# BC Wine Grape Council Newsletter

**Volume 1, Issue 1 - May, 2007**


# What has been happening

*By Hans Buchler, Chair*

At the February General Meeting the membership of the BC Wine Grape Council elected its first Board of Directors. The Board has since made two appointments to fill all seven available seats.

The directors of the new Board are:

- Hans Buchler, Park Hill Vineyard, Chair
- Robert (Bob) Heiss, Gray Monk Estate Winery, Vice Chair
- Tony Murray, Eventus Vineyards, Finance/Audit Committee
- Randy Picton, Nk'Mip Cellars
- Mark Sheridan, Vincor International
- Corrie Krehbiel, CedarCreek Estate Winery (Appointed)
- Mike Raffan, Township 7 (Appointed)

The outgoing members of the steering committee had devoted a lot of their time and effort to ensure a successful start of the Council. I would like to personally thank David Avery, Bill Eggert, Tony Murray, Gary Strachan, Josie Tyabji, and Tony Kluge for their contributions.

The past season has brought a couple of challenges: First, the discovery of **bois noir** (a phytoplasma disease which is spreading in Europe) has confirmed that there are occasionally some problems with the sanitary status of imported plant material. Plant Quarantine in Sanichton has also tested 34 imported grapevine samples for virus diseases; of these, three were found to be positive for **leafroll virus**. While at this time we do not seem to have a vector for leafroll yet, and there is to date no evidence of it spreading to adjacent plantings, it is just a matter of time before mealybug vectors get established here. While some leafroll infested vineyards have on occasion produced medal winning wines, research in Washington seems to confirm that this is probably more a fluke and that wines from the same vineyards will perform below expectations in subsequent years. The general consensus is that leafroll virus reduces both yield and grape quality.

Both the phytoplasma finding and the virus status of some imported vines clearly indicate that not all is well with the French plant certification system.

We are currently investigating options to develop a domestic repository of clean propagating material. This is not an easy undertaking for such a small industry. First we will have to agree on a short list of desirable cultivars, which will have to be fully virus indexed. Small mother blocks will have to be established (probably in privately owned vineyards). The Canadian Food Inspection Agency (CFIA) is currently consulting with interested parties, to establish a plant certification system.

The **cold snap in late November** may have impacted a number of vineyards and varietals throughout the valley. Reports of considerable damage on Syrah, Sauvignon Blanc, and to a lesser degree on Merlot in the south, and some reports of damage on late harvested, high yielding varietals in the Kelowna area may lead to reduced yields in 2007. It is important not to overstress and over crop plants weakened by cold injury in this season.

Most vineyards affected were not fully dormant at the time the temperature dropped to minus 17°C to minus 20°C, due to delayed harvest and high yield. Another factor may have been the late application of post harvest irrigation, saturating the plant tissue with water and diluting the sugars, which act as antifreeze.

This is the last year of the ***National Water Supply Expansion Program*** (NWSEP). Funding is still available for developing individual wells. The cost share program will contribute up to 1/3 to a maximum of $5,000 for private wells and up to 1/3 for community wells.

This is also the last year of the ***Environmental Farm Plan*** (EFP) program. There is still a fair amount of funding available for irrigation system upgrades, equipment upgrades (sprayers, mechanical weeders, flail mowers, etc.) and spray shed construction. The EFP does also help protect producers from liability suits in case of contamination of the environment. For more information contact EFP coordinator Don Magnuson at 250-762-5226 ext. 24. While we hope that the program will be renewed, there is as of yet no guarantee.

Planning for the 8th Annual Enology & Viticulture Conference scheduled for July 23-24 is well underway. The conference brochure is included with this newsletter. We have some excellent international speakers that will surely provide you with some thought provoking ideas. The Tradeshow will be bigger and better with many new exhibitors.

*(Continued on page 2)*

## Inside this Issue

## What has been happening

The BC Wine Grape Council is in the process of developing a website (www.bcwgc.org), which will include research reports, conference information, an archive of newsletters, and a bulletin board for members. We hope to launch it sometime later this spring.

Wishing you all a good season!

# The Cost of Safety

*By Rose McDonald, WorkSafe BC*

When you own a small winery, it's easy to get caught up in the constant day-to-day demands of producing and selling wine. Sometimes it must seem like safety is just one more task that there's no time for. But Sandra Oldfield of Tinhorn Creek Vineyards of Oliver BC said it all when she said "I can always make another bottle of wine, but I can't make another employee."

