Oklahoma State University and Oklahoma Cooperative Extension Service

Le Vigneron

A newsletter for the grape growers and wine makers of Oklahoma

Volume 1, issue 2 October-December 2006

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Inside this issue:

Another Vintage Year

The harvest is finally over and winemakers can begin to dream of vintage creations; however, 2006 was a difficult year for grapevines. The winter drought conditions that carried on straight through the summer coupled with the winter injury that occurred in March and early April really stressed some of our grape cultivars. Yields are down from previous years, but in some cases quality may be better due to the lower yields. In a quick review of our 'Chardonnay' rootstock trial at Perkins, yields for 2006 were much less than those of 2005. We harvested the equivalent of 14 tons per acre from this trial in 2005 (I think the phrase "severely overcropped" would be appropriate here), but only less than 6 tons this year (still probably too much for high quality fruit). I believe this to be indicative of many of the cultivars we test at the Perkins Experiment Station. We were so concerned about the drought and heat of summer that we did not stop watering before harvest – we couldn't put enough water on to keep up! I hope this will pay off as we head into fall and winter.

We hope that you find this second issue of our newsletter to be useful to you and provide some knowledge that you didn't have before. Aside from the usual stable of writers, we have a guest article from Christopher Lake, viticulturist at Stone Bluff Cellars in Haskell on Winery and Grower relationships. Enjoy this issue and feel free to contact us with your questions, comments, and criticisms.

Status of the Grape Grower Survey

Eric T. Stafne

Earlier this year, with the help of John Coleman at the OGGWMA, I conducted a survey of the grape growers in Oklahoma. The deadline for getting responses back to me is October 1, 2006. So, even though the surveys that were done through the OGGWMA are nearly completed I do not have the data compiled yet to present in this newsletter. In hopes that I would get a few growers who were not associated with OGGWMA, I also distributed the survey to OSU county educators in all 77 counties. So far a few of them have returned surveys, but their deadline is not until November 1st. My hope is that by the OGGWMA annual conference I will have compiled all the data from the surveys and be able to present it to the membership. With this information we hope to assess the research, extension, and teaching efforts necessary to address the grape growing audience and help to direct the extension viticulture and enology programs at Oklahoma State University.

2007 OSU Grape Management Short Course

Eric T. Stafne

Unbelievably, it is time to think about the 2007 grape management short course! The 2006 course will end soon and sign-up for the 2007 course will begin in November or December. If you are not familiar with the course, the concept is to familiarize present and potential Oklahoma grape growers with grape management requirements throughout the growing season. The course is taught March through September, meeting one Thursday afternoon per month for 4 hours. Many different topics are covered, including: planting, pruning, fertilization, entomology, plant pathology, cultivar selection, and post-harvest issues. If you are interested and want more information, please contact me (my email and phone number are on the back page) or visit our webpage at www.okstate.edu/ag/asnr/hortla/ftpcns/grapes.htm. If you wish to sign up for the 2007 course, please contact Stephanie Larimer at 405-744-5404 or stephanie.larimer@okstate.edu after November 15th.

Winery and Grower Relationships: The Art of the Deal

Christopher Lake, Viticulturist, Stone Bluff Cellars

Wineries need grapes and growers need a buyer for their crops. This is the basis for a relationship between wineries and growers. The solution appears to be simply a matter of arranging a meeting between growers and winery representatives where a deal is struck to provide for a mutually beneficial outcome. In many cases, that is exactly what happens and at the end of the season both parties conclude business mutually satisfied. Unfortunately when disputes arise the resolution can be a long time coming and leave one or both parties frustrated with the outcome and the wasted resources spent on the argument. Now that we are near the end of the harvest season in Oklahoma and grape payments are on the minds of growers and wineries alike, this topic seems to be appropriate to discuss.

The word *contract* is derived from two Latin words, the prefix *com-*, meaning together and the root word -*trahere-*, meaning to draw, pull or drag. This implies a drawing together of the parties under the agreement. The encyclopedia identifies contracts as a part of the general law of obligations and performance of a contract as a duty. Breach of the contract is recognized by the law and also lawyers, who will gladly receive at least 50% of the spoils after the battles are over. If it seems as if this scenario is a gloomy picture of what is normally a successful business arrangement it only serves to illustrate the point that when misunderstandings occur with grape contracts the remedies are usually insufficient and expensive. It is likely that more informed negotiations will result in better outcomes for wineries and growers. To that end, we will revisit the basis of the grower/winery relationship and will examine the individual needs of each of the parties.

