



Virus & Sclerotinia in NSW – Who needs Blackleg ?

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NSW DEPARTMENT OF PRIMARY INDUSTRIES

Virus diseases of canola

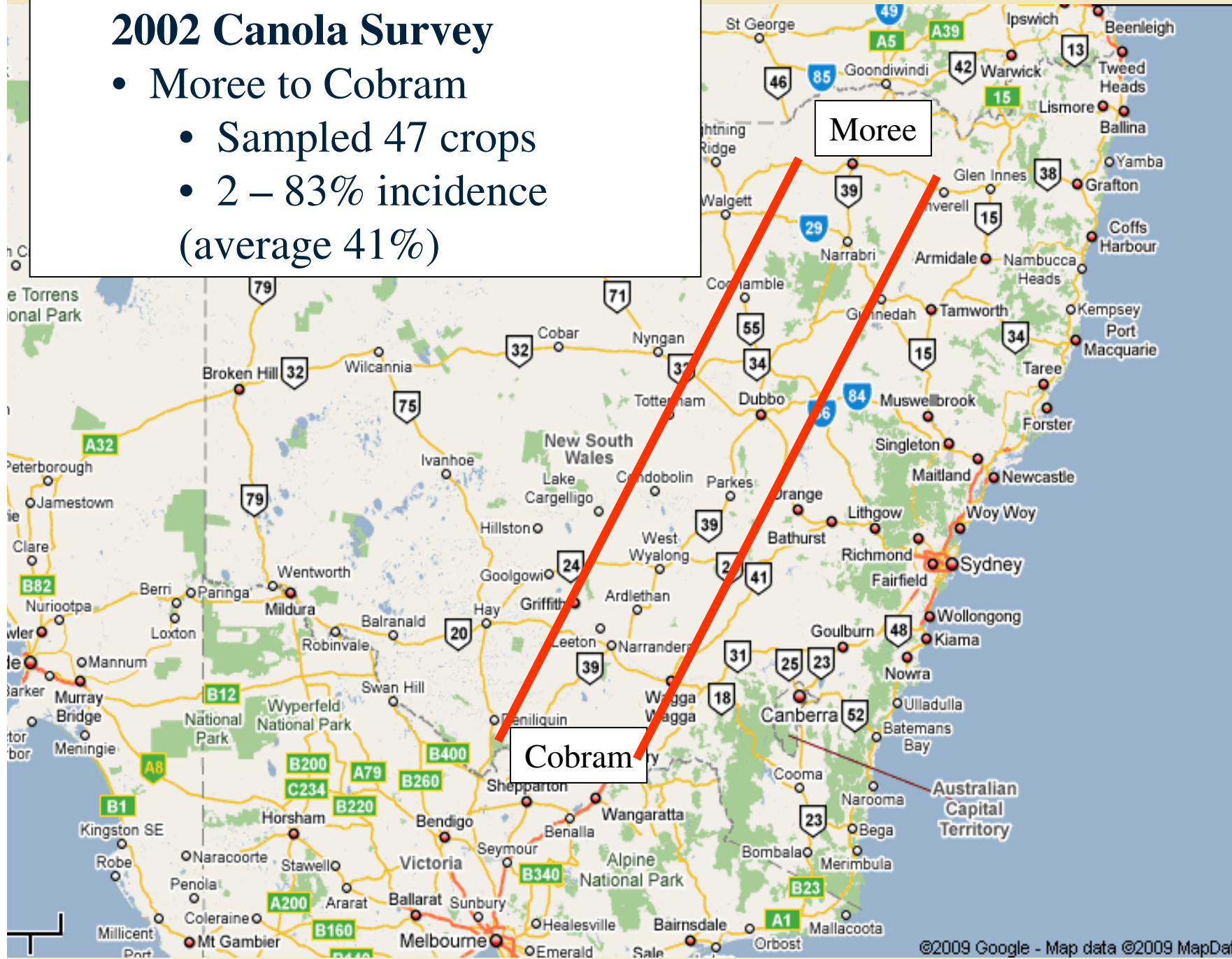
- Sporadic impact on canola production in Australia
- First appeared in crops in late 1990's
- Three viruses of concern
 - Beet western yellows virus (BWYV)
 - Turnip yellows virus (TuYV)
 - Beet mild yellowing virus
 - Beet chlorosis virus
 - Cauliflower mosaic virus (CaMV)
 - Turnip mosaic virus (TuMV)