Small businesses like wineries can rarely afford the disruption of having a worker off work due to an injury. WorkSafeBC statistics show that small businesses that have fewer injuries stay in business longer. Injuries may be rare in your workplace, but one serious injury can set you back financially for months or years. And that doesn't include the human costs to the injured worker.

How much does an injury really cost? Here's an example. There's a large wine spill, and one of your employees slips, breaking his ankle and hitting his head, suffering a concussion.

**Accident costs**

How long would it take for your winery to make up costs and lost productivity, never mind the human costs?

| | |
|---|---|
| $ 840 | Incident costs, including such costs as time to provide first aid, first aid supplies, transportation to hospital, lost productivity of affected workers, and time to make the work area safe. |
| $ 280 | Investigation costs, including time spent to investigate and complete related paperwork, and follow-up meetings to discuss the accident. |
| $ 150 | Property damage costs, including time to assess damage, repair or replace equipment, and clean up, and costs to dispose of damaged equipment. |
| $ 550 | Replacement costs, including time to hire or relocate replacement worker, trainer time for new worker, and trainee time for replacement worker. |
| $ 710 | Productivity costs, including lost productivity due to work disruption, time spent managing the injury claim, and reduced productivity of the injured worker after he returns to work. |
| $ 2,530 | **Total cost of accident** |

This example was for a relatively minor accident (the costs in this example are based on one employer and five workers, with estimated wage rates of $20/hour for the workers and $30/hour for the employer). Imagine the effect of a spinal cord injury or even worse, a fatality on your winery.

How can you make safety a cost effective part of your business? Here are some tips:

- **Safety First** –Treat safety as part of how you do business, not as an add-on. By setting an expectation that a task should be done once and done right every time, you can achieve safety, productivity and quality all at the same time.
- **Set Example** – Set an example for safe work practices. If you cut corners, so will your workers. By leading the way, you can make safety a part of the work culture in your winery, to everyone's benefit.
- **Promote** –Talk about health and safety with your workers, encourage them to tell you their health and safety concerns, and provide them with feedback on their safety performance.
- **Follow up** – Observe work activity to ensure that safe work practices are being used consistently and correctly, support positive behaviours, and correct unsafe work practices.

A safe work environment is good business. For more information on what you can do to achieve a safe and healthy workplace, visit the Small Business page of the WorkSafeBC website, at http://www2.worksafebc.com/Portals/SmallBusiness/Home.asp.


Get your FREE Confined Space

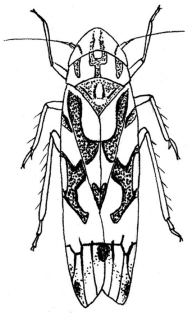
Labels, flowcharts, and reference cards

from WorkSafe BC

Contact Rose McDonald at 604-233-4013
Toll-free at 1-888-621-7233 local 4013
Email smallbiz@worksafebc.com

# Leafhopper Monitoring Program Update

*By D. Thomas Lowery, AAFC-PARC, Summerland*



Due to an increased concern about the possible introduction of phytoplasma diseases, specifically bois noir (BN) and flavescence dorée (FD), in nursery material from Europe, in 2006 the CFIA instituted post-entry monitoring conditions for newly imported grapevines. In addition to inspection of vines and testing by the CFIA for the presence of BN and FD, growers were required to monitor vineyards for the presence of potential leafhopper vectors, including the known vector *Scaphoideus titanus*. This leafhopper, which was accidentally introduced to France from North America in the 1950s, is largely responsible for the recent increase in the incidence of FD throughout Europe.

Rather than monitoring every vineyard planted with new vines from Europe, growers were encouraged to pool their resources and conduct sampling in representative vineyards from defined production areas. Half of the funding to support the program in British Columbia was obtained from a levy on imported grapevines. Hans Buchler successfully obtained matching funds from the Investment Agriculture Foundation. Hugh Philip (BCMAL Kelowna) and I agreed to co-supervise Lauren Bunckle, who was hired to conduct the monitoring.

