

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

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Location:

SFS Inverleigh Research site and Conmurra, SA

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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 | | | |