Long, short and mid maturing variety shandy

Chris O'Callaghan, Executive Officer & Clare Johnston, R & D Coordinator Liebe Group





To determine the yield and quality value of responding to seasonal conditions through the 'shandying' of several wheat varieties.

Background

With increasing seasonal variability it is important for growers to be able to respond to changing weather conditions. 'Shandying' of two or more varieties with different maturity ranges gives the crop potential to maximize rainfall use in an unpredictable climate as well as mitigate the risk of frost. Katana is a slightly short season variety, Scout has mid to long maturity, and Mace is used as a control with short to mid maturity. All varieties used are APW classified.

Trial Details					
Property	Catalina Farms, East Coorow				
Plot size & replication	2.5m x 50m x 3m				
Soil type	Sandy loam				
Soil pH	4.9				
EC	0.032 dS/m				
Paddock rotation	2009 wheat , 2010 lupins				
Variety	as per protocol				
Seeding date	27/5/11				
Seeding rate	80 kg/ha				
Fertiliser	27/5/11: 70 kg/ha Mallee,				
	17/6/11: 46 kg/ha Urea				
Herbicides	26/5/11: 2 L/ha Glyphosate, 2.5 L/ha Boxer Gold				
Growing Season Rainfall	330mm				

Results

The trial conducted showed there was some variation in yield, however, not by a significant amount (Table 1). The shandles of Katana, Scout and Katana, Scout and Mace resulted in a higher average protein than each variety individually. Due to unfavourable late rain all treatments suffered from sprouting of the grain and therefore were graded FED1 pending falling numbers tests.

 Table 1: Average yield and quality of wheat varieties and shandies at East Coorow.

Variety	Yield (t/ha)	Protein (%)	Screenings (%)	Hectolitre (g/hL)	Sprouted	Grade
Katana	4.02	9.30	2.18	80.55	21	FED1
Scout	4.49	9.17	2.15	80.51	19	FED1
Mace	4.67	9.27	2.36	80.73	15	FED1
Katana & Scout	4.30	9.83	2.29	81.06	24	FED1
Katana, Scout & Mace	4.46	9.85	1.92	80.85	13	FED1
L.S.D.	NS	NS	NS	NS		
CV %	12.8	4.7	28.9	1.7		

Note: Graded FED1 pending falling numbers test

Comments

No significant differences were observed between treatments. The maturity dates of the varieties chosen for this trial were not different enough for a larger expression of yield differences. Future work on this concept should include varieties with more extreme maturity differences.

Acknowledgements

This demonstration is supported by funding from the Australian Government Department of Agriculture, Fisheries and Forestry under the FarmReady initiative, part of Australia's Farming Future and the Grains Research and Development Corporation.

Thanks to Rod Birch for the use of the land and to Justin Passamani and Nadine Hollamby for their assistance in conducting the trial.

Paper reviewed by: Darshan Sharma, DAFWA

Contact

Chris O'Callaghan, Liebe Group chris@liebegroup.org.au (08) 9661 0570