For growers, grape production is a long-term endeavor requiring significant investment of capital with money flowing in the wrong direction for many years. Eventually vineyards become self-sufficient and hopefully one day will become profitable. Friends of mine who have been growers long enough to know say that profit is made in vineyards "on the back end" of ownership. Lenders or owners who supply capital to vineyard operations should also know this and will seek to encourage long-term contracts to match the long-term investments. But wineries are less enthusiastic about long-term agreements.

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Contracts continued

They seek short-term commitments to find the lowest cost per unit of production; until the demand for wine exceed the supply of grapes coming to the winery. At this point wineries will seek to lock in supply at what ever terms are available. Several other observations on the needs of the two parties should be taken into consideration during contract negotiations. Growers have the following objectives: highest return per acre, production of fruit at the minimum quality standards needed to satisfy the winery, a financially secure winery, quick payment terms and lastly a sense of pride in their farming abilities. Contrasting winery objectives are: low cost per unit, receiving fruit of maximum quality standards to produce wines that surpass the consumer's expectations, payment terms to growers that will not drain the winery's operating budget during critical periods and cooperative growers who are willing to accommodate winemaker's requests. When these objectives are compared it may seem that they form opposing positions that would hinder cooperation, and this is the case during a dispute. Normally the needs of growers to sell their crops and wineries to buy grapes are greater than the differences between the two parties, allowing grape purchase contracts to produce profit and security for both parties.

The nuts and bolts of the contract should be as explicit as necessary to insure that both parties have a fundamental understanding of the principle elements of grape purchase contract. The principle elements include: 1) Identity of the grapes subject to the contract – this includes variety and location on grower's farm, 2) Term of the contract – one season or multiple years, 3) Price and payment – 100% in thirty days or sometimes as long as six months, 4) Delivery and acceptance – when, where and who makes the decisions, 5) Grape quality – mutually agreeable standards like Brix (sugar), acid, pH, material other than grape (leaves, stems, bugs, etc…), defects (disease, bird peck, etc…), color, flavor or any other parameters agreed upon, 6) Remedies and dispute resolution – may include choice of law and venue, force majeure (events beyond the control of either party), security interests for grower (grower's lien), litigation, arbitration or other means of settling the dispute. Attractive incentives to reward superior quality (i.e. bonus for grapes within narrow range of Brix and pH specifications) and penalties for substandard fruit can be included to mediate minor problems. There are some examples of grape contracts available from knowledgeable sources (for example Bruce Zoecklein at Virginia Tech has a very thorough sample contract at www.fst.vt.edu/extension/enology/extonline/harvest.html).

Oklahoma-Arkansas Horticulture Industries Show 2007

Eric T. Stafne

Another educational opportunity for grape growers is happening in Fort Smith in January. The 2007 HIS is being held at the Holiday Inn Civic Center on January 5th and 6th. The theme of the meeting is "Horticulture for Food and Fun", so this covers a lot of areas including agri-tourism. Several speakers will present material pertinent to grape growers. Among the topics to be covered are weed control for small fruits, insect management in grapes, preserving phytonutrients and quality, factors affecting cold hardiness, light interception and fruit quality, table grape cultivars, sanitation and food safety, and several others. If you want more information contact me or visit the HIS website at home.okstate.edu/Okstate/dasnr/hort/hortlahome.nsf/toc/HIS.

Publications Still Available!

Eric T. Stafne

I still have a few copies of the 2006 Midwest Commercial Small Fruit and Grape Spray Guide. This is an outstanding publication that covers all small fruits. It even addresses weed control as well. There are 11 states that cooperate on this publication as a way to cut down on some of the duplication of information that is common to more than one state. The information in the guide is extremely useful to anyone with small fruit crops (I use it all the time!). Since OSU does not print these copies I pay for them with hopes to get reimbursed at some point. If $3 sounds like a bargain to you for a 75 page publication please contact me. I also have a couple copies of the notebooks we use for the grape management course. These are chock full of articles, presentations, fact sheets, and other good stuff totaling several hundred pages. These are available at a cost of $50.

New Proposed Allergen Labeling Regulations for Wines

William McGlynn

On July 26, 2006 the Alcohol and Tobacco Tax and Trade Bureau (TTB) published a proposed new rule outlining major food allergen labeling requirements for wines, distilled spirits, and malt beverages. The provisions of the new rule basically mirror those of the Food Allergen Labeling and Consumer Protection Act (FALCPA), which took effect in January 2006.