Leafhoppers were monitored in 21 vineyards divided between four regions: the Similkameen, the east and west sides of the Okanagan valley, from Naramata and Summerland to the U.S. border, and the area north of Summerland to Vernon. Vineyards were monitored weekly from early June until the middle of October. At each location, leafhoppers were captured on yellow sticky cards (6/site), in sweep net samples, and they were aspirated directly off grape vines during visual inspections. Leafhoppers were sorted and counted in the laboratory. Species of interest were then sent to Ottawa to be identified by taxonomic experts with the CFIA and AAFC.

Two leafhoppers of interest, the aster leafhopper, *Macrosteles quadrilineatus*, and *M. laevis* were not captured on yellow sticky traps or in sweep net samples. However, a closely related species, *M. severini*, was captured frequently throughout the Okanagan and Similkameen valleys and also on Vancouver Island. We do not know if this species is able to transmit phytoplasmas, but closely related species are efficient vectors of several diseases, including aster yellows (AY) that we have found infecting grapevines in Ontario. *Macrosteles striifons*, *M. fascifrons*, *M. laevis*, and *M. quadrilineatus* each transmit from three to eight phytoplasmas. It is also likely that *M. severini* was collected from grapevines but was misidentified as the aster leafhopper. In light of these findings, in the coming year Chrystel Olivier (AAFC-Saskatoon) plans to assess the ability of *M. severini* to transmit phytoplasmas to grapevines.

Another common leafhopper collected in 2006 from all regions in British Columbia was *Colladonus geminatus*; a known vector of AY and western X-disease. In addition to this species, we also collected small numbers of *C. flavocapitatus* and *C. montanus* directly from grapevines. Other than the Virginia creeper leafhopper, *Erythroneura ziczac*, and the western grape leafhopper, *E. elegantula*, that are not thought to transmit phytoplasmas, the most common species found on grapes were the purple sharpshooter, *Neokolla confluens,* and *N. heiroglyphica.* We hope to also include these two species in transmission studies, as they are both known vectors of phytoplasmas. *Neokolla confluens* has previously been found feeding on grapes in the Okanagan at densities sufficiently high to require control.

Seventeen specimens of the privet leafhopper, *Fieberiella florii*, a vector of AY, apple proliferation phytoplasma, and western and eastern X-diseases, were collected on traps or in sweep net samples, while one was found feeding on grapes. The most important vector of FD, *Scaphoideus titanus*, was not found in British Columbia in 2006. We also did not capture the suspected BN vector *Aphrodes bicinctus*, even though this species is thought to occur in British Columbia.

In addition to those species that were of interest as possible vectors, we have also collected many other leafhoppers common in the grape-producing areas of south central British Columbia. We hope to have as many of these identified as possible to determine if other potential vectors of phytoplasmas exist in these areas.

The post-entry monitoring programs will continue through 2007 and 2008. By the end of the program we will have obtained valuable information on the distributions and relative densities of many leafhopper species that might transmit phytoplasma diseases of grapevines. Complementary to this program, a team of researchers with AAFC have initiated a comprehensive study of phytoplasma diseases affecting grapevines in Canada. Information collected from the leafhopper monitoring programs in Ontario and British Columbia will make a valuable contribution to this research.

## Tips and Tricks

Overhead irrigation can be an effective tool to avoid frost damage on grape plants in spring and in the fall. There is however a brief period in the spring, when irrigation can do substantial damage to grape buds: when the bud turns fuzzy and begins to unfold, water will infiltrate into the crevices in the bud and, upon freezing, will expand and damage the bud tissue, thereby killing the bud. Water will also disrupt the natural insulation provided by the fuzz.

It is critical to wait until the first leaves are fully unfolded and have reached about a third of their normal size, before applying water during, or shortly before frost events.

*Send your tips & tricks to Louise Corbeil, bcwgc@telus.net*

# Low Fruit Set: Considerations for skin and seed phenolic extraction into wine

*Dr. Kevin Usher, Pacific Agri-Food Research Centre, Summerland BC*

Phenolic extraction (anthocyanins, tannins, gallic acid, etc…) during winemaking is partially dependent on the skin and seed concentration and the proportions of skin, flesh, and seed. These proportions can be manipulated in the vineyard through management practices such as adjusting the crop and irrigation which may alter berry size, cluster size, and crop load. Climate and the environment can also influence these fruit components. The cool, wet spring in 2005 resulted in poor fruit set for many vineyards and reduced grape production throughout the Okanagan Valley. A comparison of 2004 with 2005 Merlot grown on Black Sage Bench showed that fruit grown in 2005 had smaller clusters, 10% smaller berries, with 20% fewer seeds per berry, but the seeds were 50% larger. The smaller berries with larger seeds had a low proportion of flesh. This resulted in a higher proportion of seed and skin relative to must at crush. The level of fruit set and its influence on the skin, seed, and flesh proportions had implications for the amount of must produced per ton of grapes and the potential phenolic extraction in the 2005 vintage.

