



In the Vineyard

DEDICATED TO THE SUCCESS OF ONTARIO'S GRAPE GROWERS

2013-14 GGO Board of Directors:

- Bill George, Chair
- Matthias Oppenlaender, Vice Chair
- Trevor Falk
- Bill Jansenberger
- Debra Marshall
- Jim Morrison
- Steve Pohorly
- Brock Puddicombe
- Bill Schenck
- Kevin Watson



Howard Staff, Marlene Moyer, Linda Lockey



GGO Annual General Meeting April 3, 2013

The 65th Annual General Meeting of the Grape Growers of Ontario was held at Club Roma in St Catharines on Wednesday, April 3, 2013.

Please see page 2 for the members of the 2013-14 Growers' Committee.

In this Issue:

GGO 2013-14 Board of Directors.....	1
Growers' Committee.....	2
Award of Merit.....	2
Media Day: 50% Ontario Market Share by 2020.....	3
Industry Updates.....	4
Growing Forward 2.....	5
Native Plants as Cover Crops....	5
Irrigation Committee.....	6
Upcoming Events.....	6
Classifieds.....	8

Growing Forward 2

The Growing Forward 2 (GF2) Bilateral Agreement has been signed by the federal and Ontario governments to provide agriculture program funding to encourage innovation, competitiveness and market development. Growing Forward 2 offers flexible programs for producer businesses, processor businesses and organizations and collaborations. See Page 5 for dates and location of GF2 information sessions or visit the GGO website at www.grapegrowersofontario.com/node/604



2013-14 Growers Committee

Thank you to all those who ran for election to the Growers' Committee at the GGO's Annual General Meeting. Thank you to Ed Hughes for his past year's contribution to the Committee.

Members of the 2013-14 Growers' Committee:

District 1 – Town of Niagara-on-the-Lake, Niagara Falls

Trevor Falk
Don Forrer
Dave Lambert
Matthias Oppenlaender
Steve Pohorly
Albrecht Seeger
Kevin Watson
Erwin Wiens

District 2 – City of St. Catharines, Pelham, Thorold, Niagara South

Bill Schenck
George Wiley
Terry Yungblut

District 3 - Town of Lincoln

Doug Funk Jr.
Bill George
Ron Koop
Jim Morrison
Martin Schuele
Tom Wiley

District 4 – Town of Grimsby, West Lincoln, Hamilton, Wellington

Art Moyer
Brock Puddicombe

District 5 - Southwestern Ontario, Brant, Chatham-Kent, Essex, Elgin, Haldimand, Lambton, Middlesex, Norfolk, Oxford
Bill Jansenberger

District 6 - Prince Edward County and all other geographic areas
Debra Marshall



Award of Merit - Grape Growers Action Committee

The Grape Growers of Ontario's Award of Merit recognizes outstanding contributions made to the Ontario grape industry. The GGO is pleased to present the ladies of the Grape Growers Action Committee with the 2013 Award of Merit for all of their enthusiasm, hard work, and dedication to the industry.

The Action Committee was formed in the fall of 1976 by the first president – Myra Masterson. In just over a year, the founding members organized approximately 200 ladies from the grape growing community for "The Promotion of Ontario Wine, Grapes and Grape Juice" in response to a grape surplus in 1975 and 1976.

The committee set two goals: The first and most immediate was the sale of the season's crop. Secondly, and more long term, was to promote the Ontario grape industry, embracing all products including grape jelly and jam, juice and Ontario wines. The Grape Growers Action Committee was active until the early 1990's with wine gardens and tastings, a school grape juice program, and other promotions.



L to R: Bill George, GGO Chair; Linda Lockey; Margaret Byl; Cate Mee; Helga Froese; Molly Tancock; Jean Tancock; Lena Byl; Nellie Keeler; Matthias Oppenlaender, GGO

50% Ontario Market Share by 2020

Grape Growers call on government and partners to set a firm target and establish concrete plans to capture 50% of the wine market in Ontario by 2020

In setting a realistic new target for growth of 50% market share by 2020, Grape Growers of Ontario used their Annual Media Day to say that it doesn't matter if the glass is half-full or half-empty, as long as the wine in it is made in Ontario.



WHICH WINE GLASS WOULD YOU PREFER?

US TOO.

OUR GOAL: Capture 50% of the Ontario wine market by 2020

 **Grape Growers of ONTARIO**

 **GRAPEGROWERSOFONTARIO**  **@GRAPEGROWERSONT**

"We think it is important that we set and achieve a goal to have half of the wine purchased in Ontario be Ontario wine," said Bill George, Chair of the Grape Growers of Ontario. "Ontario produces so many great and award winning wines, there is no reason 62% of wine sales in the province should still be imported from other countries," George added.

Today VQA wine sales, which include 100% Ontario grapes, account for 9.5% of all wine sold in Ontario. When these sales are combined with the International Canadian Blends (ICB), which include at least 25% Ontario grapes, Ontario wines make up just 38.3% market share.



Bill George, Chair, Grape Growers of Ontario

Ontario's grape growers are calling on their industry partners, the LCBO, and the provincial government, to set a firm target to capture 50% of the Ontario wine market by 2020 and then to back that goal up with a real plan to achieve its success.

"We are local growers, so it's only natural that local growth be our priority," George added.

Debbie Zimmerman, CEO, Grape Growers of Ontario, reported that Ontario's wine industry has plenty of reasons to be optimistic about the year ahead.

"We are coming off of a record harvest both in size and quality; 2012 is a stellar vintage for Ontario wines. We will also see the LCBO come forward with its plans for new VQA Boutique and Express stores. All this, at the same time as there is a global wine shortage should help ensure Ontario wines are front and centre," Zimmerman said.

Last year Ontario grape growers produced a record harvest of 66,014 tonnes. Growers continue to build momentum with exceptional grape quality.

