Report

Spring Vine Health Field Day
Shoalhaven Region

Thursday 2nd September 2010
Introduction

Report for the Shoalhaven Spring Vine Health Field Day held in Shoalhaven on Thursday 2nd September 2010.

No pre Field Day Review was conducted for this region. This would normally be attached [Appendix 1]

The Flyer [Appendix 2 ]is available online

The Presentations [Appendix 3 ]are available online

This Report includes the Evaluations [Appendix 4] of the Spring Vine Health Field Day and is available online

A budget breakdown [Appendix 5] is available on request via email to svhfd@csu.edu.au

Please Note: This Spring Vine Health Field Day Report, relevant Appendices including Field Day Presentations are available online at www.nwgic.org

Pre-Field Day Discussions and Consultations
(How did we come up with the program?)

No formal pre Field Day Review of vine health was conducted for the region. The program was developed by Shayne Hackett in consultation with Rajarshi Ray and the Shoalhaven Association.

Post-Field Day Discussions and Consultations

Collated Evaluations were sent to Mary Cole and The South Coast Wine Industry Association for the opportunity to comment.

Acknowledgements

The South Coast Wine Industry Association particularly Rajarshi Ray for detailed discussions and organisation, as well as the provision of hospitality. Growers who completed pre field day interviews.

Shayne Hackett from National Wine and Grape Industry Centre (NWGIC) for leadership in the development of the field day program in collaboration with Rajarshi Ray.

Presenter Dr Mary Cole from Agpath Pty Ltd.

“Silos Estate”, Princes Highway, Berry, a delightful hosting venue, with magnificent accommodation, and for lunch.

The NSW Wine Industry Association, especially Richard Hilder for his leadership and direction, GWRDC Grassroots Program and the GWRDC for funding the development of this coordinated extension initiative.
Acknowledgements continued

President Gary Peat for the Association’s leadership and kind introductory and closing remarks.

Charles Sturt University Winery, Wagga Wagga, for the donation of a half case of wine which was awarded to Gary Peat.

Conclusions

Mary’s presentations and material from other Spring Vine Health Field Days are available at www.nwgic.org. Mary has very candid advice and I also thank her for detailed responses to questions raised in the evaluations. Everyone who attended learnt something and increased their capabilities.

These evaluations can be a starting point for planning future Spring Vine Health Field Days. We aim to fit in with an annual enterprise cycle of planning and adapting management to new ideas. I have really enjoyed working with Mary, the Shoalhaven region and Shayne Hackett to deliver this event and look forward to setting a date for next year soon.

Duncan Farquhar
Appendix 4

Shoalhaven Spring Vine Health Field Day Evaluations

KNOWLEDGE CHANGE

![Botrytis Management Knowledge Levels](chart)

KNOWLEDGE GAPS

1. What other questions do you have about botrytis in your situation?

- Require efficacy data from chemical manufacturers in a biological context
- Would spraying beneficial micro-organisms help substantially in a wet summer?
- Which are beneficial fungi and how do we increase these?
- Very informative, learnt a lot
- We have major bird issues 50-100 birds, no help is available after much research
- If going from a routine spray program is it beneficial to spray entire vineyard with a biological spray to improve what has been damaged?
- Off the shelf products concerning beneficial fungi, biodynamics
PRESENTER FEEDBACK ON BOTRYTIS MANAGEMENT KNOWLEDGE GAPS

Require efficacy data from chemical manufacturers in a biological context

A. I am assuming this means efficacy data for biologicals? There is not the depth of data for biologicals because they are more influenced by environment than are conventional chemicals. Manufacturers of biologicals are generally small companies with limited resources for producing replicated research. As the result, most is anecdotal. I am talking to many biological companies about accumulating data onto their websites.

Would spraying beneficial micro-organisms help substantially in a wet summer?

A. Yes. Biologicals such *Trichoderma* products particularly those that contain at least two species, can be applied as curatives to foliar/bunch zone sprays after rain. If conventional chemicals have to be used, then 7 days later, biologicals can be applied with beneficial outcomes.