The skin produces colour (anthocyanins) and tannins which are extracted during fermentation. Since poor fruit set resulted in smaller berries with more skin, we expected higher levels of colour and skin tannins in the wine. In addition to more skin, the anthocyanins concentration was 12.5% higher in 2005. The combination of higher anthocyanin concentration and more skin resulted in significantly higher anthocyanin available for extraction into wine. The tannin concentration in the skin was 20% lower in 2005. The low tannin concentration combined with more skin resulted in 10% less skin tannin per ton of fruit. The poor set and smaller berries in 2005 resulted in more available anthocyanins but less skin tannins.

Seeds contain tannins but do not contain anthocyanins. Seed tannin concentration, seed size, surface area, and seed number are all factors that affect the amount of tannin available for extraction. Poor berry set in 2005 resulted in fruit with 10% smaller berries, 20% fewer seeds, and 50% larger seeds. This resulted in 30% higher seed weight per ton of fruit. Since most seeds are not crushed it is only the surface area that is extracted. Seed surface area per ton of fruit is a function of seed number, size, and shape. Although there were fewer seeds per berry in 2005, they were much larger. This combination resulted in 25% more seed surface area per ton of fruit. The concentration of seed tannins was 10% lower but combined with the higher surface area there was 15% more available seed tannin in 2005.

Seed to skin tannin ratios are important since the mouthfeel properties of skin tannins are softer and smoother than seed tannins. Higher anthocyanin to tannin ratios improve mouthfeel and colour stability. The anthocyanin to tannin (skin and seed) ratio was 6% higher in 2005 due to lower skin tannins and higher skin anthocyanins. The seed to skin tannin ratio was 30% higher and the total tannin content (seed and skin combined) was 20% higher in 2005. The higher tannin content combined with the higher seed to skin tannin ratio in 2005 would have resulted in a greater potential for extraction of seed tannins. With everything else equal, the 2005 grapes had the potential to produce wines with rougher, harder tannins compared to 2004. The higher anthocyanin to tannin ratio in 2005 may have resulted in softer tannins and more colour extraction.

The influence of berry dynamics on anthocyanin and tannin content and the potential for extraction into wine was illustrated by the poor berry set in 2005 compared to 2004. This may be emulated by management practices to manipulate fruit in the vineyard and obtain different skin, seed, and flesh ratios and different anthocyanin and tannin profiles. Our research programs are working toward understanding these relationships to optimize tannin and anthocyanin content to produce high quality wine.

Information in this article is from a study on "Optimum Water Use in Vineyards: Effects of Interactions Between Deficit Irrigation, Vine Physiology, and Disease and Insect Pressure on Fruit Quality in Merlot and Cabernet Sauvignon". The project is led by Pat Bowen (principle investigator) in collaboration with Kevin Usher and Tom Lowery and was funded by the BC Wine Institute (R&D Committee) and Agriculture and Agri-Food Canada.

## Crown Gall Research

Dr. Peter Sholberg and his technician Paula Haag would like to survey and collect samples of grape crown gall in the Okanagan.

If you have noticed the disease in your vineyard and would like to participate, please contact Paula Haag by phone at 250-404-3312 or email haapg@agr.gc.ca.

# FARSHA's New Safety Coordinator for Orchards and Vineyards

Carol Reid started in her role as Safety Coordinator for Orchards and Vineyards in January of this year replacing Brian Nordin, who has taken a position with WorkSafe BC. Carol lives in Kelowna and has previously worked many years for a large food manufacturer which included health and safety responsibilities. Carol's key strengths include high energy, enthusiasm, practical approach, and a sound understanding of the Okanagan's agricultural industry. She also holds a Bachelor of Science in Agriculture from UBC, and served as a Volunteer Fire Fighter, and Training Officer for the Regional District of Central Kelowna.

