

Welcome to the Canola Pathology Workshop 2016



Issues which require consistent industry response Highlights from 2015

Session 1: Incidence/Severity of canola diseases



- “ **Canker in branches** and the environment factors surrounding this phenotype
- “ Martin Barbetti: suggested pycnidia spores running down the branch with rain
- “ Rob Wilson: issues with agronomists misdiagnosing symptoms. Some agronomists thought the canker in the branches was due to *Sclerotinia*.
- “ Steve Marcroft: do we want to release a factsheet to industry about canker in the branches?
- “ Kate Light: what management advice will you give?
- “ S. Marcroft: cannot give management information but can give information about the symptoms, why we think they occur, and highlight differences between *Sclerotinia* infection and canker in the branches. Are we happy to do this? Agreed.
- “ Action: S. Marcroft to put together factsheet.

Session 2: Other diseases and overall discussion

Image: DAFWA

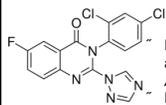
- “ Steve Marcroft: concerns regarding **screening for virus resistant germplasm** in NVT lines, as the cultivars turn over so quickly that by the time it is identified the cultivars are no longer available.
- “ Andrew Easton re. Martin Barbetti presentation: concerned about screening of other diseases each year. Is there a stop/go process built in the project? Surely if a disease is identified as not important early in the project then no further work on disease management should be investigated.
- “ M. Barbetti: there is no stop/go built in to the project. Disease management work will be done for each pathogen each year, if at the end of the project it is determined that the pathogen has no economic impact, management advice will not be released to growers.
- “ S. Marcroft: why spend money on screening germplasm when breeders won't use the material?
- “ A. Easton: we would not breed for resistance to viruses or other diseases. Would any of the other companies? All companies said NO.

Session 3: *Sclerotinia*

Image: Venetta

- “ Ravjit Khungara: we now have all information we need on ***Sclerotinia* epidemiology**.
- “ David Pike: Ravjit suggests that only 75% humidity is needed for disease; however, Kurt Lindbeck's data show in the Eastern states higher humidity is required.
- “ Andrew Easton: if *Sclerotinia* resistance exists and two more years of funding are needed to get the germplasm from India to Australia, then why isn't it being funded?

Session 4: Staying ahead of blackleg



- Richard Oliver: re Peter Thrall's talk on modelling - a lot is already known about *R* genes and evolution of populations of *Avr* genes in blackleg, why not model **fungicide resistance**?
- Peter Thrall: we can consider that.
- Steve Marcroft: will inform industry that fungicide tolerant isolates have been identified, it is preliminary data, and no information on specific locations. Is everyone ok with this? Agreed
- R. Oliver: fungicide tolerance already also developed towards barley net blotch.
- R. Oliver: if 1% of a population has resistance/tolerance then it will quickly become a huge issue for industry. 1% is hard to detect, yet already been for *L. maculans*.
- R. Oliver: powdery mildew develops resistance to fungicides quickly. This makes this a sentinel pathogen to screen for resistance. Perhaps we should consider doing this?
- David Pike: powdery mildew develops late in the season so will not be exposed to fungicides, therefore probably not a good option.
- Action: National pathology team to release information to industry regarding fungicide tolerant isolates.

Session 4: Staying ahead of blackleg



- Susie Sprague: based on Vicki Elliott's talk showing that major gene (seedling) resistance is expressed in several growth stages of the plant, then surely seedling resistance terminology needs to be abolished. **What terminology do we want to encourage industry to use?**
- Suggestions included major and minor gene resistance, quantitative and qualitative resistance, combinations of the two.
- Barbara Howlett: concerned that this group should not make an ad hoc decision; also that terminology should be consistent with that in other crops
- Don McCaffrey: associates major gene resistance terminology with Surpass breakdown.
- Concern from a few people about using quantitative and qualitative resistance. No real consensus, but major and minor gene were fairly well received.

What about ARAB in 2016?

- The 19th Australian Research Assembly on Brassicas is going to be combined with 20th Crucifer Genetics Conference.
- Opportunity to showcase Australian research on Brassicas and to emphasize our regional challenges.
- October 3-6th.
- Melbourne.
- <http://brassica2016.com>

