

Title	Identifying novel resistance genes to Septoria tritici blotch DPI2305-008RTX
Abstract	<p>"Advancing genetic solutions for crop protection in Australian wheat: identifying novel and optimal combinations of APR resistance genes to Septoria tritici blotch. Wheat is one of the most important crops in Australia, providing food, feed and export income. However, wheat production is threatened by various diseases, such as Septoria tritici blotch (STB), a foliar disease of wheat caused by the fungus Zymoseptoria tritici. This disease is prevalent in medium-high rainfall zones of Australia. If left unmanaged, STB can result in yield losses of up to 50% and traditional control by fungicides is estimated to cost the industry \$121 million per year is less effective due to fungicide resistance evolving in Australia to some common triazoles and strobilurin. One way to manage this disease is to use wheat varieties resistant to STB. However, 10 out of 17 genes tested for adult plant resistance (APR) performance in field experiments over the past 8 years are no longer effective in Australia. These include; Stb2/11/WW, Stb3, Stb4, Stb6, Stb7/12, Stb9 and Stb18. Therefore, identifying new sources of APR genes is essential for developing wheat varieties with better agronomic performance.</p> <p>Adult plant resistance (APR) genes confer partial but durable resistance to the disease at later stages of plant development. They are preferred in breeding programs because of their flexibility in integrated disease management (IDM) systems and their durability of resistance. These projects aim to discover and transfer novel APR genes for STB resistance into adapted wheat varieties while also determining the optimal combinations of existing effective APR genes and remove the barriers to their adoption by Australian wheat breeding programs. The resources available on this site are developed through research partnerships between GRDC and NSW DPI. The resource provided on this page are available on request as metadata for resources which have restricted access and will be made available only on request."</p>
Resource locator	
Unique resource identifier	
Code	a1369a12-b462-4fee-8b83-658c5feec82a
Presentation form	
Edition	1
Dataset language	eng
Metadata standard	
Name	ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata
Version	1.1
Dataset URI	https://data.iar.dpi.nsw.gov.au/dataset/a1369a12-b462-4fee-8b83-658c5feec82a
Status	completed
Spatial reference system	
Authority code	GDA94 Geographic (Lat\Long)

Code identifying the spatial reference system		4283
Topic category		Ariculture
Keyword set		
keyword value		AGRICULTURE-Crops
Originating controlled vocabulary		
Title		ANZLIC Search Words
Reference date		2008-05-16
Geographic location		
West bounding longitude		147.277222
East bounding longitude		147.463989
North bounding latitude		-35.187577
South bounding latitude		-35.061777
NSW Place Name		Wagga Wagga
Vertical extent information		
Minimum value		-100
Maximum value		2228
Coordinate reference system		
Authority code		urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system		5711
Temporal extent		
Begin position		2023-07-01
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Constraint set	
Use constraints	This data is provided under a Creative Commons Attribution 4.0 licence http://creativecommons.org/licenses/by/4.0 Attribute 'DPI' in publications using this data.
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