Title	Identifying optimal combinations of APR resistance genes to Septoria tritici blotch DPI2304-007RTX
Abstract	"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.

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.`" |

Resource locator

Unique resource identifier

Code	df4a9c28-6d7c-4833-982f-41b529b6b129

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/df4a9c28-6d7c-4833-982f-41b529b6b129
Status	completed

Spatial reference system

Authority code	GDA94 Geographic (Lat\Long)

Code identifying the spatial reference system	4283

Topic category	Agriculture

Keyword set

keyword value	AGRICULTURE-Crops

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	147.310181
East bounding longitude	147.43103
North bounding latitude	-35.183087
South bounding latitude	-35.052783
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	2021-01-01
End position	N/A

Dataset reference date

Date type	creation
Effective date	2024-05-13

Resource maintenance

Maintenance and update frequency	unknown

Contact info

Organisation name	DPI
Full postal address	contact@dpi.nsw.gov.au
Telephone number	02 6391 3000
Email address	contact@dpi.nsw.gov.au
Responsible party role	pointOfContact

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.
Limitations on public access	

Scope

Scope	dataset

Responsible party

Contact position	Data Broker
Organisation name	DPI
Full postal address	contact@dpi.nsw.gov.au
Telephone number	02 6391 3000
Email address	contact@dpi.nsw.gov.au
Web address	**https://www.dpi.nsw.gov.au**
Responsible party role	pointOfContact

Metadata point of contact

Contact position	Data Broker
Organisation name	DPI
Full postal address	contact@dpi.nsw.gov.au
Telephone number	02 6391 3000
Email address	contact@dpi.nsw.gov.au
Responsible party role	distributor

Metadata date

Metadata date	2024-05-13

Metadata language

Metadata language	eng