Zimmerman noted, "the only way our industry will maintain its momentum and continue to be a strong economic driver is for Ontario wines to replace French, Californian, Australian, Chilean and Italian wines in the shopping carts of Ontario consumers. Ontario grape growers are committed to working with our partners to make that a reality."



Industry Updates

Ministry of Labour

The Ministry of Labour provided an overview of the Health and Safety Regulations, as well the Employment Standards Act (2000), for wineries and growers at the 2013 Ontario Fruit and Vegetable Growers' Convention. Full presentations are found at: www.grapegrowersofontario.com/education

Tire tax

A new fee structure for tire taxes came into effect in Ontario on April 1st. Previously, taxes were assessed according to tire use; the new staggered fee is based on tire weight, which will result in significant cost increases for agricultural tires. The fees are to be used to safely dispose of used tires going forward as well as clean up existing piles of discarded tires.

BC Liquor Laws Get Overhauled

On February 8th, Minister Rich Coleman announced several changes that will help support local breweries and distilleries, create new business opportunities, and revise current liquor laws in BC, including:

- On-site consumption areas
- Three licenced off-site establishments
- 100% Product of BC eligible for mark-up exempt direct sales
- Wine stores will become licencees under the Liquor Control and Licencing Act
- Increases to liquor-primary capacity will now require gov't input.



Grape Tracker

<https://www.grapetracker.com/>

Grape Tracker is a secure, confidential on-line record keeping system to use to track your sprays, keep a history for your management purposes, and prepare spray records for your buyers!

Grape Tracker provides access to Publication 360 pest treatments and spray labels. Reports can be saved in pdf or excel format and emailed to your winery or advisors.

Please contact Nick Lemieux to obtain your login user name and password.

We welcome your feedback and suggestions for additional features to help make Grape Tracker an even more useful management tool.

905 688-0990 ext 228
nlemieux@grapegrowersofontario.com

OMAFRA Info Sheets

Please visit the Resources section of the Grape Growers of Ontario's website for updated OMAFRA Info Sheets on:

- Rotation of grape fungicides for effective resistance management
- Changes to Grape Pesticides, 2013
- Fungal disease management in grapes throughout the growing season, 2013
- Grape insect and mite management throughout the growing season, 2013

Publication 360

The supplement of Publication 360 is now available online at:

<http://www.omafra.gov.on.ca/english/crops/pub360/sup/pub360sup.pdf>

11th Annual National Minor Use Priority Setting Workshop

Reports on the 11th Annual National Minor Use Priority Setting Workshop by Jim Chaput and Wayne Roberts can be found on the GGO website at: www.grapegrowersofontario.com/node/603

AAFC Weather Survey

Growers are invited to participate in an online survey about the use and value of Agriculture and Agri-Food (AAFC) and non-AAFC climate/weather information products. Climate/weather information products may include weather forecasts, national, regional, and/or local information on precipitation, temperatures, historical weather data, etc. Examples of these products include Environment Canada's website, Agriculture and Agri-Food Canada's Drought Watch, Alberta's AgroClimatic Information Service (ACIS), etc. <http://www.pra.ca/en/survey/AAFC/83322533>

Environmental Performance of Canada's Horticulture Value Chain

Industry members of the Energy Environment Working Group (EEWG) with cooperation from AAFC have developed a survey on the Environmental Performance of Canada's Horticulture Value Chain. Through this survey, valuable information will be gathered to establish a baseline of the environmental performance of the sector's ability to remain competitive in responding to new regulatory and market-based environmental requirements. <https://www.surveymonkey.com/s/7PL5ZGS>

Growing Forward 2 Programs

Growing Forward 2 offers flexible programs for producer businesses, processor businesses and organizations and collaborations. These programs are moving to a “merit based” funding and are more individualized for each business than previous programs. Attend an Information Session to learn how to take full advantage of the funding opportunities.

Information Sessions offered by the Ontario Ministry of Agriculture and Food (OMAF) and Ontario Soil & Crop Improvement Association (OSCIA) will provide program details, requirements to access funding, and future intake dates. OMAF has notified the GGO that they are currently re-scheduling the information sessions from the original dates that they had posted. The new dates and locations for the Information Sessions will be available at the following site once they have been finalized. For registration and details for OMAF/OSCIA Information Sessions, go to: www.registration.wildapricot.org

More program details will be forthcoming at GGO held workshops being planned for May in each of the grape growing areas.

GF2 Client Portal provides a new approach to register once, in order to access the full menu of programs and track submitted applications. To enrol for Growing Forward 2 go to: <https://www.ontarioprograms.net>

Key Dates:

May - GGO Information sessions
June 2013 - Launch funding assistance for skills development and training, planning and assessment.
September 2013 - Launch applications for funding assistance for all client groups.

The following **Educational workshops** will be provided by the Ministry of Agriculture and Food and their delivery partners at no charge to participants:

Environmental Farm Plan
Food Safety Assessment

Growing Your Farm Profits Workshop
Traceability

PROFIT
Biosecurity

Funding will also be available for skills development, training and planning.

Follow this link to more Growing Forward 2 program information:

<http://www.grapegrowersofontario.com/node/604>

Using Niagara Native Plants as Cover Crops in Vineyards Reduces Costs

With \$28,400 in funding from the Farm Innovative Program (FIP), the Grape Growers of Ontario led a study to determine environmentally sustainable vineyard management techniques that could improve grape quality and vineyard sustainability.

The first objective was to create an effective biocontrol system for Niagara vineyards by evaluating the use of a high-density planting of perennial native Niagara flowering plants and low input grasses. The second objective was to establish a no-till soil management system including native plants and low maintenance turf covers. The system could improve soil quality, help control grape vine vigour, and help address/improve water management issues that occur in Niagara vineyards.

