



Canola Pathology in Southern NSW

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Canola Pathology in Southern NSW

- Beet western yellows virus studies
- Sclerotinia field trials

Virus diseases of canola

- Sporadic impact on canola production in Australia
- First appeared in crops in late 1990's
- Three viruses of concern
 - Beet western yellows virus (BWYV)
 - Cauliflower mosaic virus (CaMV)
 - Turnip mosaic virus (TuMV)

Symptoms

- Typical symptoms
 - Stunting
 - Reddening
 - Thickening of leaves
 - Young plants and cold conditions
 - Symptoms not always associated with BWYV
- **Yield losses** → 46% in WA & 34% in Europe

BWYV - NSW 2009

- Seasonal conditions
 - Breaking rains in April → sown crops on time
 - Mild winter temps → 18°C days
- No reports of symptoms of virus early in crops

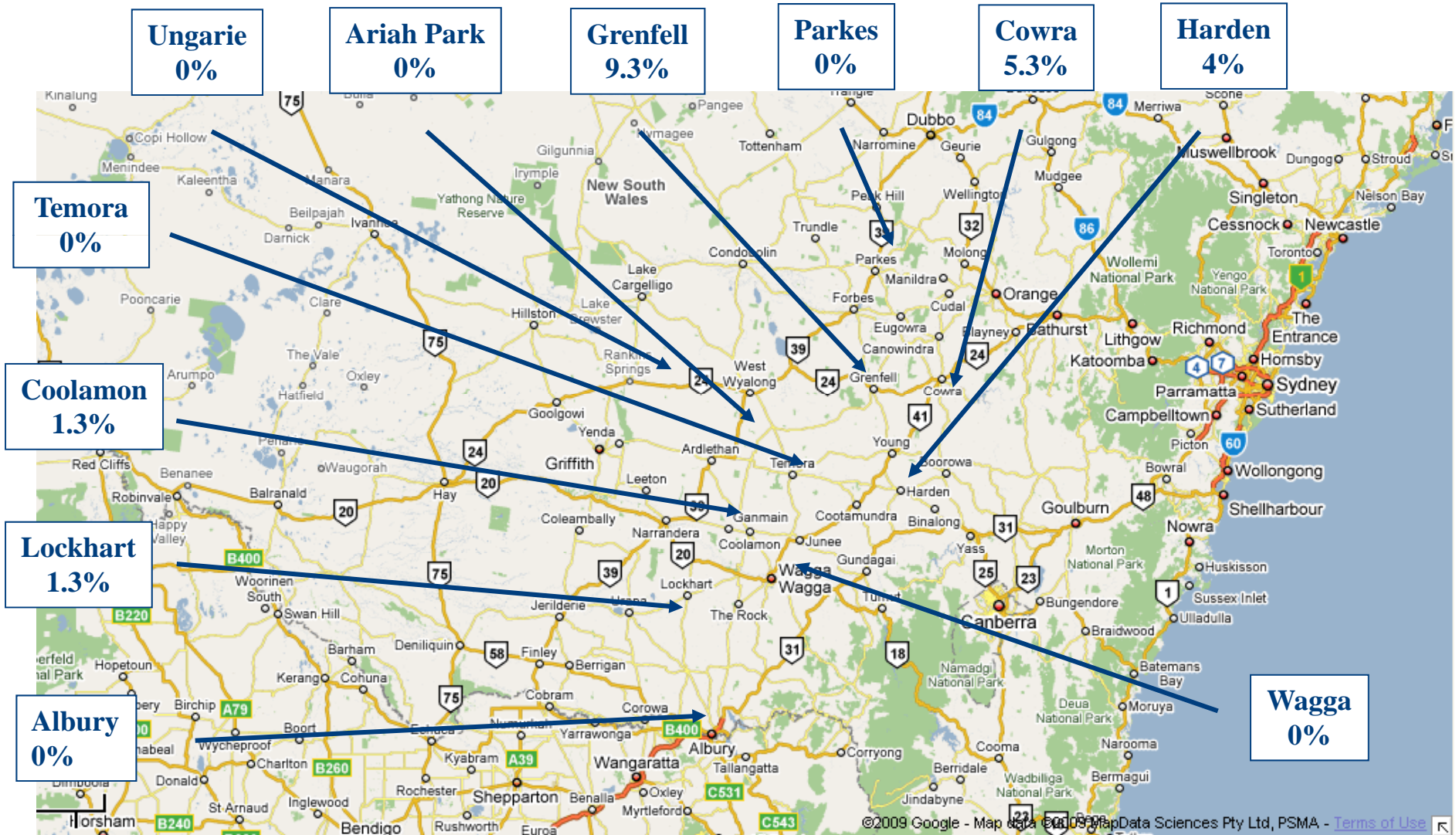
BWYV - NSW 2009

- Survey NVT sites – Southern NSW
 - 13 sites (19th – 21st Oct)
 - Bravo buffer plots
 - 25 plants per buffer plot
 - 3 reps sampled
 - No aphids observed on plants

BWYV NSW Survey - 2008



BWYV NSW Survey - 2009



BWVY - 2009

- The virus situation is dynamic and changes from season to season.
- We do know what virus diseases affect canola
- But, know little about:
 - Annual distribution
 - Importance (losses up to 46% in WA)
 - Epidemiology (virus sources, vector behaviour)







Sclerotinia - 2009

- Field evaluation of fungicides – Wagga Wagga
- Field screening of genotypes - Tamworth

Field evaluation of fungicides

- Evaluate fungicide products for management of sclerotinia
 - Rovral (Iprodione) & Fortress 500 (Procymidone)
 - Early flower (40%) and late flower (70%)
- Trial sown (Garnet) – May 2009
- Sprayed early (protectant) fungicide application - 11th Sept
- 28 - 29^oC temps 12th-13th Sept (flower and petal drop)
- Inoculated with sclerotinia mycelium (60% flower) – 18th September
- Sprayed second fungicide (follow up) – 24th September

Field screening of genotypes

- Evaluate 'resistant' genotypes under field conditions at Tamworth (higher rainfall).
- 10 genotypes selected (Garnet, BLN3613, BLN3351, BLN3345, BLN 3630, 6-06-3792, ZY004, ZY007, ZY008, ZY010).
- Trial sown – 30th June
 - Sclerotia mixed with seed when sown
 - 5 row x 6m plots
- Dry spring conditions
 - Little rain through August and September
 - no disease development.

Where to next.....?

- Continue BWYV survey of NVT sites.
- Re-evaluate sclerotinia field work
 - Persist with field work
 - Move to controlled environment studies...?