Legend (t/ha)

- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- 3.5 - 4.0
- 4.0 - 4.5
- 4.5 - 5.0

NT

QLD

WA

SA

NSW

ACT

VIC

TAS

N

0 90 180   360   540   720 Kilometers

Simulated shire wheat yield long-term median (OZ-Wheat MII, from 1901-2017)

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Legend (%)

🟥	<= -60%
🟧	-60 to -30%
🟧	-30 to -20%
🟨	-20 to -10%
⬜	-10 to 0%
⬛	0 to 10%
🟩	10 to 20%
🟩	20 to 30%
🟩	30 to 60%
🟦	>= 60%

NT

QLD

WA

SA

NSW

ACT

VIC

TAS

N

0 90 180   360   540   720 Kilometers
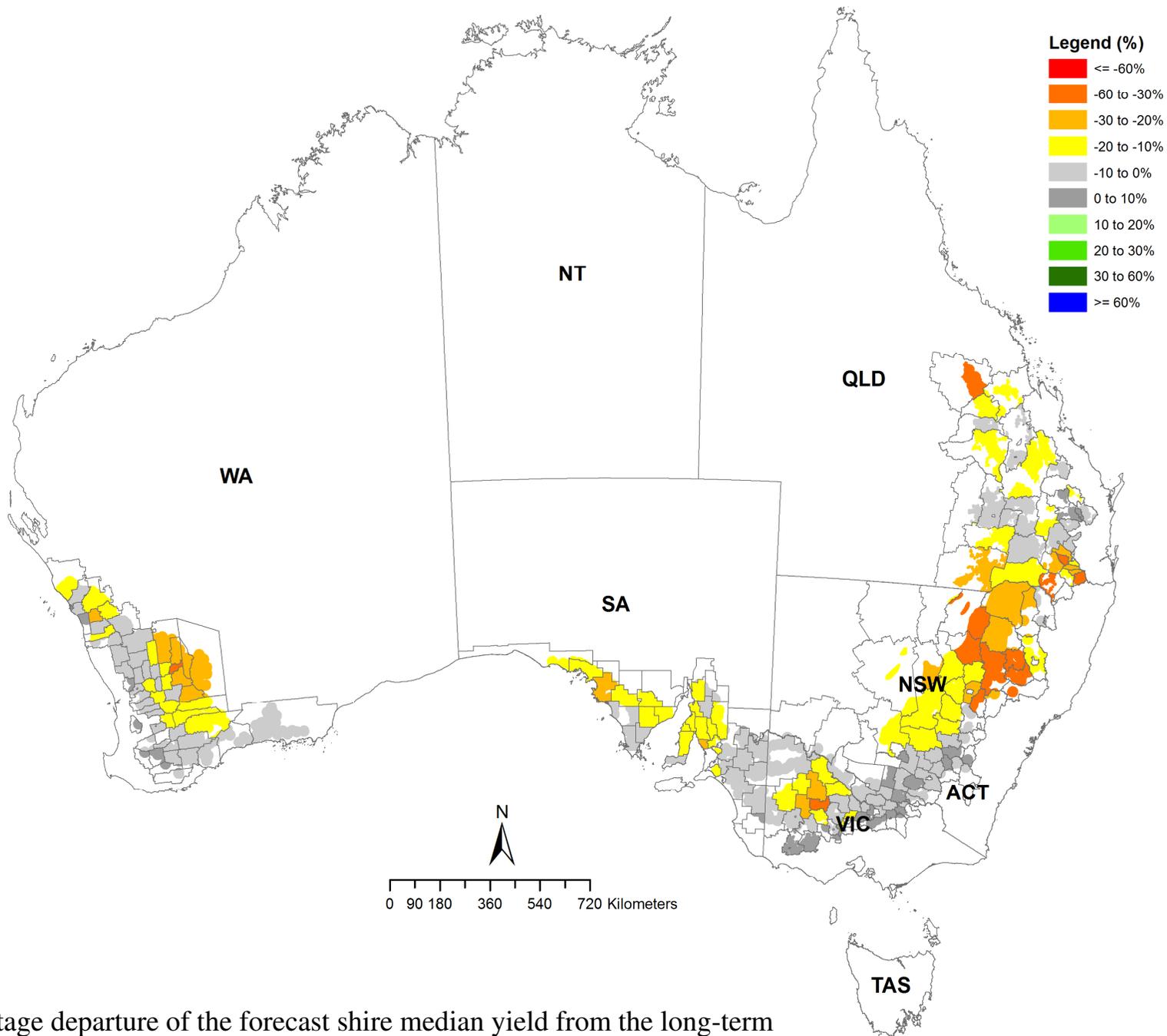
Percentage departure of the forecast shire median yield from the long-term shire median wheat yield (OZ-Wheat MII), given the SOI phase was "rapidly rising" during June-July.

