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Plant Breeding Institute
Cereal Rust Laboratory

Cereal Rust Report Season 2009

Stripe Rust Responses of Australian Wheat Varieties, 2009

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A revision of expected stripe rust responses for Australian wheat varieties recommended for sowing in 2009 is included with this report. The annual revision is based on data collected in the 2008 season, assessment of this data against previous responses and the inclusion of newly released varieties. Pathotype change is another important element of the revision process. However, the expected responses to the most recently identified 'Jackie Yr27' pathotype will remain unclear until field data is collected in 2009.

An annual review of Australian commercial wheat varieties for response to stripe rust has been convened since 2003. Efforts have been taken through teleconferencing with state based cereal plant pathologists to find consensus for disease responses that are consistent across national wheat growing regions. Data gathered from field nurseries across Australia in 2008 was sent for collation to the NVT scheme; the data was made available to breeding companies for comment prior to calling a teleconference of state cereal plant pathologists. The meeting was attended by Peter Wilkinson (Queensland), Andrew Milgate and Steven Simpfendorfer (NSW), Grant Holloway (Victoria), Hugh Wallwork (South Australia), Robert Loughman (Western Australia) and Harbans Bariana and Colin Wellings (Plant Breeding Institute). The varietal response classifications from the meeting were again circulated to breeding companies for comment; disputed results were then resolved through a process of revision and consultation.

The response classification for 150 Australia bread wheat and durum wheat varieties is presented in the accompanying table. These wheats are drawn from varieties across all states that are published in sowing guides for 2009, with the addition of recently named varieties. In the case of the latter, responses may be noted as provisional based on limited data sets.

The pathotypes of most concern in wheat growing regions are presented in two columns. The 'WA' pathotype and the 'Jackie' pathotype are combined since they have identical features with respect to wheat varieties. The contrast between these pathotypes is evident among triticale varieties (see Cereal Rust Report Volume 7, Number 1, 2009). The second column indicates the expected response to the 'WA Yr17' pathotype, and so the varieties carrying Yr17 are the group most affected. The newly described 'Jackie Yr27' pathotype (Cereal Rust Report Volume 6, Number 8, 2008) poses a potential threat to those wheats carrying Yr27. Responses of

these wheats to the 'Jackie Yr27' pathotype will remain uncertain until field data is collected in 2009.

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Copies of previous Cereal Rust Reports can be viewed and downloaded from:

http://www.agric.usyd.edu.au:8888/pbi/cereal_rust_reports_crr.htm

	Pathotype		Comments
	134 E16 A+ 134 E16 A+ J+	134 E16 A+ Yr17+	Resistance Genes
Bread Wheats			
AGT Scythe	MS-S	MS-S	YrA ^a
Amarok	R	MR-MS	Yr17
Annuello	MS-S	MS-S	Yr7 ^a
Arrino	S	S	
Axe	MR	MR	
Babblers	MS-S	MS-S	
Banks	MR-MS	MR-MS	YrA ^a
Barham	R	MS-S	Yr17
Baxter	MS	MS	
Beaufort	R	R	
Binnu	R	MR-MS	Yr17
Bolac	R-MR	R-MR	
Bowerbird	MS-S	MS-S	Yr7
Bowie	R	S	Yr17
Braewood	R	MR	Yr17
Brennan	R	R	
Bullaring	MR-MS	MR-MS	
Bullet	MS-S	MS-S	Yr7
Bumper	MS	MS	
Cadoux	S	S	Yr6, Yr7
Calingiri	MS-S	MS-S	Yr7 ^a
Camm	R	MS-S	Yr17
Carinya	R	MR-MS	Yr17
Carnamah	MS-S	MS-S	
Catalina	MR-MS	MR-MS	
Chara	MS-S	MS-S	
Clearfield Jnz	MS	MS	
Cook	MR	MR	
Correll	MR	MR	
Crusader	R	MR-MS	Yr17
Cunningham	MS	MS	
Currawong	MR-MS	MR-MS	
Dakota	MR-MS	MR-MS	
Datatine	MS-S	MS-S	
Derrimut	R	MS	Yr17 ^a
Diamondbird	MS	MS	Yr7
Drysdale	MS	MS	Yr7
EGA 2248	MS-S	MS-S	
EGA Bonnie Rock	S-VS	S-VS	
EGA Bounty	MR	MR	
EGA Burke	MS	MS	Yr7
EGA Eagle Rock	MS	MS	
EGA Eaglehawk	R	MR-MS	Yr17
EGA Gregory	MR	MR	Yr33
EGA Hume	MR	MR	
EGA Jaegar	R	MR-MS	Yr17
EGA Jitarning	MS	MS	
EGA Kidman	MR-MS	MR-MS	
EGA Stampede	MR	MR	
EGA Wedgetail	MR-MS	MR-MS	Yr7

