

Department of Agriculture and Food  
 Australian National Canola Pathology Program

## National Survey of canola diseases other than blackleg and Sclerotinia in 2014

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Supporting your success

## Early – mid season disease monitoring

### Protocol

- All blackleg monitoring sites
- Commercial crops

- *For general disease monitoring from trials, disease assessments were made on 20-50 randomly selected plants (non-destructive sampling)*
- *From commercial crops samples were taken along a 250m transect*

## Early season diseases - Victoria

Site	Downy mildew	White leaf spot	BWVY	Other diseases
Streatham	X	Oldest leaves no yield loss	No symptoms	X
Hamilton	X	Severe	No symptoms	X
Minyip	X	Oldest leaves no yield loss	✓	X
Kaniva	X	Oldest leaves no yield loss	✓	X
Charlton	killed oldest leaf, but no further progression	Oldest leaves no yield loss	No symptoms	X
Yarrowonga	Present on oldest leaves, but no further progression	Oldest leaves no yield loss	No symptoms	X
Wuingham	X	Oldest leaves no yield loss	No symptoms	X
Diggers	Present on oldest leaves, but no further progression	Oldest leaves no yield loss	No symptoms	X

## Early season diseases -NSW

Site	Downy mildew	White leaf spot	BWVY	Other diseases
Beckom	X	Present on older leaves	X	X
Cootamundra	Present on older leaves	X	X	X
Cudal	Present on older leaves	Present on older leaves	X	X
Edgeroi	X	X	X	X
Geogery	Present on older leaves	Present on older leaves	X	X
Grenfell	X	Present on older leaves	X	X
Lockhart	Present on older leaves	Present on older leaves	X	X
Mullaley	X	X	X	X
Parkes	X	Present on older leaves	X	X
Wagga Wagga	Present on older leaves	Present on older leaves	X	X

## Early season diseases -SA

- Low levels of downy mildew at 2 sites
- Moderate levels of white leaf spot at 3 sites

## Early season diseases - HRZ NSW

- Downy mildew and white leaf spot at low levels

## WA Disease monitoring activity

- Early season monitoring – A total of 37 samples
- Downy mildew
  - Percentage samples affected = 63%
  - Average incidence 36%, Range 0-100%
- White leaf spot
  - Detected only in two samples at low levels
- Other diseases
  - none

## Early season diseases WA (blackleg monitoring sites)

Site	Downy mildew	White leaf spot
Dandaragan	Low levels	X
Corrigin	Low levels	X
Williams	moderate	X
Katanning	moderate	X
Kojonup	moderate	X
Kendenup	moderate	X
South Stirlings	moderate	X
Gibson	low	X

## Late season disease monitoring

### Protocol

- Sampling protocol similar to the one used for monitoring seedling diseases.
- Sampled at or close to swathing. A total of 40 or 100 plants were collected for each sample.

## Late season Diseases - Victoria

Site	Alternaria	Powdery mildew	TuYV
Streatham	X	X	17
Hamilton	X	X	3
Minyip	X	X	50
Kaniva	X	X	53
Charlton	X	X	35
Yarrawonga	X	X	33
Wunghnu	X	moderate levels	50
Diggora	X	low levels	50

## Late season Diseases - NSW

Site	Alternaria	Powdery mildew	
Beckom	X	X	
Cootamundra	X	X	
Cudal	Trace	X	
Edgeroi	na	X	
Gerogery	low level, more in Groups B & C	low levels	
Grenfell	X	X	
Lockhart	Trace	moderate levels	
Mullaley		X	
Parkes	X	low levels	
Wagga Wagga	X	X	

## Late season - South Australia

Site	Alternaria	Powdery mildew	TuYV
ARTHURTON	X	moderate	54
BORDERTOWN	X	X	32
FRANCES	X	X	8
MT HOPE	X	X	44
RIVERTON	X	Low	27
SPALDING	X	Low	31
TURRETFIELD	X	Moderate to high	22
YEELANNA	X	X	64

## Powdery mildew severity in blackleg resistance groups

	A	B	C	D	E	F	S
NSW							
GEROGERY				Site score 1			
LOCKHART				Site score 2			
PARKES				Sites core 1			
SA							
ARTHURTON	1.0	2.7	2.7	2.0	1.0	3.0	1.0
RIVERTON	1.0	2.0	1.3	1.3	1.0	2.0	1.0
SPALDING	0.7	1.3	1.0	1.0	0.7	1.0	0.3
TURRETFIELD	2.0	3.7	3.0	3.3	2.0	3.0	2.3
VIC							
DIGGORA				Site score 1			
WUNGHNU	1.0	2.3	1.0	2.3	1.3	3.0	0.3

## Late season monitoring WA

- Observed in 62 samples
- No Alternaria
- No club root
- No powdery mildew
- TuYV detected at Corrigin, Kendenup, Kojonup and Williams

## 2014 Summary

### Major other disease issues

- **Early season**
  - Downy mildew
    - Western Australia
  - TuYV
    - High levels in SA
- **Late season**
  - TuYV
    - High levels in SA, NSW and Victoria

## 2013 vs 2014 disease comparisons

- |                                                                                          |                                                                                                             |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| • 2013                                                                                   | • 2014                                                                                                      |
| • Downy mildew <ul style="list-style-type: none"> <li>– Vic and WA</li> </ul>            | • Downy mildew <ul style="list-style-type: none"> <li>– WA</li> </ul>                                       |
| • WLS <ul style="list-style-type: none"> <li>– Vic</li> </ul>                            | • WLS <ul style="list-style-type: none"> <li>– Not a serious issue</li> </ul>                               |
| • Alternaria pod spot <ul style="list-style-type: none"> <li>– Vic, WA and SA</li> </ul> | • Alternaria pod spot <ul style="list-style-type: none"> <li>– Not a serious issue</li> </ul>               |
| • TuYV <ul style="list-style-type: none"> <li>– Low levels in all states</li> </ul>      | • TuYV <ul style="list-style-type: none"> <li>– High levels in SA, NSW and Vic, low levels in WA</li> </ul> |

## Achievements and Future research activities

- A review on other canola diseases submitted to GRDC
- GRDC tender, 'Other foliar diseases of canola'
- Continue monitoring activity
- Investigate the disease impact upon canola production
- Control measures