Results indicate that biocontrols do have an effect on insect population, however, the seasonal variations from year to year also affect how well biocontrols work. An important note from the study is that insecticides and miticides did not become necessary during the trial and this can be positive both environmentally and economically for the industry. The no-till soil management strategy demonstrated definite improvements in some areas and no ill effects in others with respect to soil quality. The cost of managing a perennial no-till system is less than conventional annual covers with cultivation.

This project was funded in part through Growing Forward, a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists in the delivery of several Growing Forward programs in Ontario.



Irrigation Update

An Irrigation Committee was formed between GGO and Ontario Tender Fruit Producers' Marketing Board as a result of 2012's drought conditions. The objective of the Committee is to develop a pilot project proposal in order to apply for potential government assistance to improve access to water for agricultural irrigation.

As a first step, an irrigation survey, to obtain baseline information on current irrigation use, was conducted at the Ontario Fruit and Vegetable Growers' Convention in February with a chance to win an iPad to those growers completing the survey. More information will be provided in the coming months.

Debbie Zimmerman, CEO with St Catharines grape grower Tony Molek, lucky winner of the iPad



Please join Margot, Janet and Heather Ritchie in a

Celebration of the Lives of Barbara & Ann Ritchie

Sunday, April 21, 2013

3:00—6:00 pm

The Toronto Hunt Club
1355 Kingston Road, Toronto



Many in the industry will know Barbara as a wine journalist, as was her twin Ann.

RSVP is requested: Margot or Heather
barhm@sympatico.ca

Upcoming Events

Wineries of Niagara-on-the-Lake "Wine and Herb Touring Pass Event"

Fridays, Saturdays and Sundays in May 2013

11 am—5 pm

<http://wineriesofniagaraonthelake.com/wine-and-herb>

Niagara Grape and Wine New Vintage Festival

Saturday, June 22, 2013 at Fielding Estate Winery, home of the Grape King, Curtis Fielding

www.niagarawinefestival.com/news/102/tailgate_party



Riesling Experience

Tuesday June 11 and Wednesday June 12, 2013

Day 1 – June 11th held at Brock University

Experience Riesling with Terry Acree, renowned flavour chemist from Cornell University

Transformation of Riesling with Nik Weis, St Urbans-Hof Family Estate Winery, Germany

Evolution of Changing Wine Trends in the Buying and Enjoy-

ment of Riesling with Kathy Cannon, Director of Wines and Vintages for the LCBO

Day 2 – June 12th – **Listen, learn and discuss Riesling's Triumphs and Tribulations.**

Guided bus tours showcasing vineyard practices and wine tastings of some of the oldest Riesling vineyards in Niagara-on-the-Lake.

Register today, space is limited. www.rieslingexperience.com/register

Grapes worth celebrating

PURE PROTECTION LEADS TO PURE PERFECTION



PureSpray™ GREEN Spray Oil 13E. Protection at its purest - CAS# 8042-47-5

Introducing PureSpray GREEN Spray Oil 13E, from the largest producer of white oils. It's proof that not all spray oils are created equal. It is an innovative isoparaffin oil that offers the highest purity levels on the market with CAS# 8042-47-5. This means it's formulated with 99.9% pure isoparaffin base oils and is guaranteed to be free of aromatics, which harm the food chain. And since it's suitable for organic production, both organic and traditional growers can benefit from its many strengths.

PureSpray GREEN Spray Oil 13E effectively protects your high value grape crop by quickly controlling pests and disease, and providing extended protection within your IPM program. All without any

resistance, phytotoxicity or burning issues, when used as directed. So use it early to avoid the need for traditional toxic chemicals later.

As many pesticides are being delisted, your choices are limited and becoming more so every day. So when you have a choice to make, be sure to choose the purest - PureSpray GREEN Spray Oil 13E. It's an effective choice with unlimited possibilities. For more product information visit www.purespraygreen.com/grapes.



™Trademark of Suncor Energy Inc. Used under licence.

Classified

 -full listings are found at <http://www.grapegrowersofontario.com/buy-or-sell>

For Sale	Contact	Telephone
<ul style="list-style-type: none"> 10 rolls of high tensile wire, 22lb, \$8 each. 100 Steel posts 8', \$3 each. 	Bob	905-563-5193
<ul style="list-style-type: none"> Mobile home farm trailer, 12' x 40'. 3 bedrooms, 1 full bathroom, oil heating, washer dryer. \$7000 	Alex	905-328-1719
<ul style="list-style-type: none"> 6 foot K-shaped grape disc with 20 inch blades 	Lou	905-358-9214
<ul style="list-style-type: none"> Bought new from Criveller in 2010, a Jolly 20, 120 volt. 950.00 OBO. 	Mike	mkorpan@ciaccess.com
<ul style="list-style-type: none"> 1 stainless steel bin, \$750 	Joseph	289-544-0024
<p>Pneumatic Membrane Press Enoveneta PP26 (26hl) Closed Press Purchased in 2004 from Criveller, used for 9 vintages by one owner. All stainless steel. Motor driven wheels for easy movability. Sliding, locking juice pan. 12 Press cycles, 6 are customized and easily programmable. Axial end valve for easy loading of crushed/destemmed fruit. Double manual doors for loading whole-cluster fruit. Juice level sensor for automatic on/off control of pump. 3-phase, CSA approved. Rated for a maximum capacity of: 6.0 tonnes crushed/destemmed; or 1.9 tonnes whole-cluster; or 9 tonnes fermented mass. In very good condition to make premium wines. Asking \$29,500 or best offer.</p>	Richie	905-984-0046 or richie@fieldingwines.com
<p>4.5 acre vineyard for rent consisting of Cabernet Franc, Gewurztraminer, Chardonnay and Sauvignon Blanc. The vineyard is located on the Beamsville bench, adjacent Fielding Estate Winery. All details negotiable.</p>	Mike	1-800-294-5592 or by email at mzuzek@ican.net
Job Opportunities		
<p>Vineyard Manager for 70 acre site Responsible for Labour/Equipment and overall Management Resumes may be faxed to Or email Only those chosen for an interview will be contacted</p>		Fax: 905-984-2572 kmoyer@xplornet.com
Wanted		
<ul style="list-style-type: none"> 2-3 tonne press 	John	613-399-1361
<ul style="list-style-type: none"> Grapes from classes 2, 3, and 7 		gfollegot@vinotecawinery.ca or ffollegot@vinotecawinery.ca