The new allergen labeling rule requires explicit labeling of eight major food allergens if they are present in wine. These are: Milk, egg, fish, Crustacean shellfish (e.g. crab or shrimp), tree nuts, wheat, peanuts, and soybeans. The food allergen labeling regulations that took effect in January 2006 mandate that food labels list the specific name of any fish, shellfish, or tree nut ingredient present in a food. The TTB labeling regulation differs from this in that there is no requirement to identify a specific fish on the label if any type of fish protein (e.g. a fining agent such as isinglass or fish gelatin) is used in the production of an alcoholic beverage. The generic term "fish" is sufficient identification.

It is important to note that the proposed regulation specifically treats processing aids, including fining agents, in the same way as any other ingredient for purposes of allergen labeling. Albumen (egg), isinglass (fish), fish gelatin (fish), and casein (milk) are commonly-used fining agents for wine. Therefore, any wine made using these fining agents will need to be labeled appropriately.

It is also worth noting that the regulations do not include provisions for minimum content levels. Because the minimum dose required to trigger an allergenic response is unknown, no threshold level of allergens have been set. The use of any amount of the eight major allergens as an ingredient or a processing aid in the production of a wine is sufficient to require specific labeling. Because of this, no testing of wines for the presence or absence of allergens will be required.

The specific labeling requirements of the proposed rule state that an allergen declaration must consist of the word "Contains" followed by a colon and the name of the food source from which each allergen is derived. For example, if a hypothetical wine was fined with both albumen and casein, the allergen warning would read "Contains: egg and milk." Final details of labeling requirements such as location, type size, and so on have yet to be determined. Changes in format and wording are still possible until the rule is finalized.

No date has yet been set for when the rule will take effect. The TTB is soliciting comments on the proposed rule and the comment period will extend until December 26, 2006 at least. Further information, a copy of the proposed regulation, and links for both viewing and making comments on the proposed rule are available online at:

http://www.ttb.gov/wine/wine_rulemaking.shtml

Observations on Phenoxy Injury at the OSU Perkins Experiment Station in 2006

Eric T. Stafne

In 2006, an unknown source of phenoxy herbicide drift was detected at the OSU Perkins Experiment Station. This drift resulted in visual symptoms of injury. The date of occurrence was unknown. The vines were rated going from East to West. Ratings were based on searching for vine damage in rows 16-20 of the research vineyard. The severity rating was dictated by finding at least one leaf of the most severe rating. Injury ratings were based on those described in Ogg et al.(1991) (Table 1, see this link for photos – http://feql.wsu.edu/eb/severity.pdf). Row 20 had the least rated injury and injury increased from East to West (Table 2). This may indicate that the drift came from the West rather than the East, but this is not definitive. There was nearly a full point increase in damage rating from rows 20 to 16 (2.2 to 3.1). A rating of 2.2 has rugose features and deformed margins. The leaf is somewhat smaller than normal. A rating of 3.1 has obvious deformed leaf margins, slight or missing sinus and the leaf is significantly smaller than a normal leaf.

It is difficult to ascertain whether or not the highest rated (most injury) is related to cultivar or placement within the field since the drift was not a controlled event. For example, the top three in injury rating ('Sunbelt', 'Cimarron', and 'Riesling') were in either rows 16 or 17 (Table 3). Only 6 cultivars were represented in more than one row. Three of those ('Chardonel', 'Vignoles', and 'Zinfandel') were in three rows and three ('Cynthiana', 'Rubaiyat', and 'Chambourcin') were in two rows. There appears to be no relationship within cultivars to row. 'Zinfandel' had a lower rating in row 16, than row 19 or 20. The injury in row 19 was higher than row 20 for 'Zinfandel'. 'Vignoles' followed the pattern of the row means. 'Chardonel' had its highest ratings in rows 16 and 20, but lower in row 19.

'Cynthiana' followed the pattern of overall row means, but had very high severity; much higher than the row means in rows 19 and 20 which concurs with Saenz and Hellman (2002) who declared that 'Cynthiana' was among the most susceptible cultivars, 'Vignoles' and 'Chambourcin' were intermediate, and 'Villard Blanc' was less susceptible. A study done at Iowa State University (2002) found that 'Cynthiana' and 'Traminette' were most susceptible, followed by 'Vignoles', 'Chambourcin', and 'Frontenac'. 'Chambourcin' showed no visible injury in rows 19 and 20, possibly suggesting that it is somewhat resistant to small doses of phenoxy herbicides, even though Kadir et al. (2003) stated that 'Vignoles' and 'Villard Blanc' were less susceptible to phenoxy exposure, whereas 'Chambourcin', 'Frontenac', 'Cynthiana', 'Traminette', and 'New York Muscat' were more susceptible. 'Rubaiyat' also had higher than average ratings in rows 16 and 18. The severity in row 16 was more than row 18.

