE $90 CABERNET AND NO ONE CAN SURVIVE ON THAT."

Calendar of Events

JANUARY 14, 2004

Converting your farm to solar power to meet your farm's electrical needs. Darryl Conklin, Renewable Technologies, Inc. Central Valley Waste Management Services Conference Room, 1333 E. Turner Rd., Lodi. 8:30am-10:00am.

JANUARY 27-29, 2004

Unified Wine & Grape Symposium, Sacramento Convention Center, Sacramento, California. www.unifiedsymposium.org

Announcing a New Series of Sustainable Viticulture Workshops

Purpose: To provide a workshop for LWWC members interested in developing an action plan for a specific aspect of their vineyard management

Process: One workshop will be held each month, from December to May, and each one will be devoted to a particular vineyard management area, for example, pest management, or viticulture, or water management, etc. At the workshop, each grower will identify needed management improvements using the appropriate chapter of the Sustainable Winegrowing Workbook. Expert(s) will be on hand to assist the grower in developing an action plan. Workshops will last 2-3 hours.

Outcome: LWWC members will leave the workshop with a detailed action plan and methods to implement it based on expert advice.

What you should do: Look at the schedule of workshops on the right and if you are interested in attending call Cliff or Chris at the LWWC office to join the list for that workshop. The specific date for each workshop will be arranged by phoning the interested growers and picking the best date. Call now, even if it is for a workshop several months from now.

SUSTAINABLE VITICULTURE WORKSHOP SCHEDULE

December
Pest Management

January
Ecosystem Management-Habitat

February
Viticulture

March
Soil Management

April
Water Management

May
Human Resources

2545 W. TURNER RD.
LODI, CA 95242

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