The *Farm and Ranch Safety and Health Association* (FARSHA) has promoted safety and health in British Columbia farms since 1993. FARSHA provides commodity-specific practical tools free of charge to employers and workers in BC agriculture. It is funded by a levy on assessments paid to WorkSafe BC. Although funded by WorkSafe BC, FARSHA is independent and is not involved in enforcement or other insurance roles.

- Do you have confidence that the safety steps you have taken in your vineyard ensure the health and safety of your employees?
- Did you know that agricultural workplaces in BC fall under the same health and safety laws as other employers?
- Do you comply with the Workers Compensation Act and Occupational Health and Safety Regulations?
- In the event of a serious incident, do you have documentation to show you have taken reasonable steps to ensure necessary training was done and hazards controlled?

Safety programs are not just for the large employers, all farms need some form of health and safety program. FARSHA is in place to help with any or all aspects of a safety program including new worker orientations, first aid assessments, hazard identification, risk assessments, and training of workers. To have your procedures reviewed or to help get you on your way to a safer workplace, call Carol Reid at 250-765-7025 or e-mail carol.reid@farsha.bc.ca.

# Take a Break with...Corrie Krehbiel

Corrie Krehbiel is the winemaker for Greata Ranch's Reserve Winery. Similar to other winemakers at boutique wineries and vineyards, her duties are immensely varied. She monitors vineyards; organizes and completes all lab analysis, blending, and cellar tasks; she prepares budgets, procures equipment, and supplies; and she participates in public relations activities.

In conjunction with Backen Gillam Architects of Napa and Bevanda Architects of Penticton, Corrie is eagerly planning, designing, and equipping a new 5,000-case boutique, gravity-feed winery at Greata Ranch. The new winery will focus on premium Chardonnay, Pinot Noir, Merlot, and Meritage. It will also have as one of its elements an exclusive wine club for which Corrie is developing a viticulture and winemaking program.

Her greatest challenge is that she feels that her wines are almost an extension of who she is. In her eyes, her hard work and passion should be reflected in the wine's makeup. She is apt to be overly critical of their progress. She often finds herself needing to step back and evaluate them as if she were a consumer.

Corrie appreciates that her position brings variety and challenge every day be it in the vineyard, the cellar, or in management. She is excited to be part of the evolution of the wines from vine to bottle. Corrie says, "My work stimulates and challenges me both physically and mentally. Winemaking allows me to show my creative side while using my love for science."

The BC wine-grape industry is beginning an exciting period of change and growth. Corrie is proud to be part of that new growth. "As one of the directors of the BC Wine Grape Council, I hope to help build and strengthen the industry's knowledge of how to produce premium grapes and wine (with minimal environmental impact) through education, and regionally specific and non-specific research", says Corrie. "I would like to see our region recognized locally and internationally as progressive, responsible, and sustainable."

Corrie has also been an active member of the R&D Committee for a few years because she feels that research is essential if British Columbia is to remain competitive in the marketplace. "Research helps all of us improve the quality of our wines and to farm with minimal environmental impact." She believes that "local research allows our industry to determine and evaluate the response and impact of different treatments/trials on our vines, grapes, and wines specific to our soils and climate, without risk to individual producers."

On the personal side, Corrie is getting married in early June to a terrific guy who appreciates that making wine is a strong passion of Corrie's, who supports her during crush, and who always makes her laugh when she is feeling stressed. They have a lovely, affectionate golden retriever named Buddy, and two crazy, obese cats by the name of Simba and Teko. She starts her day with a morning run, "It's a great way to gear up for my day mentally", says Corrie. To relax and forget the day's challenges, Corrie hits balls at the driving range (which often increases her stress), goes for a walk with Buddy, or reads a book with a glass (or two) of wine. Hmm…she is famous for falling asleep within minutes of beginning to read so often can't remember what she's read – is that because of the book or the wine?

In closing, Corrie is proud of her recent successes which are "being promoted to winemaker at Greata Ranch, and being able to consistently hit my golf ball further than my divot."