Which are beneficial fungi and how do we increase these?

A. Most fungal species are beneficial in some way. Those species present in a correctly made compost/ compost tea will increase biodiversity in the vineyard. Mulch, and compost applied in the vinerow will increase the biodiversity naturally with many beneficial fungi such as *Trichoderma* and *Gliocladium* and many more.

We have major bird issues 50-100 birds, no help is available after much research

Very much a local problem in most regions. I cannot offer any more than is in the literature.

If going from a routine spray program is it beneficial to spray entire vineyard with a biological spray to improve what has been damaged?

A. Remember that routine spraying has reduced diversity in the vineyard. It may take some time to make a complete transition to biologicals. Start with the soil and build up the biodiversity by using compost, mulch and compost teas. It is useful to know what the activity is in the soil for a base-line. Compost/ compost tea is applied so that the relationship between fungal, bacteria, protozoa and nematodes can be re-established. Foliar applications increase biodiversity on the above-ground parts of the vine. Biologicals with good canopy management can reduce reliance on conventional chemicals. If a catastrophic disease outbreak occurs for some reason and conventional chemicals must be used, then wait for 7-10 days and reapply compost teas to re-establish the loss in diversity caused by the chemical.

Off the shelf products concerning beneficial fungi, biodynamics

A. There are several companies that have commercial biologicals, mostly containing *Trichoderma* species but also *Gliocladium* and *Talaromyces* species. A Google search of “organic/biologicals in Australia” brings up lots of items.
2. Please comment on the importance of botrytis:

- Very important and will be using what I have learnt today
- Critical in our cool wet climate
- Weather often conducive to infection
- Very impactful in our GI
- Late season rain around harvest has potential to decrease crop significantly
- Rain during ripening is common so some level of botrytis is usually an issue, selective picking is used but minimising botrytis incidence is critical
- High summer rain make botrytis difficult to control
- High summer rainfall (pre-harvest) very hard to manage botrytis
- 30-50 per cent loss of fruit in the last 3 years. One month’s rainfall at harvest
- High summer rainfall causes crop failure
- It means fruit or no fruit
- Between rain and birds we have a large ongoing battle
- Of high importance
- Southern highlands has high rainfall in late January and February
- High botrytis presence/environmental conditions
3. What limitations do you have in managing botrytis?

- Besides weather conditions NIL
- Weather
- Rain in this area
- Time
- Rain at harvest
- Scale of a vineyard area- difficult to be reactive rather than preventative
- It is a mental hurdle to reduce chemical use- but we will get there
- Time and money and controlling bird damage fruit. Fruit splitting during summer rain
- Sprays have previously has minimal benefit
- Knowledge base
- Rainfall and bird damage
- Excess rainfall
- Spray has not been working on years of high summer rainfall
- Weather, humidity
- Rain and birds and both of these are problems out of our control
- Clients perception
- Poor spray equipment
PRESENTER FEEDBACK ON CAPABILITY GAPS IN MANAGEMENT OF BOTRYTIS

Besides weather conditions NIL

A. This is correct. Good management will allow you to minimise weather impacts by having good airflow, i.e. minimal leaf and berry wetness, no touching bunches, no damage in the fruit zone.

Rain at harvest

A. There are products available that can kill off an infection at harvest if all other management practices have been in place during the season; i.e. curative rather than preventative.

Scale of a vineyard area- difficult to be reactive rather than preventative

A. Getting across a large vineyard is not possible at times. However, good management during the season will often mean that there are only small pockets that need reactive measures in adverse conditions at harvest.

It is a mental hurdle to reduce chemical use- but we will get there

A. Just experiment with a small section of the vineyard until you are more confident. I have had growers taking 3-4 years before they thought they understood botrytis and other diseases sufficiently well under different weather conditions to then have the courage to let go chemicals. Remember, if a catastrophic event occurs and chemicals are needed, then use them and repair the biological flora 7-10 days later. All is not lost.