- | | | |
|-----------------------------------|-------------------------------------|--|
| • Grape Pricing & Promotion | • Government Lobbying | • Nutrient Management |
| • Grape Research | • Government Policies & Regulations | • Crop Insurance Requirements |
| • Grape Inspection | • Farm Labour Legislation & Program | • Business Risk Management |
| • Government & Industry Relations | • Chemical Registration | • Weather INnovations Incorporated (WIN) |

The Tender Fruit Grape Vine

VOLUME 17, ISSUE 4

MARCH/APRIL 2013

Spring has sprung: Preparing for the upcoming season

Kathryn Carter, Tender Fruit and Grape Specialist, OMAF and MRA

It has been a long cold winter, and as the grape vines start to de-acclimate it is time to start thinking about the long list of things that needs to be done for the upcoming season.

When is it too late to finish dormant pruning and tying? The goal is to finish pruning and tying the vines before the buds begin to swell. Once the buds begin to swell and the shoots have started coming out manipulation of the vine and shoots can knock off shoots resulting in yield reductions.

When should the vines be unburied? Once buds start to swell, they become more susceptible to cold than when they are dormant. If temperatures begin to increase and budburst begins while the vines are buried, bacteria will infect the buds resulting in reduced yields.

When should de-hilling start? De-hilling of the vines in the spring occurs after the threat of extreme weather, and **before** the application of pre-emergence herbicides.

What should I be doing with my sprayer to ensure it is getting good coverage and protecting my crop? At the beginning of each season it is important to tune up your sprayer and ensure that it is calibrated to ensure good coverage. For more information on sprayer maintenance in the spring refer to Airblast Sprayer Start-up Tips.

When should you check buds for winter survival? As those of you who have been monitoring the CCOVI bud hardiness website (<http://www.ccovi.ca/vine-alert/bud-survival>) know, the grape vines are slowly starting to de-acclimate in preparation for bud burst. Bud survival can be assessed by cutting buds laterally and looking for green tissue (a sign of live buds). Each grape bud nodule contains three buds, primary, secondary and tertiary. The primary and secondary buds produce fruit, with the secondary buds produce smaller and less fruitful bunches. The tertiary buds which are the most cold tolerant produce only leaves. Check bud survival in the late spring when pruning begins and use these assessments to make adjustments when pruning. Varieties that were pruned early and extra canes or buds were left as insurance can be re-pruned to remove extra buds in late spring. It won't be clear how much winter damage occurred until the buds start growing. Examples of live and dead grape buds can be found at: <http://www.colostate.edu/programs/wcrc/pubs/viticulture/EvaluatingBudDamage.pdf>.

What are some tips on using my wind machine to protect my crop from frost?

The CCOVI vine alert website will continue to provide growers with information about the vulnerability of the crop to cold temperatures and frost. Some useful tips on best management practices with wind machines can be found at the following websites:

<http://www.omafra.gov.on.ca/english/engineer/facts/10-045.pdf>

<http://www.omafra.gov.on.ca/english/crops/hort/news/tenderfr/tf1604a5.htm>

When should shoot removal be done? Shoot thinning is carried out in the spring when the new shoots have reached a length of approx. 10 to 30cm. While shoot removal is not essential, the canopy can become dense, increasing the potential for disease and making it a challenge to get good spray coverage. Shoot thinning can help to reduce crowding. The drawback to shoot thinning is that it causes more lateral shoots to grow on the remaining shoots because

Con't on pg 3



IN THIS ISSUE...

- Grape insect and mite management
- Fungal disease management in grapes
- What you told us about bird control in your vineyards
- Update on grapevine cold hardiness and bud survival
- Airblast sprayer start-up tips

COMING EVENTS

The Tender Fruit Grape Vine is brought to you by the following staff of the Ontario Ministry of Agriculture and Food and the Ministry of Rural Affairs:

Kathryn Carter, Editor
Tender Fruit & Grape Specialist
905-562-1639

Wendy McFadden-Smith
Tender Fruit & Grape IPM Specialist
905-562-3833

Kristen Callow
Weed Management Program Lead (Hort)
519-738-1232

Dr. Jennifer DeEll
Fresh Market Quality Program Lead
519-426-1408

Hugh Fraser, Engineer
Horticultural Crop Structures & Equipment
905-562-1618

Rebecca Shortt, Engineer
Irrigation/Water Management
519-426-4920

ALL QUERIES, COMMENTS,
QUESTIONS AND REQUESTS CAN BE
DIRECTED TO THE ABOVE.

For a complete list of Agricultural
Development Branch Staff visit the
OMAF and MRA web site at:
www.ontario.ca/crops

April 18, **NSFGA Stone Fruit Pruning Systems Workshop**, Kentville, Nova Scotia. For more information visit: <http://www.nsapples.com/>

July 16-17, **IDFTA Summer Tour**, Gettysburg, Pennsylvania

Sept 10-12, **Canada's Outdoor Farm Show**, Woodstock

Sept 17-21, **100th Anniversary International Plowing Match and Rural Expo**, Perth County

Dec 10-12, **Great Lakes Fruit, Vegetable and Farm Market Expo**, Grand Rapids, Michigan

2013 Supplement to Publication 360, Guide to Fruit Production

The new 2013 Supplement to Publication 360, Guide to Fruit Production, is now available from your local OMAF and MRA Resource Centres and ServiceOntario.