# 2007 Research Projects

**Cover Crops for the Suppression of Cutworm Damage to Grapevines** – Cutworm larvae are major pests of grapes produced in British Columbia. Insecticides applied to control cutworms reduce populations of beneficial insects, often resulting in higher numbers of secondary pests later in the season. Alternative methods of control are required in order to prevent excessive levels of damage while maintaining numbers of natural enemies. Our earlier studies have shown that stands of winter annual mustards, such as shepherd's purse, *Capsella bursa-pastoris*, growing in vine rows are associated with reduced levels of damage. Shepherd's purse and other spring-flowering plants also enhance numbers of beneficial insects by providing alternate food sources. Mustard cover crops can reduce numbers of some plant-parasitic nematodes and fungal pathogens due to the release of toxic compounds when plant tissues are incorporated into the soil.

This collaborative 3 year study will look at the impact of various mustard and clover groundcovers on pests and diseases of grapes, and will evaluate micro-environmental and nutrient differences between treatments and their effects on vine vigor and fruit quality. Tom Lowery, Pat Bowen, Kevin Usher, Peter Sholberg, Dan O'Gorman and Tom Forge will study appropriate methods to manage cover crops, evaluate species that might be appropriate for the Okanagan, and look at timing of weed management to maximize stands of the small, native *Draba* mustards. The appropriate use of vineyard groundcover vegetation would make an important contribution to the development of a sustainable integrated pest management program for grapes.

The laboratories of Dr. Peter Sholberg and Dan O'Gorman are working on two projects for the BCWGC. The **sour rot identification and management** project is in its final year. The team has made good progress this winter on the identification of the causal agents of sour rot. Three Acetobacter and three yeast species were isolated form BC wine grapes and shown to cause the disease in table grapes. **Characterization and biological control of grape crown gall in British Columbia** is the new project. It will focus on developing a molecular probe for quickly identifying these microorganisms in the vineyard. Trials are planned this summer to study the spread of sour rot and develop methods of controlling this disease using laboratory and vineyard tests. This work will be greatly aided by knowing the identity of the causal agents. Work has been initiated on characterization and biological control of crown gall. Tests are in progress to isolate the bacterium that causes crown gall of grapes in locally grown grape cultivars. Once the causal agent is found and verified to its species a molecular probe will be tested on Okanagan wine grapes. This will lead to laboratory and vineyard tests for control of crown gall.

**Identification and sensory attributes of sulphur compounds in British Columbia's varietal wines** – Wine faults and defects reduce wine quality and decrease a wine's value which may result in a significant cost to the winery. If these problems persist it can damage the reputation of a winery and/or a wine region in national and international markets. Understanding the types of sulphur compounds that are present in BC wines is the first step toward knowing how to manage, control and fix sulphur based wine faults. The proposed study will elucidate the different sulphur compounds present in BC wine, the concentrations at which they become objectionable and how combinations of sulphur compounds at sub-threshold levels interact to cause detectable wine faults. Through this study Kevin Usher, Margaret Cliff, Marjorie King, and Pat Bowen will determine the best procedure for storage of sulphur standards to train judges. This training may be incorporated into VQA and produce valuable feedback for winemakers. Recent interest by the industry to use chemistry to determine if a wine has a sensory fault previously identified by judges has provoked this research to determine if sulphur threshold concentrations can be set and generally applied to different wine varieties. Factors such as wine variety or sulphur combinations that synergistically produce aroma's that are unpredictably potent, are a couple unknown issues that impede the industry from progressing in a logical manner toward chemical based analysis of wine faults.

**Insecticide Efficacy Trial** – During 2006 Tom Lowery and Karen Bedford conducted trials with foliar summer oils and Rynaxypyr for the control of leafhoppers and cutworm, respectively. For the oil trial, they also assessed phytotoxicity based on measures of photosynthetic activity and ripening of fruit. For 2007 they plan to evaluate commercial neem extracts (Azatin) and possibly the insect growth regulator buprofezin (Applaud) for leafhopper control. As for oil and Rynaxypyr, numbers of beneficial insects and mites will also be counted to assess specificity.

Monies from the BCWGC will be used in 2008 to support continued evaluation of insecticides for control of the major pests of grape and to determine their suitability for inclusion in an IPM program. Most of these materials could be used by both organic and conventional growers to help control the major pests of grapes in BC.

**Micro-oxygenation (MOX)** – Beginning in summer 2007, Dr. Sierra Rayne (Principal Investigator) and colleagues at the Pacific Agri-Food Research Centre of Agriculture Canada will embark on a 3-year study into the effects of micro-oxygenation on the sensory properties of red wines. The project is a pioneering effort within the worldwide wine research community, and represents one of the first - and most rigorous - investigations into an emerging winemaking technique.

