

National Canola Pathology workshop 2010: Summary and Issues:

The workshop attracted 45 participants. As well as the usual topics, a session aimed at generating data to assess economic losses due to diseases of oilseed Brassicas was conducted by Gordon Murray and John Brennan. Also talks were presented by staff of Hexima, an agricultural biotechnology company based in the School of Botany, the University of Melbourne.

Issues arising:

1/ Merits of a paddock-based risk assessment for blackleg – the Balanced Assessment of Risk of Blackleg (the BARB).

Steve Marcroft stressed that the BARB test is to inform growers of risks rather than providing growers with a numerical score. Growers can then choose a strategy to minimise disease risk. Modelling work from Moin Salam would be included as one of the parameters, if appropriate. Inclusion of regional disease severity data was discussed; given that in some regions few sites are monitored for blackleg. The colour coding on the regional data sheets could be augmented by including numbers of sites. Also suggestions were made to

a/ involve a advisory group to help Steve Marcroft determine the contributions of various components to risk

b/ for Marcroft, Howlett and Salisbury to discuss strategies to identify risk with Prof. Mark Burgmann, Director of ACERA (Australian Centre for Environmental Risk Assessment), School of Botany,

c /Get followup data from user groups as to the success of the test

d/ further develop the BARB and make it available on a large scale in time for 2011 (aim for spring 2010).

e/ consider the merits of the regional blackleg severity by cultivar chart. It was agreed that these are useful data and should be presented to industry each year. The final format will need consultation with the seed industry and with advisors / growers.

2/ Nomenclature for resistance genes

The terminology used to describe resistance genes in Brassicas is confusing and inconsistent. For instance, 'polygenic', minor/major -/polygenic – quantitative/ qualitative. We need a standardized terminology that is consistent with that used overseas and that is readily understood by all. As more genes/loci are identified in the differential project (UM00034) we will be able to name genes precisely.

3/ Correlation between disease severity and yield

Trent Potter presented disease severity and yield data for cultivars in various regions. He asked participants to provide more. Several breeders have promised to do so.

4/ Reports of clubroot in canola grown near Geraldton, WA

There are reports of clubroot in canola crops near Geraldton. This will be monitored during the next season.

5/ Screening for sclerotinia resistance.

Martin Barbetti presented assays for reliable screening of sclerotinia resistance in the field and on cotyledons in the glasshouse. Previously a robust assay to screen for sclerotinia resistance has not been available. He also described a Chinese *B.napus* line with very good Sclerotinia resistance. The canola breeders will consider whether this trait should be included in their programs.