This supplement is also available online in pdf format at:
<http://www.omafra.gov.on.ca/english/crops/pub360/sup/pub360sup.pdf>

The full version of Publication 360, Guide to Fruit Production, can be found online at:
<http://www.omafra.gov.on.ca/english/crops/pub360/p360toc.htm>

Subscribe on-line to view the full coloured newsletter (in pdf format) or to receive notice by email when a new issue of the Tender Fruit Grape Vine is posted. All you need to do is submit your email address at <http://www.omafra.gov.on.ca/english/subscribe/index.html>

Weather Information

Location	Maximum °C		Minimum °C		Precipitation (mm)	
	Feb	March	Feb	March	Feb	March
Vineland (85 yr ave)	8.5 11 th	17.4 10 th	-15.4 10 th	-6.7 21 st	48.1	7.6
Harrow*	6.7 11 th	15.8 10 th	-15.3 6 th	-8.2 21 st	66.9	3.6
Simcoe						

* = The values displayed for March are based on incomplete data from Environment Canada

they get more light. However, the additional lateral shoots occur mostly above the clusters. During thinning remove all water shoots (unwanted shoots arising from the old fibrous wood of the trunk) unless they are needed for the development of the vine structure. Also remove any other infertile shoots without visible inflorescences, which emerge from the pruned fruiting cane. However, at least one near-stem new shoot must remain at each shoot position for the following winter pruning. If there are two or several shoots growing from one bud, the strongest one (with inflorescences) is retained, all others are removed. Shoots are removed by being rubbed off by applying some lateral pressure, or grasped at their base and pulled off. If necessary, shoot thinning can still be carried out in summer, however, the shoots are then usually cut off with a sharp knife instead of pulled off, due to the beginning lignification.

When should flower cluster thinning be done? Flower cluster thinning (or removal of clusters) can be done at any time during the season, but the timing of when it is done has different affects. Flower cluster thinning is often performed prior to or during bloom. The benefits of doing it at this time is that it can be done quickly because it is easy to see the flowers, since the canopy is still developing. The early timing means it can be done at the same time as shoot thinning, reducing labour costs. Flower cluster thinning early enhances berry set in the remaining clusters, and reduces competition between the flowers resulting in increased berry size and weight at harvest in most varieties. In varieties with cluster weights less than 150 g, often yield compensation is insufficient to overcome the reduction in cluster numbers and cluster thinning does not increase yields in these varieties (ie. Gewurztraminer, Pinot noir, and Riesling) and their yields may even decrease. Benefits of flower cluster thinning include increased fruit soluble solids, flavour compounds, anthocyanins (colour) and possibly wine quality. The downside of flower cluster thinning is that the clusters can get tighter, causing issues with bunch rot. Thinning at this time can stimulate vine vigour resulting increased canopy shade, causing high titratable acidity.

Grape insect and mite management throughout the growing season, 2013

Wendy McFadden-Smith, Tender Fruit and Grape IPM Specialist, OMAF and MRA

The following table (on pg 4) was developed as a means of summarizing the information provided in OMAFRA Publication 360 – Fruit Production Recommendations 2012-13, including new products for 2013. It highlights the periods during the growing season when specific insects/mites may be a problem and which insecticides are recommended at a particular growth stage.

The main purpose of this table is to give some idea of the insecticides that may be used throughout the season to manage specific insects present in your vineyard. However, this table is not meant as method of indicating compatibility of products in a spray mixture. You should read the label to determine whether an insecticide will cause injury (e.g. burning or discoloration) on a particular variety or under specific drying conditions and also whether specific tank mixes are not recommended. (See Table 6-5 Publication 360 as well as fungicide labels.). It is also important that **you confirm that a particular fungicide is acceptable for use by your processor and follow their pre-harvest intervals** for individual pesticides

How to use this table: The table is broken down by growth stage and within each growth stage the diseases that may be present are listed.

Large bold + = registered use but not necessarily recommended for this timing

Large bold Shaded cells = OMAF recommended use pattern for registered uses for products

Small + = collateral control; uses not registered but listed based on efficacy listed in various publications and reports from research trials

? = not confirmed in grapes; + = suppression; ++ = moderate control; +++ excellent control

The products are grouped by insecticide family in the columns and products with the same shading belong to the same family. For example, Ambush, PermUP and Pounce all contain the same active ingredients; Admire, Assail and Clutch are all neonicotinoid insecticides. Products containing the same active ingredient are in one cell (eg. Ambush and Perm-Up).

For resistance management for grape berry moth, use the same chemical family for each generation then rotate to a different chemical family.

Growth Stage	Pest	Imidan 50WP (1B)	Malathion (1B)	Ambush Perm-Up (3)	Pounce Up-Cycle (3)	Ripcord (3)	Pyganic (3)	Admire (4)	Assail (4)	Clutch (4)	Delegate (5)	Entrust Success (5)	Agri-Mek (6)	Dipel Bioprotec CAF (11)	Nexter (21)	Envidor (23)	Movento 240 SC (23)	Acramite (25)	Altaeor (28)	Surround WP (U)	Purespray Green Spray oil (U)	Isomate GBM	sulphurs
Dormant – budbreak	Flea beetle				+++																		
	Cutworm				+++														+++				
	ERM																				+++		
1-5 leaves	Flea beetle				+++																		
	Cutworm				+++														+++				
	ERM																				+++		
20-25 cm shoot growth	1 st generation GBM																					+++	
	Phylloxera								+++++								+++						
	Erineum mite																						++
Immediate pre-bloom	Japanese beetle			++			+	+++	+++	+++									++	+			
	Leafhoppers			++			+++++	+++++	+++++	+++++										++	?		
	Phylloxera							+++	+++++	+++++							+++						
	Erineum mite																						++
Immediate post-bloom	Leafhoppers			++			+++++	+++++	+++++											++	?		
	Japanese beetle			++				+++	+++	+++											+		
Fruit set to pea-size berry	2 nd generation GBM	+		+++++					+	*	+++++			++					+++				
	Japanese beetle	++		++	++				+++	+++									++	+			
	Phylloxera								+++	+++							+++						
Berry touch	ERM											+++		+++++	+++++	+++				+++			
	Erineum mite											+		+	+++								++
Veraison to early Sept.	3 rd generation GBM			+++++			++				+++++		++						+++				
	ERM											+++		+++++	+++++	+++				+++			
Pre-harvest	4 th generation GBM		++	+++++							+++++		++						+++				
	MALB		+++			+++																	
	Wasps		+++			+++																	
Max # apps/yr		3	1	3	3	2	3	2	2	2	2	2	2	6	1	1		1	2			1	

