NSW Department of Primary Industries

GRDC Grains Research & Development Corporation

Sclerotinia Update 2016

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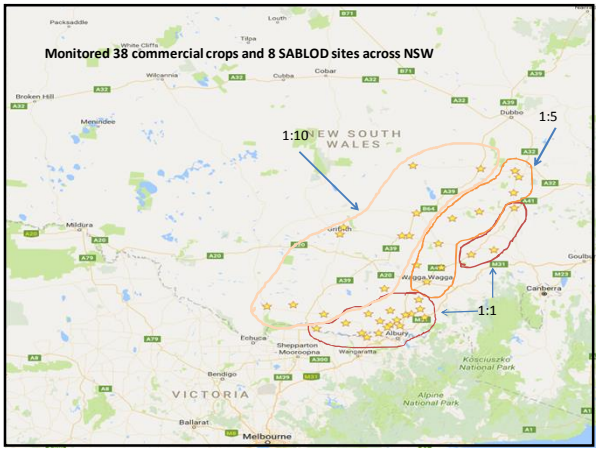
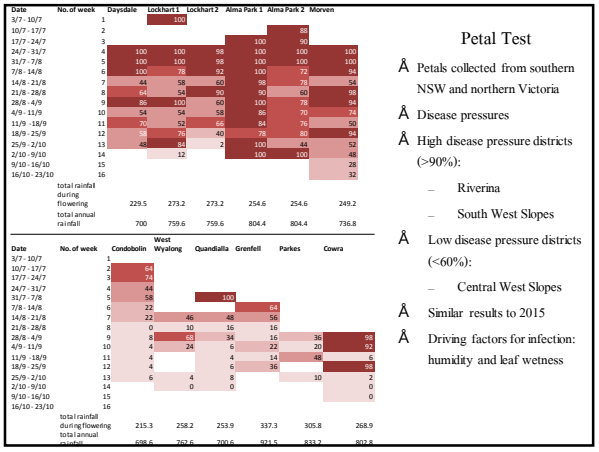
Environmental observations 2016

- New South Wales and Victoria:
  - Above average rainfall from May to September
  - Visible apothecia development in early July
  - Emerged petals were infested with ascospores
- South Australia:
  - Above average rainfall in June and July
  - Extremely wet September and October
- Western Australia:
  - Above average rainfall throughout the state
  - Extremely wet growing season conditions from May to October



NSW

- Disease was widespread across NSW
- Sclerotinia was present in low disease pressure and lower rainfall districts
- Damaging levels of infection in high disease pressure districts
- Average severity up to 10%
- Effective application of foliar fungicide keep disease levels low

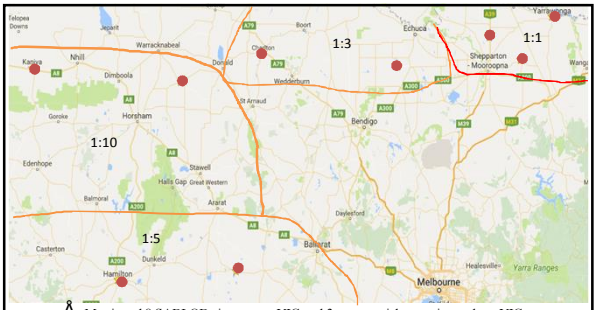


Date	No. of week	Daysdale	Lockhart 1	Lockhart 2	Alma Park 1	Alma Park 2	Morven
3/7 - 10/7	1		100				
10/7 - 17/7	2					88	
17/7 - 24/7	3				100	96	
24/7 - 31/7	4	100	100	98	100	100	100
31/7 - 7/8	5	100	100	98	100	100	100
7/8 - 14/8	6	100	78	92	100	72	94
14/8 - 21/8	7	44	58	60	98	78	54
21/8 - 28/8	8	64	54	90	90	60	98
28/8 - 4/9	9	86	100	60	100	78	94
4/9 - 11/9	10	54	54	58	86	70	74
11/9 - 18/9	11	70	52	66	84	76	50
18/9 - 25/9	12	94	76	40	78	80	94
25/9 - 2/10	13	48	66	2	100	44	52
2/10 - 9/10	14		12		100	100	48
9/10 - 16/10	15						28
16/10 - 23/10	16						32
	total rainfall during flowering	229.5	273.2	273.2	254.6	254.6	249.2
	total annual rainfall	700	759.6	759.6	804.4	804.4	736.8