Time and money and controlling bird damage fruit. Fruit splitting during summer rain

A. Birds are a difficult problem that is best dealt with on a local level. In other words, I do not know how to help you beyond the obvious things!! Canons are good!!!!!!!!

Sprays have previously has minimal benefit

A. Manage your vines well. Save your money on chemicals and spend it on management and biologicals.

Knowledge base

A. Think about the pathogen and management options. Keep good diaries from year to year.

Spray has not been working on years of high summer rainfall

A. Sprays for botrytis, in particular, do not work because the spray is applied to the bunch zone only when the potential for infection is by botrytis spores all throughout the vineyard and surrounds.

Weather, humidity

A. Manage the vines so that the period of leaf wetness after a rain event is as short as possible. Management the canopy to minimise humidity build-up by having good air flow.
Clients perception

A. Not sure what this one means. Knowledgeable clients will know that low/no chemical wine is better.

Poor spray equipment

A. Absolutely essential to have good spray equipment delivering the correct dose to the target in the vine. Chemicals cannot work if not applied correctly. The same with biologicals.
ASPIRATIONS

4. What do you intend to do about botrytis?

- Focus on environmental causes of Botrytis
- Open up canopy more, clean bunches
- Think about spray program
- Try non chemical method
- Undervine management and removal of damaged fruit
- Keep doing what I have been doing
  1. organise tcc (wasps, open canopies, reduce compost resistant grapes
- Reduce chemical usage
- Applications of learning from body
- More attention to canopy management, airflow etc
- Try blowing out trash from bunches
  Instigate improving numbers of beneficial organisms and soil conditions
- Much more effort in canopy management and other cultural control measures
- Increase focus on canopy management
- Vineyard discussions- examination of what has been happening in the previous years
- Try not using fungicides, use other alternatives, better pruning and canopy management
- Hopefully beat it, canopy management, chemical sprays
- Follow botrytis management list very closely
- Better understand the way botrytis behaves and manage it accordingly
- Removal of vine debris, encourage beneficial fungi
- Much more effort in canopy management and other cultural control measures
PRESENTER FEEDBACK ON FUTURE ASPIRATIONS WITH MANAGING BOTRYTIS

All of the aspirations are achievable by implementing good vineyard and canopy management in the first instance. Chemicals for botrytis, in particular, do not give an effect much different from no chemicals at all so why waste money.

If chemicals are used for mildews, for example, then leave about 7-10 days and then apply biologicals or compost tea to replace the biological diversity that has been lost.

Keep good organic matter in the vinerow which will provide the microbial diversity necessary to remove the pathogens from the environment of the vineyard. The woody material does not need to be removed from the vineyard. Just mulch and throw to the vine line and the natural microbial populations will deal with the pathogens over the winter.

Knowledge is power. You make decisions based on confidence and outcomes. Change over only part of your vineyard at a time and compare results. Keep a detailed diary of weather events, management and outcomes including wine quality for future years.

Best of luck. You are very welcome to contact me for advice agpath@dcsi.net.au, Mary Cole
ASPIRATIONS continued

5. Where to next? Name one topic in vine health you would like to explore next year.

- LBAM ID and management options
- Non chemical mildew management
- Alternative powdery treatments, more on composts and teas
- Mildew downy and powdery
  1. Would like to know if an organic discussion group could be started
  2. Funding on more research
- Powdery mildew
- Some expert direction on water usage
- Downy mildew control without chemicals
- Powdery Mildew
  Please show picture of LBAM egg mass
- More detailed discussion on canopy management also vineyard floor management i.e. grass that could be used to reduce vigour in high moisture/fertile soils.
  Web links to allow growers to input info, in allowing experts to help in improving quality
- Very good, many thanks to Mary and Shayne. Many new things to think about.
- Making compost tea
- other diseases, mulching
- Biological profile of vines and soil. Please email pic of LBAM eggs
- How to effectively reverse routine spray program damage
- RDJ, Biodynamics, environmental impact on wine quality (temp, sunlight hours)