	Pathotype		Comments
	134 E16 A+ 134 E16 A+ J+	134 E16 A+ Yr17+	Resistance Genes
Bread Wheats			
EGA Wentworth	MR-MS	MR-MS	
EGA Wills	MR-MS	MR-MS	
EGA Wylie	MR-MS	MR-MS	
Ellison	R	MR-MS	Yr17
Endure	R	MS	Yr17 ^{b, c}
Espada	R	MR-MS	Yr17
Excalibur	S-VS	S-VS	
Fang	R	S	Yr17 ^b
Fortune	MS	MS	
Frame	MR-MS	MR-MS	
Frelon	R	R	
Gamenya	S	S	
Gascoigne	R-MR	R-MR	
GBA Hunter	R-MR	R-MR	Yr9, Yr27
GBA Ruby	R-MR	R-MR	Yr27
GBA Sapphire	MS	MS	
Giles	MR-MS	MR-MS	
Gladius	R	MR-MS	Yr17 ^b
Gruner	MR	MR	
Guardian	MS	MS	
H45	VS	VS	Yr7
H46	MS	VS	Yr17
Harrismith	VS	VS	
Hartog	MR-MS	MR-MS	Yr6, Yr7
Hornet	R	MS	Yr17
Janz	MS	MS	
Kellalac	MR-MS	MR-MS	YrA
Kennedy	MR-MS	MR-MS	Yr7
Krichauff	S-VS	S-VS	
Kukri	MR-MS	MR-MS	Yr7
Lang	MS	MS	
Leichhardt	MS	MS	
Lincoln	R-MR	R-MR	
Livingston	R	R-MR	Yr17, Yr27
Lorikeet	MS-S	MS-S	
Mace	R	MS-S	Yr17
Machete	MS-S	MS-S	
Mackellar	R	R	
Magenta	MS	MS	
Marombi	R-MR	MS	Yr17
McCubbin	R	R	
Meering	MS	MS	
Merinda	R-MR	R-MR	Yr27
Mira	MR	MR	Yr27
Mitre	MS-S	MS-S	
Naparoo	R	R	
Peake	MR-MS	MR-MS	Yr6 ^a
Petrel	MR-MS	MR-MS	
Petrie	MR-MS	MR-MS	
Pugsley	R	S	Yr17
QAL 2000	R	VS	Yr17 ^a
QAL Bis	R-MR	S	Yr17
QAL 1064	MS-S	MS-S	
QAL 3362	MS	MS	
Rees	MS	MS	Yr7
Rosella	MR-MS	MR-MS	
Rudd	R	R	Yr1, Yr17

	Pathotype		Comments
	134 E16 A+ 134 E16 A+ J+	134 E16 A+ Yr17+	Resistance Genes
Bread Wheats			
Sentinel	R-MR	R-MR	Yr9
Snipe	MR-MS	MR-MS	
Spear	S	S	
Stillete	S	S	
Strzelecki	MR	MR	Yr33
Sunbri	R	MR	Yr17
Sunbrook	MR-MS	MR-MS	
Sunco	MR-MS	MR-MS	
Sunlin	R	MR	Yr17
Sunsoft 98	S	S	
Sunstate	R	MS	Yr17
Sunvale	R	MR	Yr17
Sunvex	R	MR	Yr17
Sunzell	R-MR	MR	Yr17
Tammarin Rock	MS-S	MS-S	Yr6
Tennant	MR	MR	Yr9
Thornbill	MS	MS	
Tincurrin	S	S	
Trident	R	S	Yr17
Ventura	R	MS	Yr17
Waagan	MR	MR	Yr27 ^b
Westonia	VS	VS	Yr6, Yr7
Whistler	MS-S	MS-S	
Wrangler	R-MR	MR	
Wyalkatchem	MS-S	MS-S	^a
Wylah	MS	MS	
Yandanooka	MS-S	MS-S	
Yenda	R	MS-S	Yr17
Yitpi	MR-MS	MR-MS	
Young	MR	MS	Yr17 ^a
Zebu	R-MR	R-MR	Yr9, Yr27
Zippy	MS-S	MS-S	
Durum Wheats			
Arrivato	R-MR	R-MR	
EGA Bellaroi	MR	MR	
Hyperno	MR	MR	
Jandaroi	MR	MR	
Kalka	MR	MR	
Saintly	MR	MR	
Tamaroi	MR	MR	
Wollaroi	MR	MR	
Yallaroi	MR	MR	
Zulu	MR	MR	

(a) evidence for mixed response with some plants more susceptible; (b) provisional based on limited data; (c) S at one site in 2008

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Rusted plant samples can be mailed in paper envelopes; do not use plastic wrapping or plastic lined packages. Direct samples to:

Australian Cereal Rust Survey
Plant Breeding Institute
Private Bag 11, Camden NSW 2570

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