There seems to be no relationship between severity rating and species in relation to the European and hybrid cultivars (Table 4). The average of *V. vinifera* was essentially the same as for the hybrid cultivars. The American species, *V. aestivalis* had high injury over 10 total vines.

Essentially the main knowledge we can glean from this drift occurrence is that there seem to be differences among cultivars with respect to how they respond to phenoxy herbicides. Unfortunately we do not know how much drift each vine was exposed to; however, with the results we have observed additional testing of cultivars may be important to be able to make recommendations to growers who plant in areas prone to phenoxy herbicide applications.

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See Tables on pages 6 and 7

Table 1. Rating scale based on the severity index proposed by Ogg et al. (1991).

Scale	Interpretation
0	No visible symptoms of phenoxy-like herbicide exposure. Margins and lobes are well defined. No apparent rugose (bumpy) texture.
1	Possible rugose features on leaf surface. Possible slight shortening of lobes and sinus. The leaf will grow to normal or near normal size.
2	Rugose features as well as disfigured margins. The leaf will be noticeably, but not significantly smaller than leaves with a lesser rating.
3	Deformation of leaf margins. Has diminished or possible lack of sinus. Lobes may be blunt. Lighter leaf color. Leaf will be significantly smaller than those with a lesser rating.
4	A definite deformation of leaf margins and sinus. Noticeable vein clearing. The leaf will be very stunted in size.
5	The leaf will be severely dwarfed. Veination will be parallel. The margins may resemble the end of a straw broom. Grossly deformed leaf.

Table 2. Results of phenoxy injury on grapevines at Perkins by row[z].

Row	Mean
16	3.12
17	2.93
18	2.48
19	2.45
20	2.20

[z]Row 16 to row 20 run from West to East.

Table 4. Comparison of *V. vinifera*, hybrid, and American winegrapes for rated susceptibility to phenoxy herbicide.

Grape type	Mean	# of genotypes rated
V. vinifera	2.69	4
Hybrid	2.70	20
American	4.00	1

Table 3. Ratings of phenoxy injury on grapevines at Perkins by cultivar, number of vines, and row.

Cultivar	Mean	Total vines rated	Row
Sunbelt	5.00	4	16
Cimarron	4.67	6	17
Riesling	4.25	4	16
Cynthiana	4.00	10	19, 20
Rubaiyat	4.00	3	16, 18
Traminette	4.00	3	18
Sauvignon Blanc	3.50	4	16
Villard Blanc	3.33	3	17
H211	3.00	3	17
Corot Noir	3.00	4	18
Frontenac	3.00	4	16
Valvin Muscat	2.75	4	18
Chardonel	2.71	14	16, 19, 20
H125	2.50	6	17
GG9356	2.36	4	18
Vignoles	2.00	14	16, 19, 20
GG9330	2.00	2	18
H249	2.00	5	17
SV17-347	2.00	5	17
Zinfandel	2.00	14	16, 19, 20
GG9318	2.00	1	18
GG9336	2.00	4	18
Noiret	1.25	4	18
Montepulciano	1.00	4	16
Chambourcin	0.00	7	19, 20

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We welcome feedback and suggestions. Any responses can be mailed or emailed to the addresses on the left. We will strive to provide useful, pertinent, and timely information.

Initially this newsletter will be published 4 times per year in January, April, July, and October. If warranted the timing can be amended to better serve the grape growers and wine makers of Oklahoma.

'Vigneron' is the French word for someone who grows grapes for use in wine making.

Contracts concluded

This list of principle elements may be much more detailed than needed for many grower/winery relationships. Many successful grape purchases are produced by a handshake and a willingness to trust one another. Oklahoma's wine and grape industries are thriving but still relatively small. In small industries people get to know each other quickly and news travels fast. In many cases, people care about being known for fairness, ease of doing business, and not being too legalistic or litigious. Often the contract between a grower and winery can be simply contained within a few pages. Essentially all of this discussion can be boiled down to two qualities that are present in all successful contracts: trust and respect. If wineries were to trust the grower to produce and deliver grapes of sufficient quality and growers were to trust wineries to fairly compensate them for the effort, a handshake would be all that is required. Most of the time, relationships that are based on trust and respect have been matured over several seasons of hard work in earning that trust. Hopefully the information presented here will provide material for discussions between growers and wine-makers in Oklahoma that will lead to many successful grape purchase contracts in the future.

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