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

2002 Canola Survey

- Moree to Cobram
 - Sampled 47 crops
 - 2 – 83% incidence (average 41%)



Virus diseases of canola

– 2002 Canola Survey

- No pattern of distribution – high infection rates spread over geographic range
- Crops sown late – less infection
- Crops treated with insecticide – less infection than untreated crops (seed treatment or early sprays)

Virus diseases of canola

- Experimental results (WA)
 - Seed treatment increased seed yield by 84 – 88%
 - Providing good coverage on all seed
 - Seed treatment (imidacloprid) provided up to 2.5 months protection
 - Registered for RLEM, BOM

BWYV - NSW 2008

■ Seasonal conditions

- Breaking rains in late April → early sown crops
- Mild winter temps → 18°C days
- High aphid activity

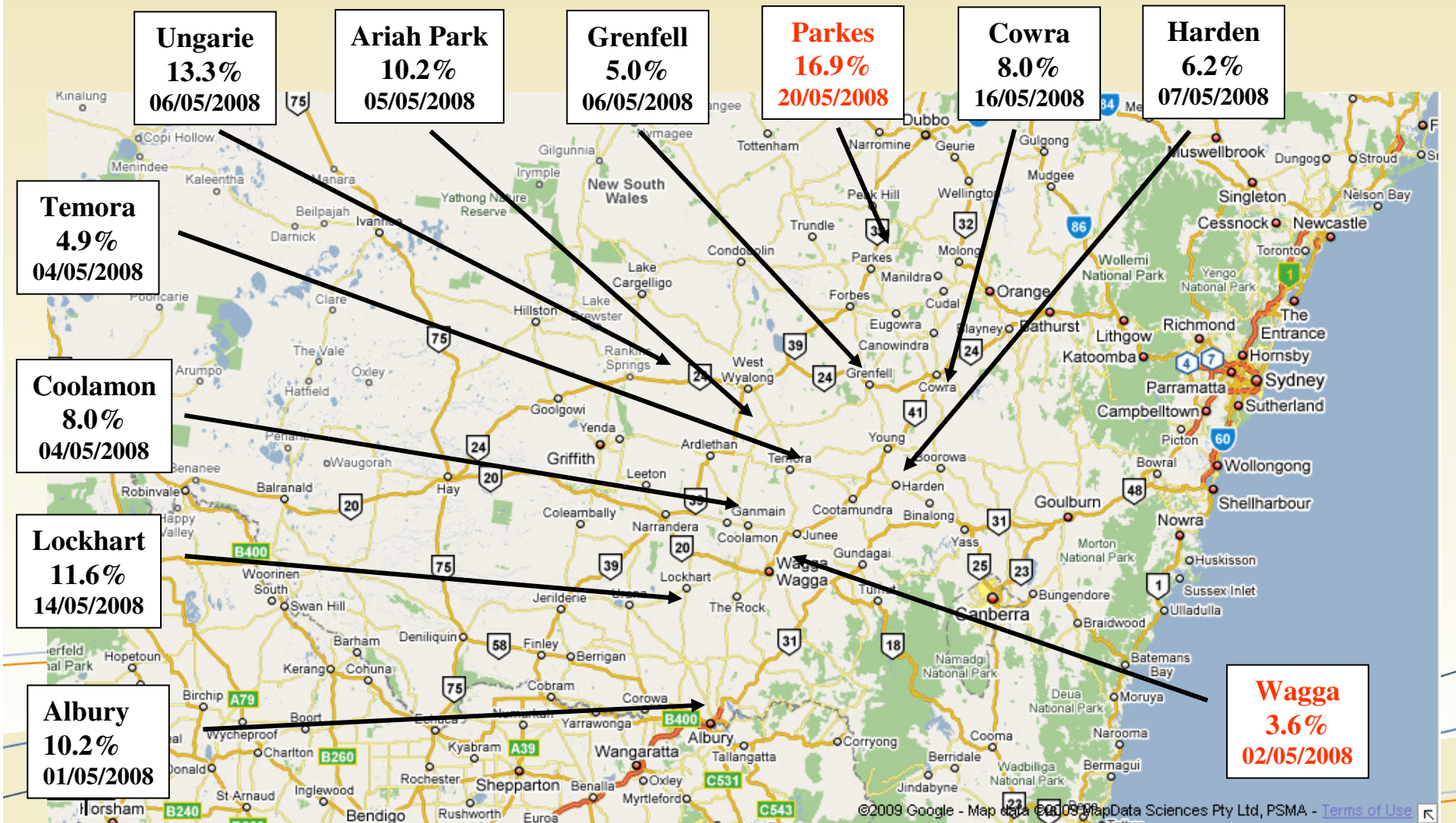
■ Symptoms of virus early in crops

- Discolouration of leaves (mottling)
- Thickened leaf tissue
- Some spraying of crops