Micro-oxygenation (MOX) involves the slow introduction of low doses of oxygen into wine following fermentation, and has been used in barrels up to large tanks. The method is commonly employed to mimic the slow oxidation in oak barrels, but without the high costs and microbial risks of oak barrels (oak can still be added to a MOX tank for desirable aromas and flavours), to hasten color development and soften the mouthfeel in young wines, and for removing "green" and "reduced" aromas. Despite its development in Europe during

*(Continued on page 7)*

## What's up at the Council

**Board** – The Board has been meeting regularly. The next Board meeting is scheduled for June 19 (9-Noon)

**Conference Committee** – has been working diligently on the conference agenda. The social BBQ will be on the Monday evening (July 23) at the Ramada Inn in Penticton. Two sensory tastings are planned where participants will experience a range of expressions and complexities of Chardonnay and Pinot Noir from California, Oregon, British Columbia, and South African "terroirs" with *David Stevens (Napa) and Dr. James Kennedy (Oregon)*

**Annual General Meeting** – will be scheduled at the end of the Enology & Viticulture Conference (July 24) to approve the Financial Statements. A notice of meeting will be sent prior to the meeting.

**Health & Safety** – met for the first time since January 16, 2006 on March 28 to review the final draft of the new Health and Safety for Small and Medium Wineries Guide. The Guide will be launched at the Enology & Viticulture Conference in July. The committee will be available to answer questions at the WorkSafeBC booth at the Tradeshow. Why not stop and say hello?

**R & D** – met on May 4. The committee is looking for new committee members. If you would like to get involved please contact Louise at bcwgc@telus.net. The next meeting is September 10.



*(Continued from page 6)*

the early 1990s, very little peer-reviewed open-source literature exists on the technique to help commercial winemakers and researchers guide their efforts. Dr. Rayne's project will focus on what effects MOX has on colour and other optical properties, and herbaceous and thiol aromas, but will also include components that examine whether MOX promotes *Brettanomyces* growth, or can be used to subsequently remove "Brett" and smoky aromas from affected wines. Keys to the study will be the use of the small-lot facility at PARC in collaboration with Drs. Kevin Usher and Pat Bowen, the development of sensory panel with Dr. Margaret Cliff, and laboratory- pilot-, and full-scale studies with participating wineries that provide more certainty and guidance to BC winemakers in the use of this method. Overall, the project aims to deliver a better understanding of varietal and inter-annual variations in the technique, and work towards reducing the risks and costs of MOX implementation.

**The Effects of Irrigation, N Fertilization and Canopy Management on Canopy Performance and Fruit Quality** This research will be conducted by Pat Bowen and her team to determine interactions among environmental conditions (soil and climate), irrigation and N fertilization levels, and canopy management methods that influence wine grape quality. The goal of the research is to determine whether a decline in canopy performance due to stress resulting from water and N deficits delays maturation and reduces fruit quality. The research will be conducted at two or three commercial sites differing in climate and soil texture. Canopy growth and performance (photo-synthesis), and fruit microenvironment will be monitored over the growing season. Yield and its components and fruit compositional quality, including methoxypyrazine, will be determined. Beginning in the second year, small-lot wines will be made from selected treatments and will undergo compositional and sensory analysis. Additional complimentary basic research on leaf and fruit ABA levels, fruit phenolics, and mesoclimate characterization will be conducted under our AAFC-funded program. The results will be used to make site-based recommendations for irrigation, N fertilization and canopy management that will optimize vine vigour and canopy performance.

**The Effects of Hot Water Treatment (HWT) and Pre- and Post-Treatment Handling and Storage Conditions on the Survival and Development of Young Grapevines** Recent experience and research with hot water treatment protocols for imported grapevines have found that handling and storage procedures before and after HWT can influence vine vitality after planting. Pat Bowen' team plans to conduct an experiment using young Merlot and Chardonnay vines on 3309 rootstock that will be subjected to combinations of handling treatments including hydration in storage, pre- and post-HWT acclimation, and post HWT cold storage. There will also be a set on vines without HWT that will undergo some of the same handling treatments for comparison. After treatment, the vines will be planted at the PARC field plots facility and evaluated for budbreak timing, mortality rates, and growth and development for more than a year. The results will be made available to growers and nurseries to clarify what combination of HWT procedures best maintain vitality in young vines.

