INFLUENCE OF SOWING TIME ON WHEAT VARIETY AT COOROW IN 2009

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AIM

To support growers with agronomic decisions such as sowing time and variety selection to enhance industry profitability through improved wheat yields and grain quality.

BACKGROUND

Twenty commercially popular or recently released wheat varieties were sown at three sowing times at Coorow to provide growers with useful information to understand the impact of sowing time on the yield and quality. This trial is one of a state wide set of trials conducted by DAFWA's GRDC funded project 'Variety specific agronomy for wheat yield and quality in the Western Region'.

TRIAL DETAILS

Property	Michael Bothe, Coorow
Plot size & replication	20m x 1.54m x 3 replicates
Sowing date	13/05/09 (dry sown, rained 20/05/09 effective sowing date), 02/06/09, 15/06/09
Seeding rate	75 kg/ha
Fertiliser (kg/ha)	100 kg/ha Agstar Extra drilled below + 50 kg/ha Urea topdressed at seeding
Herbicides	For each sowing time: SpraySeed, Treflan and Dominex IBS Post emergence sprays: Jaguar, Ally and Lontrel
Growing Season Rainfall	May-Sept: 267mm; Jan-Apr: 28mm

RESULTS

Table 1: Yield, quality and grade of wheat sown at Coorow.

	Grain Yield (t/ha)				Protein (%)				Screening (%)		
	20 May	2 Jun	15 Jun	Av t/ha (% Wyalk)	20 May	2 Jun	15 Jun	Av	20 May	2 Jun	15 Jun
Axe	3.50	3.38	2.20	3.03 (82)	13.7	11.0	11.9	12.2	2.7	3.1	3.0
Binnu	4.23	3.44	2.95	3.54 (96)	11.9	10.2	10.5	10.9	4.9	4.8	7.3
Bumper	4.73	3.69	3.20	3.87 (105)	11.9	10.3	11.2	11.1	3.2	3.6	4.9
Calingiri	4.05	3.26	2.79	3.37 (91)	12.8	11.0	12.1	12.0	2.6	2.8	3.3
Carnamah	3.90	3.67	2.87	3.48 (94)	12.7	10.8	11.6	11.7	3.4	2.9	3.9
EGA Bonnie Rock	4.29	3.55	3.03	3.62(98)	12.5	10.6	11.3	11.5	4.8	4.6	6.0
Espada	4.04	3.65	2.84	3.51 (95)	12.4	10.8	12.0	11.7	3.9	4.1	5.4
Fang	3.31	2.90	2.57	2.92 (79)	13.1	10.6	12.0	11.9	15.3	6.7	11.0
Fortune	3.75	2.95	2.67	3.12 (84)	12.1	11.6	11.8	11.8	2.5	2.6	3.5
Gladius	3.70	3.51	2.87	3.36 (91)	13.2	10.7	12.0	12.0	3.3	3.9	4.1
Katana	4.17	3.94	3.15	3.75 (101)	12.8	10.5	11.8	11.7	3.7	3.4	3.6
King Rock	4.52	3.83	3.11	3.82 (103)	12.5	10.6	11.6	11.6	3.6	3.3	5.5
Lincoln	3.58	3.44	3.03	3.35 (91)	12.6	10.5	11.2	11.5	6.9	4.9	6.2
Mace	4.08	3.94	3.43	3.82 (103)	11.2	10.2	10.4	10.6	3.2	2.5	3.6

Magenta	3.61	3.26	2.77	3.21 (87)	13.2	11.3	11.7	12.1	5.4	4.8	4.9
	Grain Yield (t/ha)			**Av t/ha**	**Protein (%)**				**Screening (%)**		
	20 May	**2 Jun**	**15 Jun**	**(% Wyalk)**	**20 May**	**2 Jun**	**15 Jun**	**Av**	**20 May**	**2 Jun**	**15 Jun**
Wyalkatchem	4.37	3.68	3.06	3.70 (100)	12.1	10.4	11.2	11.2	1.7	1.3	2.4
Yandanooka	3.32	3.09	2.63	3.01 (81)	13.3	11.2	12.4	12.3	3.1	3.4	6.1
Zippy	3.67	3.94	3.34	3.65 (99)	12.5	10.2	11.5	11.4	3.2	3.4	3.1
Ave within each TOS	3.94	3.54	2.95		12.5	10.7	11.6	11.6	4	3	4
TOS (lsd)	<.001	0.19			0.001	0.47			0.02	0.6	
Var (lsd)	<.001	0.31			<.001	0.49			<.001	1.3	
Var (lsd) between TOS	ns				ns				0.012	2.2	
Var (lsd) within TOS										2.2	
%CV	9.6				4.5%				7%		

COMMENTS

- Crop yields declined by an average of 31 kg/ha/day when sowing was delayed from the 20th May to the 2nd June. Delaying seeding from 2nd June to the 15th June resulted in an average yields decline of 45 kg/ha/day. Note: the first sowing treatment at Coorow was dry sown on the 14th May. Rain initiated germination of this treatment on 20th May.
- There were not any significant interactions between varieties in their response to delayed sowing time from 20th May to the 15th June. The top performing AH/APW varieties were Carnamah, EGA Bonnie Rock, Espada, Katana, King Rock, Mace, Scout, Wyalkatchem and Zippy. Screenings of these varieties was less than 5% at each sowing time.
- The varieties Binnu, EGA Bonnie Rock, Espada, Fang, Lincoln and Yandanooka produced screenings greater than 5% when sown in mid June.

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