* at labelled rate

Fungal disease management in grapes throughout the growing season, 2013

Wendy McFadden-Smith, Tender Fruit & Grape IPM Specialist, OMAF and MRA

The following table (on pg 6 & 7) was developed as a means of summarizing the information provided in OMAF and MRA Publication 360, Guide to Fruit Production 2012-13, including new products for 2013. It highlights the periods during the growing season when specific diseases may be a problem and which fungicides are recommended at a particular growth stage. This will vary somewhat depending on the susceptibility of the grape variety, the weather conditions and the history of disease in the vineyard.

The main purpose of this table is to give some idea of the fungicide combinations/mixtures that may be used throughout the season to manage specific diseases present in your vineyard. However, this table is not meant as method of indicating compatibility of products in a spray mixture. You should read the label to determine whether a fungicide will cause injury (e.g. burning or discoloration) on a particular variety or under specific drying conditions and also whether specific tank mixes are not recommended. (See Table 6-5 Publication 360 as well as fungicide labels.). It is also important that **you confirm that a particular fungicide is acceptable for use by your processor and follow their pre-harvest intervals** for individual pesticides

How to use this table: The table is broken down by growth stage and within each growth stage the diseases that may be present are listed.

- If a disease is **shaded**, it is of primary concern at that growth stage. For example, at 80% bloom to immediate post-bloom, powdery and downy mildew and black rot can infect the berries (and leaves) while Botrytis is a risk only in susceptible varieties. At berry touch, powdery and downy mildew should still be controlled on the foliage but Botrytis infection of fruit is of special concern at this stage. Early season diseases such as anthracnose are of concern only in vineyards where there is a history of the disease.

Large bold + = registered use but not necessarily recommended for this timing

Large bold shaded cells = OMAF recommended use pattern for registered uses for products

Small + = collateral control; uses not registered but listed based on efficacy listed in various publications and reports from research trials

+ = suppression; ++ = moderate control; +++ excellent control

While several of the fungicides are labeled for use throughout the season and are listed throughout the calendar in Publication 360, in the table below they are recommended at specific growth stages. For example Inspire, Pristine, Cantus, Revus, Presidio, Acrobat, Zampro, Vivando and Quintec are recommended specifically during the period when fruit are susceptible to powdery and downy mildew and black rot, that is, as soon as the first caps fall until berry touch. These products are our “big guns” and should be used to keep the fruit disease-free. It is also important to be sure to maintain tight spray intervals during this time to ensure that the berries are protected. From berry touch through August, it is important to keep the foliage healthy to optimize fruit ripening and wood maturity and keep overwintering fungus to a minimum.

The growth stages listed are a guide. Generally, you should keep a 7-day interval between sprays from your first spray until berry touch. New growth will not be protected from infection if you stretch beyond this interval. Once the period for fruit infection is past, you can usually stretch spray intervals to 2 week intervals.

While powdery mildew resistance to Nova, Flint and Sovran has not yet been identified in Ontario, it is well-established in many vineyards in the northeastern US and Ontario powdery mildew populations have most likely shifted toward resistance. When a population is shifted, and conditions for disease development are optimal, control failures can be spectacular, resulting in major losses. This occurred in some New York vineyards several years ago. For this reason, Nova, Flint and Sovran are not highlighted for the immediate pre-bloom through fruit set to pea-sized berry.

In order to reduce the probability of resistance development, do not use any of the site-specific fungicides (anything that isn't a “M” group) once disease symptoms are present. Do not use the same chemical family in back-to-back sprays. Co-formulations containing more than one chemical group are becoming more common. This must be considered when making product selections in order to optimize resistance management and prolong the life of these products. Refer to the next article, *Fungicide Rotation Strategies*, for more information.

PureSpray Green Spray Oil has not been tested on all varieties so try it on a small area in the vineyard before widespread use. It should not be sprayed with 14 days (before or after) a captan/Maestro application to avoid injury. It will remove the waxy bloom on fruit so it is not recommended for use on table grapes. Brix suppression has been noted when applied more than once after berry touch.

In the past, we have recommended sulphur for powdery mildew control after the critical fruit susceptibility period. However, Dr. Gavin Sacks of Cornell University determined that sulphur residues were significant in juice from grapes sprayed less than 6 weeks pre-harvest. These residues resulted in elevated hydrogen sulphide in wines giving the rotten egg smell. In whites, this can be rectified by allowing the juice to settle as residues remain in the sediment. The impact on reds is currently being investigated by Sacks' team. To err on the safe side, avoid the application of sulphur fungicides within 6 weeks of harvest. If you want to keep foliage disease free during this period, use a multi-site fungicide such as Pristine or Luna Tranquility plus a product for downy mildew if it's a problem.

Table note: As this table is very large to accommodate all diseases and fungicides it has been spread across two pages. In order to read the table effectively, please print off pages 6 and 7 and tape the two edges of the table together.

