

3.2.4 CSIRO ADVANCED WINTER WHEAT TRIALS (INVERLEIGH VIC, CONMURRA SA)

Author: Colin Hacking

Researchers:

Susan Kleven, Dr Richard Richards, CSIRO Canberra, Wes Arnott, Rohan Wardle, Gary Sheppard, Colin Hacking, Stacey Alexander, SFS Ltd, Trent Potter, SARDI.

Location:

SFS Inverleigh Research site and Conmurra, SA

Acknowledgements:

Thanks to the Grains Research and Development Corporation for funding this programme.

Summary:

There are some new lines that are worthy of consideration by growers in the high rainfall zone of southern Australia. Tribute, a New Zealand variety topped the trials, however there are 2 new CSIRO lines which will be in limited supply this year, namely 95102.1 and H123.1 which performed very well.

Background:

The longer growing season of the HRZ region compared to the northern drier environments, means that we should be selecting varieties suited to our region. This is ongoing work by Southern Farming Systems Ltd in conjunction with CSIRO to release higher yielding and more profitable varieties for our producers.

Objectives:

To test a range of new winter wheat lines across southern Australia, with the aim of selecting superior genotypes.

Methodology:

The material was grown at 3 sites, however at the date of this publication data from 2 sites was available. The material was grown in replicated trials (4 reps) and set up in a randomized block design.

Discussion

The top yielding variety is Tribute. There are two other lines that are being considered for release by CSIRO and these are 95102.1 which yielded 112.77% of the overall site mean yield and H123.1 which yielded 106.36% of the overall site mean yield.

95102.1 is a very adaptable line with very high yield potential, yielding over 11 T/Ha in a trial in the central tablelands of northern NSW. It has done extremely well in both grazed and ungrazed trials. It has good resistance to all 3 rusts. It is a red grained feed wheat type, earlier in maturity than Tennant but later than MacKellar

H123.1 has done particularly well in Victoria and Northern NSW. It is early flowering, similar to Marombi and earlier than MacKellar. It has good resistance to all 3 rusts. It is a red grain feed type

Of the commercially available lines, Marombi did very well giving superior yields to MacKellar and Kellalac. Tennant and Wedgetail did poorly.

It is important to consider results from previous years and other factors before making a final decision on the choice of variety.

Results and Discussion

Inverleigh, Victoria					Conmurra, South Australia			% average yield both sites
Entry	Line	T/ha	% site average	Rank	Yield T/ha	% site average	Rank	
32	Tribute	9.28	116	1	9.26	110	5	113.15
17	95102.1	9.02	113	3	9.47	113	3	112.77
8	K89.44	8.88	111	4	9.61	114	1	112.69
9	K37.18	8.71	109	6	9.54	113	2	111.22
44	8.31.6	9.28	116	2	8.89	106	10	110.90
39	96013.88	8.70	109	7	9.09	108	8	108.49
41	97549	8.25	103	15	9.22	110	6	106.42
15	H123.1	8.83	111	5	8.60	102	24	106.36
2	Marombi	8.58	107	9	8.79	104	14	105.95
10	H267.3	8.48	106	13	8.90	106	9	105.93
16	95029.12	8.60	108	8	8.73	104	18	105.73
40	97436.174	8.54	107	11	8.71	104	19	105.20
21	96192.169	8.10	101	20	9.16	109	7	105.13
18	95192.14	8.57	107	10	8.64	103	20	104.96
6	LH49 E2	7.91	99	25	9.32	111	4	104.90
14	H150.2	8.17	102	18	8.79	104	15	103.36
11	H230.3	8.04	101	22	8.82	105	12	102.76
38	95230	8.26	103	14	8.55	102	25	102.50
42	97671	8.52	107	12	8.26	98	29	102.40
25	97949.82ÿ	8.15	102	19	8.61	102	21	102.21
23	97207.84ÿ	8.00	100	23	8.75	104	16	102.07
26	97978.62ÿ	7.90	99	26	8.83	105	11	101.92
5	Kellalac	8.06	101	21	8.61	102	22	101.65
3	MackELLAR	7.99	100	24	8.60	102	23	101.12
29	CFR02.193	7.81	98	29	8.74	104	17	100.84
12	H229.3	7.68	96	32	8.81	105	13	100.41
27	CFR02.184	7.74	97	31	8.52	101	26	99.10
28	CFR02.183	8.22	103	17	7.98	95	34	98.84
35	97261.123	7.76	97	30	8.41	100	27	98.57
7	LH46 A9	7.86	98	27	8.12	96	31	97.43
36	95015	7.66	96	34	8.19	97	30	96.59
31	CFR03.1010.3	8.23	103	16	7.55	90	38	96.41
22	97077	7.52	94	37	8.30	99	28	96.38
19	96054.1	7.81	98	28	7.87	94	36	95.65
24	97835.141	7.61	95	35	7.95	94	35	94.87
20	96188.18	7.55	95	36	8.00	95	32	94.81
13	H154.4	7.68	96	33	7.84	93	37	94.63
4	Tennant	6.94	87	40	7.99	95	33	90.88
33	5869.3.3	7.37	92	38	7.21	86	42	88.95
30	CFR03.1011.13	7.04	88	39	7.53	89	39	88.79
37	95195	6.58	82	42	7.42	88	40	85.25
1	EGA_WEDGE	6.86	86	41	6.82	81	43	83.44
43	97906.108	6.31	79	44	7.27	86	41	82.68
34	5635.92	6.53	82	43	5.86	70	44	75.72
Average		7.99			8.41			