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Legend (%)

- lowest on record
- 0 to 10%
- 10 to 20%
- 20 to 30%
- 30 to 40%
- 40 to 50%
- 50 to 60%
- 60 to 70%
- 70 to 80%
- 80 to 90%
- 90 to 100%

NT

QLD

WA

SA

NSW

ACT

VIC

TAS

N

0 90 180   360   540   720 Kilometers
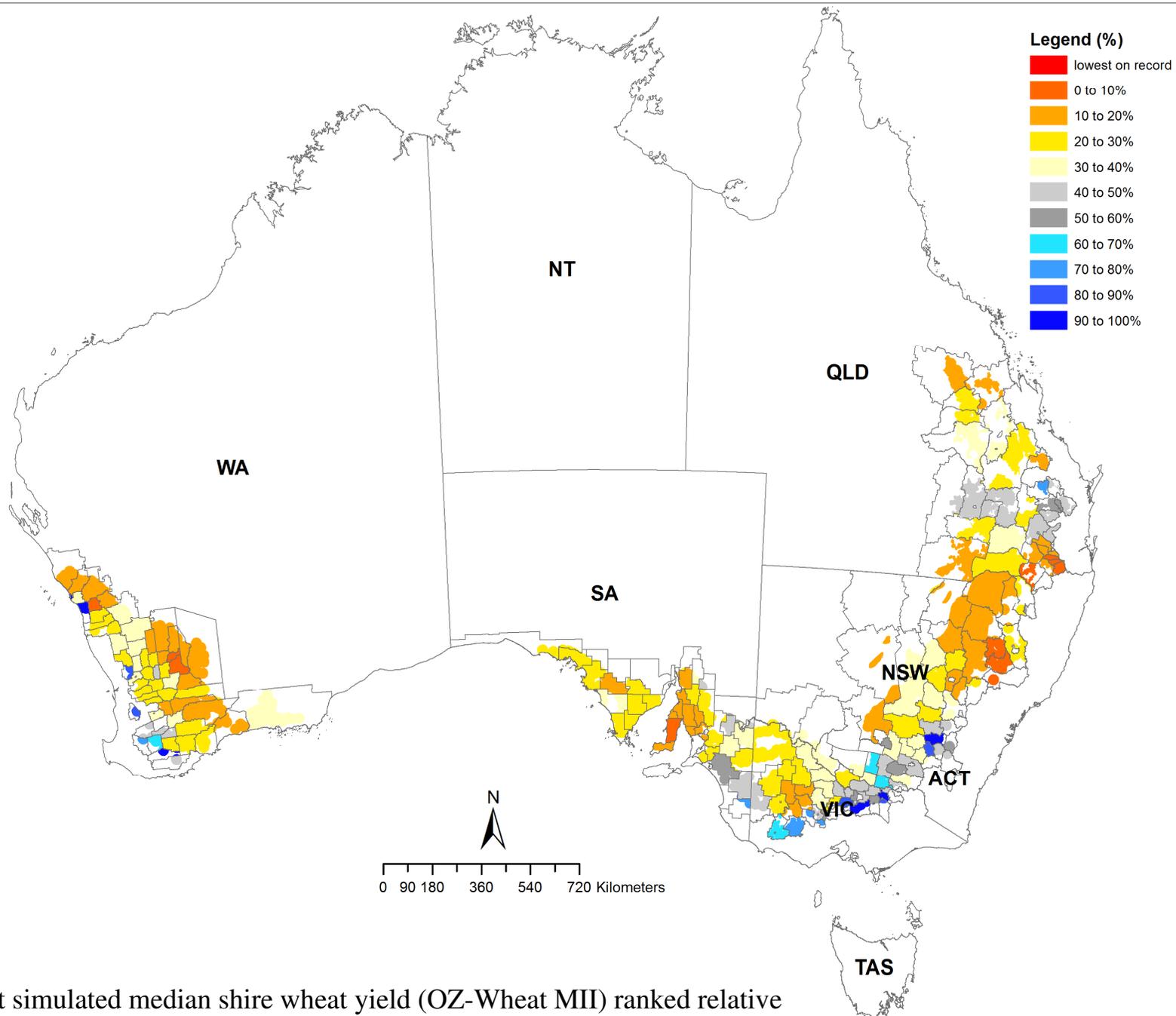
Forecast simulated median shire wheat yield (OZ-Wheat MII) ranked relative
to all years, given the SOI phase was "rapidly rising" during June-July.