BWYV - NSW 2008

- Survey NVT sites – Southern NSW
 - 11 sites (15th – 22nd Oct)
 - Bravo buffer plots
 - 25 plants per buffer plot
 - 3 reps sampled

BWYV NSW Survey - 2008



BWYV - NSW 2008

- Phenology experiment - WWAI
 - 31 genotypes
 - Planted singly
 - 5 different sowing times (30th June – 28th August)
- Virus like symptoms appeared mid Oct
 - Reddening/purpling and cupping of leaves
 - Distorted growing points
 - Distorted pods
 - Plant death
- Testing found all plants to be infected with BWYV
- No TuMV



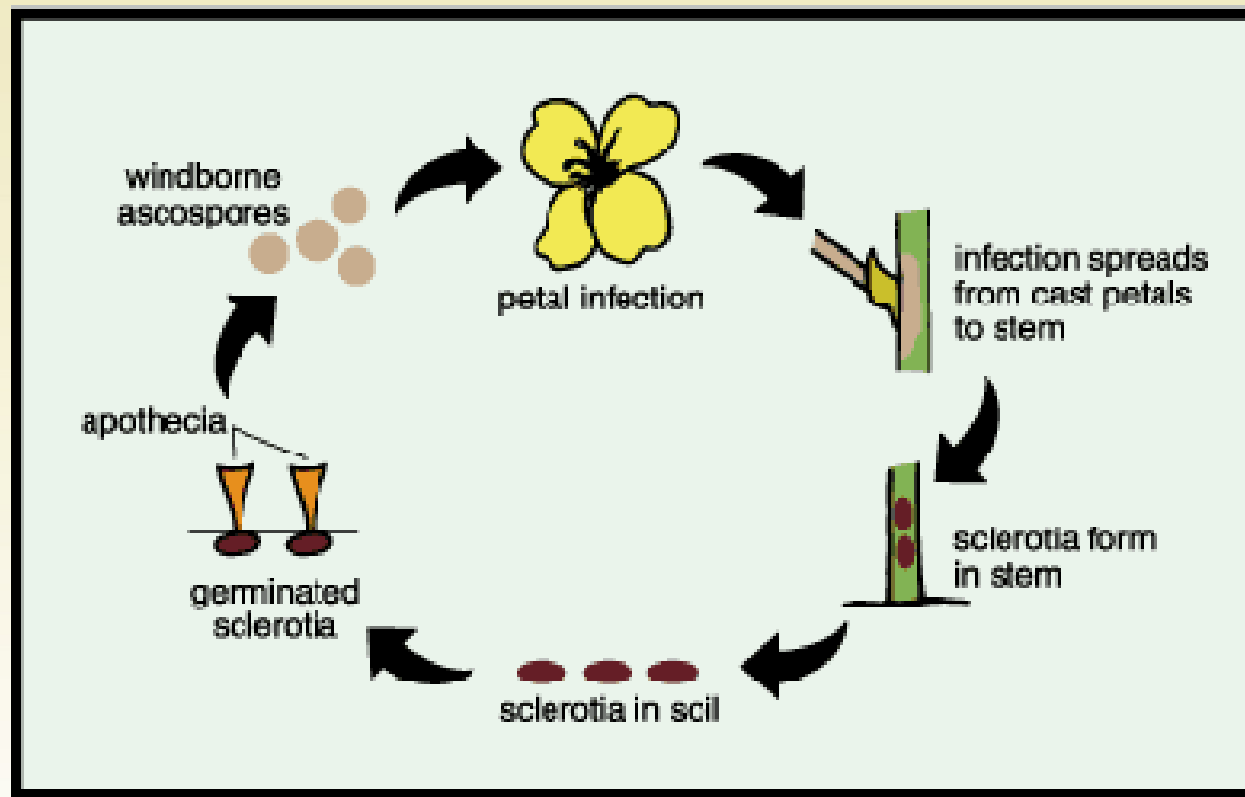




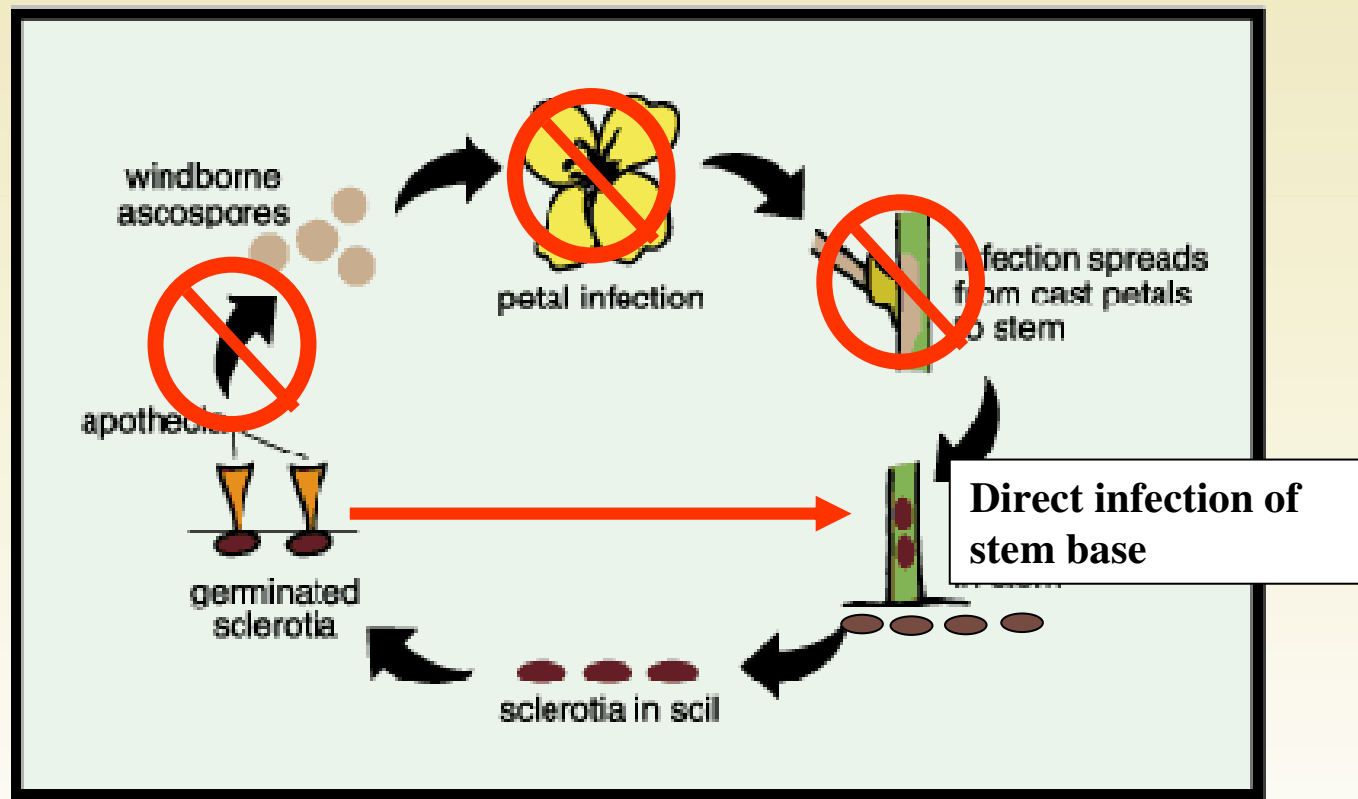
Sclerotinia 2008 Update

- Dry growing conditions in southern NSW
 - Warm/hot days in Sept/Oct → not conducive
 - Fungicide trial abandoned
 - Low levels of sclerotinia still reported
- Wet spring conditions in northern NSW
 - Good rainfalls → late (post flowering)
 - Reports of sclerotinia in canola
 - Basal infections (direct infection)

Sclerotinia stem rot of Canola



Sclerotinia stem rot of Canola





Disease management

- Use clean seed
 - Free of sclerotia ✓
- Crop isolation and rotation
 - Away from airborne spores X
 - Breakdown of sclerotia (up to 8 years) ✓
- Wider row spacings and seeding rate
 - Prevent formation of a dense crop canopy X
- Foliar fungicides X