Growth Stage	Diseases	Lime Sulphur	captan \Maestro (M)	Folpan (M)	Polyram (M)	Ferbam (M)	Manzate 200WP/Perincozeb (M)	coppers (M)	Revus (40)	Acrobat (40)	Zampro (40 + 45)	Ridomil Gold Mz (4 + M)	Phostrol (33)	Presidio (43) in tank mix	Nova (3)	Inspire (3)
Dormant	Anthracnose	++														
	Phomopsis	+														
1-3 leaves	Phomopsis		+++	+++												
	Anthracnose		++	++												
3-5 leaves	Phomopsis		+++	+++	+	+	+									
	Anthracnose		+	+	+	+	+								+++	+++
	P mildew															+++
	Black rot		+	+	++	++	++								+++	+++
20-25 cm shoot growth	Phomopsis		+++	+++	+	+	+									
	Anthracnose		+		+	+	+								+++	
	P mildew							+							+++	+++
	Black rot		+	+	++	++	++								+++	+++
	D mildew		+++	++	++	+	++	++	+++	+++	+++	+++	+++	+++		
Immediate pre-bloom to trace bloom (first cap fall)	P mildew							+							+++	+++
	Black rot		+		++	++	++								+++	+++
	D mildew		++	++	++		++	++	+++	+++	+++	+++	+++	+++		
80% bloom to immediate post-bloom	P mildew							+							+++	+++
	Black rot		+	+	++		++	+							+++	+++
	D mildew		+++	++	++		++	++	+++	+++	+++	+++	+++	+++		
	Botrytis															
Fruit set to pea-size berry	P mildew							+							+++	+++
	Black rot			+	++			+							+++	+++
	D mildew		++	++	++		++	++	+++	+++	+++	+++	+++	+++		
Berry touch	P mildew							+							+++	+++
	D mildew		++	++	++		++	++	+++	+++	+++	+++	+++	+++		
	Botrytis															
Veraison to early Sept.	P mildew foliage							+							+++	+++
	D mildew foliage		++	++	++		++	++	+++	+++	+++		+++	+++		
	Botrytis															
Early Sept. to harvest	Botrytis															

Con't on pg 7

What you told us about bird control in your vineyards

Hugh W. Fraser, Agricultural Engineer, OMAF and MRA

This winter the Grape Growers of Ontario organized workshops on bird control in vineyards in Kingsville, St. Catharines and Bloomfield.

During the workshop OMAF conducted surveys using *I-Clicker* technology, which wirelessly records answers to questions put to participants. In a confidential manner, both participants and workshop leaders learn more about the group's dynamics. Although 65 people attended the workshops, only one person from each operation was asked to respond. Forty nine (49) operations were thus surveyed. Here are some results:

Growers ranged in size from under 25 acres (40% of participants) to those over 200 acres. As many as 3000 acres of vineyards were represented by participants, or 20% of the industry.

Participants were shown 4 pictures of the same cluster of grapes holding 82 total grapes. One picture showed 6% of its grapes removed (only 5 grapes which were hard to recognize); the next had 12% removed; the next 18%; the next 24%. The purpose was to demonstrate it is not easy to estimate bird losses by looking at a cluster. For this reason, it is very possible that growers *underestimate* bird losses. When asked about the amount of damage they would have on their farm without bird control participants said they would have **20% bird losses** with **NO** bird control measures, but have **10% bird losses** even with their current bird control measures. This is still a **very** sizable loss.

We asked participants about their use of netting of regular crop, not for ice wine. As one might expect, smaller growers had a higher % of their grapes netted than larger growers. However, prorated based on acreage, **14% of acres were netted** or about **1 out of every 7 acres**. Intuitively, this seems high, but there is no industry statistic on acres netted to my knowledge. However, this would mean over 2000 acres are netted out there. Growers overwhelmingly said the main impediment to more acres be netted was the cost of netting. Despite this, growers overwhelmingly (93%) said the number of netted acres will either remain the same, or increase in coming years.

A question was asked about the use of bird bangers. Some participants owned none at all, while the largest growers owned more than 15. Almost 200 bird bangers were owned by the collective group and with there being about 3000 acres represented, we can assume there to be about 1 bird banger for every 15 acres of vineyard out there. Again, assuming there are a total of 15,000 acres of grapes, this translates to about 1000 bird bangers being used by the Ontario industry. Growers seemed to believe bird bangers were working with about 75% saying bird bangers were *somewhat effective, effective or very effective*. About 15% said bird bangers were *effective beginning of season, less effective later*.

Since readers know OMAF gets complaints about the use (or misuse) of bird bangers, we asked the question; *bird bangers should not operate in the dark, but we get lots of complaints about this. Would you favour your local by-law officer contacting growers to inform them their bird bangers are operating at night and to take action as necessary?* We were surprised to find 70% of participants answering 'Yes' or 'Maybe'.

Aside from nets and bird bangers, growers told us that shotguns, electronic scarers and scare pistols were about equally the next effective control method, followed by visual scarers.

After the survey above was completed, Ian Frensch, C. Frensch Ltd, Beamsville, a supplier of bird control equipment spoke, along with me on a number of different topics on bird control. On behalf of Ian and myself, I'd like to thank the GGO for organizing these workshops and for the host wineries and Brock for hosting us. We all learned a great deal about bird control from each other.



Update on grapevine cold hardiness and bud survival for March 26, 2013

Dr. Jim Willwerth¹ and Dr. Kevin Ker^{1,2}

¹CCOVI – Brock University; ²KCMS Applied Research and Consulting

Grapevines are continuing to show good levels of cold hardiness at this period of time as vines are just beginning to start the deacclimation process where they will start losing cold tolerance. The latest bud hardiness measurements indicate that all cultivars have LTE10 values below -14°C, the temperature at which 10% of buds can be injured. The colder (and more 'normal') weather that we've experienced in March has delayed deacclimation which is a nice change compared to the weather we experienced last year where grapevines lost many degrees of cold hardiness very early. To put this into perspective, our records indicate that most varieties are between 8 and 10 degrees more cold hardy than they were at this time last year. However, as we get warmer weather and move into April, grapevines will continue to lose cold tolerance. Therefore it is critical that you monitor cold hardiness ratings for varieties in your region regularly during this period up to bud break.