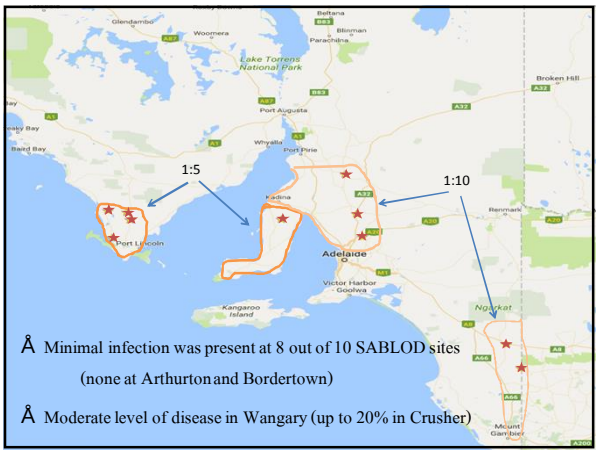
Date	No. of week	Condobolin	West Wyalong	Quandialla	Grenfell	Parkes	Cowra
3/7 - 10/7	1						
10/7 - 17/7	2	64					
17/7 - 24/7	3	74					
24/7 - 31/7	4	44					
31/7 - 7/8	5	58		100			
7/8 - 14/8	6	22			64		
14/8 - 21/8	7	22	46	48	56		
21/8 - 28/8	8	0	10	16	16		
28/8 - 4/9	9	8	66	34	16	36	98
4/9 - 11/9	10	4	24	6	22	20	92
11/9 - 18/9	11	4		4	14	48	6
18/9 - 25/9	12	4		6	36		98
25/9 - 2/10	13	6	4	8		10	2
2/10 - 9/10	14		0	0			0
9/10 - 16/10	15						0
16/10 - 23/10	16						
	total rainfall during flowering	215.3	258.2	253.9	337.3	305.8	268.9
	total annual rainfall	698.6	767.6	700.6	921.5	833.2	802.8

Petal Test

- Petals collected from southern NSW and northern Victoria
- Disease pressures
- High disease pressure districts (>90%):
  - Riverina
  - South West Slopes
- Low disease pressure districts (<60%):
  - Central West Slopes
- Similar results to 2015
- Driving factors for infection: humidity and leaf wetness



- Monitored 8 SABLOD sites across VIC and 3 commercial crops in northern VIC
- Minimal infection present at 6 out of 8 SABLOD sites (none at Minyip and Hamilton)
- High infection level up to 20% infection in western VIC, Kaniva
- High infection level up to 40% in northern VIC, Dookie even after 2 fungicide applications



- Minimal infection was present at 8 out of 10 SABLOD sites (none at Arthurton and Bordertown)
- Moderate level of disease in Wangary (up to 20% in Crusher)

WA

- Monitored a total of 65 commercial crops and SABLOD sites across WA
- Sclerotinia was widespread across all canola growing regions in WA
- Low levels of sclerotinia infection in low rainfall zone
- High levels of ground/basal infection in central and southern WA
- Average severity of 9% across state
- Low disease severity due to effective fungicide application
- Highest yield loss of 20% in a few untreated crops

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Summary

- Above average rainfall in 2016
- Growing season conditions from winter and early spring are conducive for stem rot
- Sclerotinia outbreaks were widespread in all canola growing regions
- Source of inoculum was not a limiting factor
- Severity was highly dependent on environmental conditions (prolonged period of humidity and leaf wetness)
- Disease severity was minimal due to effective foliar fungicide application

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