

Table S1 Wheat germplasm from the CIMMYT (International Maize and Wheat Improvement Centre) Australia ICARDA (International Centre for Agriculture in the Dry Areas) Germplasm Evaluation (CAIGE) program

Line	Source	Pedigree
104:ZIF14	ICARDA	SEKSAKA-6/IZAZ-8
105:ZIF14	ICARDA	SEKSAKA-6/IZAZ-8
12:ZIZ11	ICARDA	Not available
56:ZWB11	CIMMYT	Not available
172:ZWB11	CIMMYT	Not available

Table S2 Australian wheat cultivars used in this study

Cultivar name	Year of release	Breeder
Carnamah	1996	Department of Agriculture and Food, Western Australia
Cobra	2011	LongReach Plant Breeders
Cosmick	2014	InterGrain
Eagle Rock	2004	Enterprise Grains Australia
Emu Rock	2011	InterGrain
Hydra	2014	InterGrain
Mace	2008	Australian Grain Technologies
Machete	1985	South Australia Research and Development Institute
Magenta	2007	InterGrain
Phantom	2012	LongReach Plant Breeders
Scepter	2015	Australian Grain Technologies
Wyalkatchem	2001	InterGrain
Yitpi	1999	South Australia Research and Development Institute

Table S3 The panel of 12 *Parastagonospora nodorum* isolates derived from Phan et al. (2020) used in this study to assess the five CAIGE wheat lines

Isolate ID	Location	Year
15FG114	Southern Brook	2014
15FG119	Southern Brook	2014
15FG49	Muresk	2015
RAC2182_2	Northam	2015
SN15	Western Australia	2001
WAC13071	Geraldton	2005
WAC13073	Geraldton	2005
WAC13524	Geraldton	2011
WAC13532	Geraldton	2011
WAC13617	Geraldton	2012
WAC8384	Geraldton	1990
WAC8410	Badgingarra	1991

Table S4 Effector sensitivity profiles of the two parental wheat lines ('105:ZIF14' and '56:ZWB11') and effector profiles of the *Parastagonospora nodorum* and *Pyrenophora tritici-repentis* fungal isolates used in this study

Organism	Description	ToxA	SnTox1	SnTox3	SnTox267	SnTox5	ToxB
Wheat	'56:ZWB11' effector sensitivity score	0.0	0.0	3.3	1.0	0.0	0.0
	'105:ZIF14' effector sensitivity score	0.0	0.0	0.0	4.0	0.0	0.0
	'56:ZWB11' effector sensitivity rating	Insensitive	Insensitive	Sensitive	Mild sensitivity	Insensitive	Insensitive
	'105:ZIF14' effector sensitivity rating	Insensitive	Insensitive	Insensitive	Strong sensitivity	Insensitive	Insensitive
<i>Parastagonospora nodorum</i>	Northam_WGT	Presence	Presence	Presence	Presence	Presence	NA
	16FG168	Presence	Presence	Presence	Presence	Presence	NA
<i>Pyrenophora tritici-repentis</i>	Ptr_race 1	Presence	NA	NA	NA	NA	Absence
	Ptr_race 2	Presence	NA	NA	NA	NA	Absence

NA – not applicable

Table S5 Comparative mapping of 1BS QTL for resistance to tan spot

Population	QTL name	Phys. interval (Mbp) ¹	Gen.map. interval (cM)	Ave. LOD/-log ₁₀ (P)	Ave. %GV / Cumulative Marker Effect ²	Trait	Source of allele that reduces trait value	Reference
DH105 x 56	<i>QTs.cur</i> -1B	18.5-37	185-223	21.53	0.35	Race1 and race 2, seedling	105:ZIF14	This study
IGW2574/Annuello	1B	NA	13.5 – 14.8	2.2	9.00	Tan spot severity (booting)	IGW2574	Shankar et al. (2017)
BR34/Grandin	<i>QTs.fcu</i> -1BS	3.6–6.3	13.9 ~ 30.1	5.47	14.00	86-124 (race 2), seedling		Liu et al. (2020); Faris and Friesen (2005)
BR34/Grandin	<i>QTs.fcu</i> -1BS	3.6–6.3	13.9 ~ 30.1	5.94	13.00	DW5 (race 5), seedling		Liu et al. (2020); Faris and Friesen (2005)
BR34/Grandin	<i>QTs.fcu</i> -1BS	3.6–6.3	13.9 ~ 30.1	8.61	29.00	OH99 (race 3), seedling		Liu et al. (2020); Faris and Friesen (2005)
BR34/Grandin	<i>QTs.fcu</i> -1BS	3.6–6.3	13.9 ~ 30.1	8.05	27.00	Pti2 (race 1), seedling		Liu et al. (2020); Faris and Friesen (2005)
192 international wheat diversity panel	TQTL-1B.1	6.9–44.5	8.36 – 53.61	12.83	8.27	Field evaluation (adult)		Taylor et al. (2023)
295 bread wheat collections	1B	32.46	51.29	3.17	0.991/-0.634	Race 1, seedling		Dinglasan et al. (2019)

¹Physical interval based on Chinese Spring reference genome from marker sequences²Effect of the minor allele on the disease severity