The most recent data posted for bud hardiness can be viewed at <http://www.ccovi.ca/vine-alert/recent>

So far in 2013 we have experienced a reasonably good winter for grapevine bud survival. Current bud survival numbers are good across most regions and varieties at this period of time. It is highly recommended that as you continue to regularly check CCOVI's VineAlert website at <http://www.ccovi.ca/vine-alert/bud-survival> to see the latest status for bud survival in your area.

Summary PDFs of all bud survival data can be found at: http://brocku.ca/webfm_send/25758 and <http://www.kcms.ca/research.asp>

Start-up temperatures for wind machines should be adjusted to account for what we are seeing in vine cold hardiness. For optimal use of wind machines, it is suggested that the start-up temperatures be set at 2 to 3 degrees warmer than LTE10 values at which injury might occur.

Please note: Cold hardiness ratings are estimates only and the information provided are for general guidance. Cold hardiness ratings are site specific and may vary based on vine health, viticulture practices and site conditions, among other factors. Any decisions for protection strategies should be based on your own information and site conditions.

This initiative is supported by funding through Agriculture and Agri-Food Canada's (AAFC) Developing Innovative Agri-Products initiative and the Ontario Ministry of Economic Development and Innovation's (MEDI) Ontario Research Fund, which support industry-led research and innovation. This outreach project is a collaboration between AAFC, MEDI, the Grape Growers of Ontario and Brock's CCOVI and is part of CCOVI's heightened emphasis on outreach to the grape and wine industry.

During the deacclimation period it is **very important** that you monitor the **LATEST COLD HARDINESS DATA** at <http://www.ccovi.ca/vine-alert/recent>



Brock University



Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada

Con't on pg 9

Airblast sprayer start-up tips

Dr. Jason S.T. Deveau, Application Technology Specialist, OMAF and MRA

Mr. Brian Henderson, Sales Representative, HYPRO/SHURflo

Mr. Murray Thiessen - Consulting Agricultural Mechanic

You should plan for half-a-day per sprayer for your start-up routine. It may not take that long, but pressure gauges snap off, fittings crack, and bearings seize – have a plan for getting replacement parts! Here are a few bulleted tips for you to consider as you get your sprayers rolling for the 2013 season.

- **Visual inspection, general cleaning and lubrication.** Do an operational check of the sight gauge (it should not be opaque), regulator and valves. Inspect the frame for corrosion or broken welds – it might even need a paint job. Test the hitch integrity, safety chains and the tank mount, too. Clean and inspect the fan blades, housing, screen and trash guard. Be sure to clean and lubricate the power take-off telescoping shafts and the shields. Wheel bearings and tire pressure should be inspected. An article on wheel maintenance can be found here: <http://www.omafra.gov.on.ca/english/crops/hort/news/hortmatt/2012/30hrt12a2.htm>
- **Pump Maintenance.** One of the most common causes for faulty pump performance is "gumming" or corrosion inside the pump. You should get into the habit of flushing the pump and the entire system with a solution that will chemically neutralize whatever you sprayed that day. This will dissolve most residues remaining in the pump and will also leave the inside of the pump clean for the next use.

Diaphragm Pumps: Hypro recommends changing oil after 40 hours of break-in operation and every 500 hours after that. Diaphragms should be replaced every 500 hours and check valves should be replaced every 1,000 hours. Generally Speaking, EPDM (Black Diaphragms) are a better choice for airblast sprayers while the Desmopan (Amber Diaphragms) are a better choice for lawn care sprayers.

Centrifugal Pumps: Corrosion is the biggest concern. When you winterized your sprayer, you should have cleaned it and flushed it with a 50% solution of permanent-type automobile antifreeze (Prestone®, Zerex®, etc.) containing a rust inhibitor. Alternately, you could have filled the pump with Fluid Film® and then drained and saved the excess for the next application. The ports should have been plugged to keep out air during storage.

Flush the lines. If they aren't already off, remove the nozzles, strainers and filters. Run a few tanks of clean water through the system with the agitation running. This is when rust, scale, anti-freeze and who-knows-what-else breaks free of the sprayer tank and lines. Run them until the discharge is clear, then clean and replace the nozzles, strainers and filters.

Search for leaks. With the tank full, check it for leaks. If the agitator shaft is leaking a little, tighten the packing. If it has bottomed-out you will have to repack it. Get the sprayer up to pressure and look for wet areas on all hoses and connections. If your booms drain through the nozzles when the boom is off, consider new nozzle bodies with check-valves. They cost about \$40.00 each (does not apply to @Turbomist).

Check your strainers and filters. If you don't already have three levels of filtration (including the tank-opening basket) then consider slotted (not mesh) strainers behind the nozzles in the nozzle body. If you don't use them because they plug up, then look to your agitation system: If there is sludge at the bottom of your tank when it's empty, then your pesticide is not mixed or staying suspended properly. That leads to clogged strainers and nozzles. It may also be your sprayer hygiene: You should be washing nozzles and strainers after each spray day.

Are you sure your pressure gauges are accurate? The relief valve should always be in the by-pass position during sprayer start up. If you get a pressure spike during start-up and the needle buries, then the gauge will always read high and must be replaced. An opaque, leaking, or otherwise old gauge should be replaced. Consider purchasing a really good gauge (e.g. www.winters.com) rather than a \$20 dollar version for a farm supply store. New or old, test your gauge for accuracy. A tool to do this can be found here: <http://www.omafra.gov.on.ca/english/crops/field/news/croppest/2012/06cpo12a3.htm>

So, there are lots of other tips – more than we could include here. Always consult your sprayer manufacturer's manual. There's also a checklist at the end of Factsheet 10-047 "Calibrating Airblast Sprayers". Consider printing and laminating a copy for use with a dry-erase marker again and again: <http://www.omafra.gov.on.ca/english/crops/facts/10-047.htm>

Happy Spraying!