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Legend (%)
- 0 - 10%
- 10 - 20%
- 20 - 30%
- > 30%

NT

QLD

WA

SA

NSW

ACT

VIC

TAS

N

0 90 180   360   540   720 Kilometers
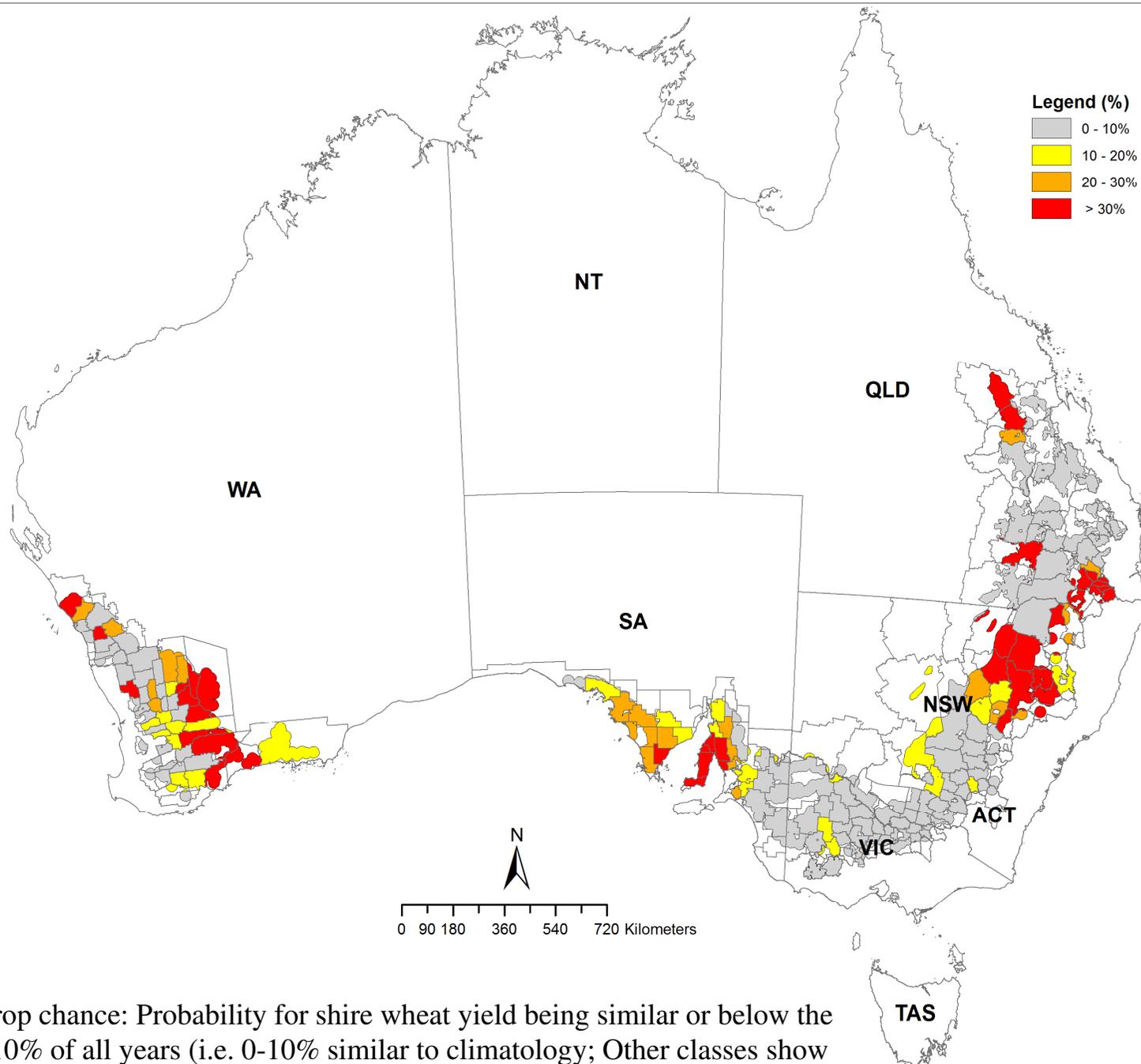
Poor crop chance: Probability for shire wheat yield being similar or below the worst 10% of all years (i.e. 0-10% similar to climatology; Other classes show an increased probability of current predicted shire yield being below the long-term 10th percentile crop yield of all years).