**Starling Control** In the previous 3 years, a collective starling control pilot project has been conducted in the Okanagan-Similkameen and has involved a partnership with various agencies, including agriculture associations, environmental funding programs and Regional Districts. The focus of the project has been the trapping of starlings, with approximately 50,000 trapped each year. This pilot project has particularly met with success in Keremeos and in parts of Oliver and Osoyoos where a more intensive trapping effort has taken place. The pilot project wrapped up at the end of March 2006. Funds have been set aside for future scientific research that focuses on the population dynamics of starlings.


# News & Views

**Production insurance** – If you suspect that you may have some winter damage in your vineyard and have subscribed to the BC Production Insurance program, you must fill out a claim form and file it with your Production Insurance agent. Failure to do so will void any potential pay out due to you. The BC Production Insurance does not automatically compare your actual yields to your insurance coverage!

**Bud Damage** – There appears to be considerable bud damage (and some cane damage) to some wine grape selections in the Kelowna area. Bud damage is also evident in some wine grape selections in all parts of the Okanagan/Similkameen vineyards. Most wine grapes (Gewürztraminer is an exception) should produce a better crop when the vines are spur pruned (as opposed to cane pruned) because the base buds were likely more mature, however, shoot removal and some added leaf work may be needed during the growing season. – *John Vielvoye*

**Washington State licenses 500th winery** – Washington State has reached the 500-winery mark, consolidating its position as America's No. 2 wine state. The 500th licensed producer is *Sweet Valley Wines* in Walla Walla, in the immense Columbia Valley, east of the Cascade Mountains. The landmark statistic was announced April 25th in Seattle by the Washington Wine Commission, the state-wide trade association. At 500, Washington lags distantly behind California, with 2,275 bonded wineries. Oregon ranks third in the category of major wine states with more than 300, and New York is fourth with more than 210. Washington's modern wine industry dates to 1962, with the beginning of relatively large-scale plantings of vinifera grapes.
The industry "has experienced remarkable growth," the Commission said. "The industry entered the 1980's with fewer than 20 wineries. By 1990, the number grew to 64, and by 2000 to 155." The state has nine American Viticultural Areas (federal appellations). The commission said there are 350 wine-grape growers and 31,000 acres under vines.

**Progress on revising the Provincial Sales Tax (PST) system** – The BC Ag Council met with the Ministry of Provincial Revenue and Finance for an update of the PST consultation process. The Minister is still very interested in changing the PST system to a rebate-based system. Concerns that BCAC heard from several of our member organizations on the need for some zero rated bulk items such as feed, fuel, and fertilizer were raised during the meeting. The Ministry appeared to be willing to give the concept some serious consideration. In the meantime, discussions will continue with member organizations and the provincial government over the next few months. It is hoped that a final detailed proposal will be available this summer and early fall.

**Ministers Meeting** – BC and the BC Ministry of Agriculture is hosting the annual federal provincial territorial Ministers meeting in Whistler from June 26-29, 2007. There are some opportunities to showcase BC agriculture industry and BC food products. The potential opportunities are:

- To provide products and/or information for delegate bags and gift bags that will be provided to Ministers and government representatives from provinces and the federal government.
- On June 27th there will be an afternoon luncheon (1-3.30 pm) at North Arm Farms in Pemberton where there will opportunities to put up industry booths and provide food products for the luncheon.
- Other sponsorship opportunities may be available (e.g. reception, banquets etc.)

For more information contact John Noonan, event coordinator at jvnoonan@telus.net.

*Send your news or views to Louise Corbeil at bcwgc@telus.net*

***BC Wine Grape Council***
PO Box 1218, Peachland, BC V0H 1X0
Phone: 250-767-2534 Fax: 250-767-0094
E-mail: bcwgc@telus.net


The purpose of the *BC Wine Grape Council* is to coordinate, facilitate, and fund research and education on viticulture and enology to broadly benefit the British Columbia wine grape industry and to represent growers on a variety of agriculture related issues. Its Mission Statement is to promote the development of a strong and viable wine grape industry that will result in the production of world class wines and that will enhance the economic and environmental benefits to British Columbia.