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National Wheat Yield
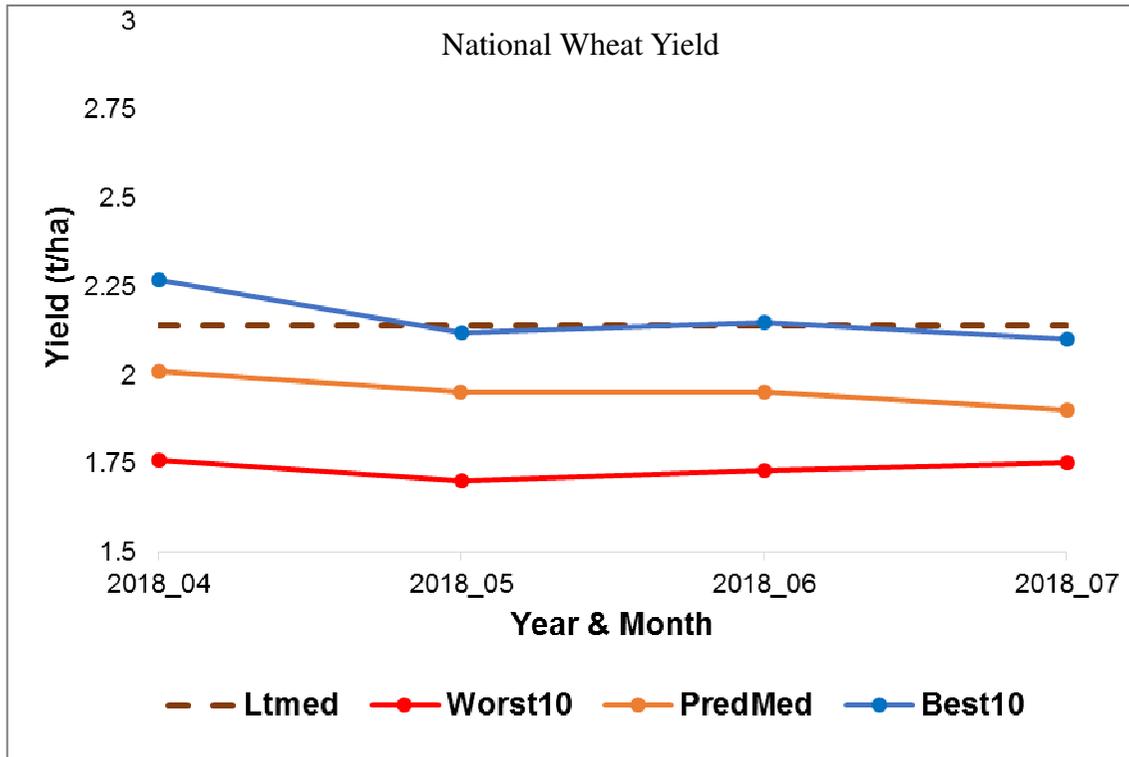
1st August 2018 – State and National wheat outlook range (Worst10 and Best10) and forecast median (PredMed) while Ltmed = Long-term median yield; Pred%= Predicted Percentile ranking of PredMed; DFY= Deviation Percentage of Forecast median from Long-term Median.

Region	Worst10	PredMed	Best10	NoP10	NoP50	NoP90	Ltmed	Pred%	DFY%
AUS	1.75	1.9	2.1	1.66	1.87	2.08	2.14	0.14	-11
NSW	1.71	2.1	2.48	1.56	2	2.44	2.46	0.22	-15
QLD	1.3	1.56	1.97	1.28	1.51	1.91	1.86	0.18	-16
SA	1.89	2.14	2.38	1.85	2.13	2.37	2.41	0.19	-11
VIC	1.91	2.16	2.68	1.62	2.13	2.63	2.44	0.25	-11
WA	1.62	1.75	1.86	1.61	1.75	1.88	1.91	0.17	-8

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OZ-Wheat MII: regional scale crop simulation model developed by UQ QAAFI.

Descriptive note:

The seasonal wheat outlook is based on the integration of (i) a simple agro-climatic wheat stress index model (Oz-Wheat MII) (i.e. Bare fallow routine - Ritchie, 1972; Wheat stress index model adapted from - Fitzpatrick and Nix, 1969; Nix and Fitzpatrick, 1969), which is sensitive to water deficit or excess during the growing season, (ii) actual climate data up to the forecasting date and (iii) projected climate data after that date. These projected data are drawn from historical analogue years based on similarity to the prevailing phase of the Southern Oscillation Index (SOI) (Stone et al., 1996). The Oz-Wheat model is *run from end of the previous wheat crop the year before sowing* in order to account for the influence of the summer fallow on starting soil moisture conditions. The model input parameters for each shire (i.e. potential available water content, planting rain & stress index period) have been selected based on the best fit when calibrated against actual shire wheat yields from Australian Bureau of Statistics (ABS) for the period 1976 – 2000, 2005, 2010 & 2015 (MII). Cross validated spatial correlation when predicting the shire wheat yields for the 2000 season (MI) was 0.8 across all main wheat producing shires in Australia (Potgieter et. al., 2006). For the updated MII 75% of the 237 shire have R2 > 0.60.