

**Results:**

Variety	Yield kg/ha	Yield % Brennan	Yield % site Mean	BYDV cf Unsprayed	Protein %	Test Wt	Screenings
AGHW-001	4,620	89%	82%		10.0	76.2	6.29
Brennan	5,182	100%	92%		10.3	77.8	7.71
AGHW-003	3,381	65%	60%		8.9	78.6	6.61
AGSW-001	5,316	108%	94%		8.7	78.6	3.56
Brennan	4,901	100%	87%		10.0	77.6	6.18
Braewood	5,993	122%	106%		9.5	81.8	1.95
Sunstate	3,998	75%	71%		12.5	81.2	0.98
Brennan	5,334	100%	95%		10.3	79.6	6.28
Marombi	6,311	118%	112%		9.3	77.6	2.31
211	5,810	104%	103%		9.4	75.2	5.58
Brennan	5,572	100%	99%		9.5	80.2	6.48
2119	5,908	106%	105%		9.3	77.0	3.89
MacKellar Unsprayed	5,731	103%	102%		8.7	76.8	7.29
MacKellar timing 1	6,469		115%	113%	8.6	75.0	6.66
MacKellar Timing 1 & 2	6,781		120%	118%	9.1	76.0	7.36
Brennan Unsprayed	5,572		99%		10.9	76.2	4.19
Brennan Timing 1	5,505		98%	99%	10.2	78.8	5.32
Brennan Timing 1 & 2	5,908		105%	107%	10.4	76.8	5.98
Kellalac Unsprayed	5,810	104%	103%		9.2	79.8	2.50
Kellalac Timing 1	5,944		105%	102%	10.6	78.8	1.77
Kellalac Timing 1 & 2	6,103		108%	105%	8.9	80.6	2.72
Chara	6,701	126%	119%		10.1	81.2	2.70
Brennan	5,322	100%	94%		9.6	80.4	5.22
Mitre	7,061	133%	125%		9.8	80.0	2.50
Site Mean	5,635		100%		9.7	78.4	4.67

**BYDV Key**

Timing 1 : 250 ml/ha Dominex + 0.5% Hasten oil 3rd July

Timing 2 : 250 ml/ha Dominex + 0.5% Hasten oil 1st August

### 5.3 EVALUATION OF DUAL PURPOSE WHEAT CULTIVARS - CAMPBELL TOWN TASMANIA

**Location:**

"Riccarton", Campbell Town Tasmania

**Researchers:** Geoff Dean (SFS Ltd)  
Simon Munford (DIWE)
**Acknowledgements:**

Thanks to Crosby Lyne for preparing ground and fencing, Brett Davey

**Growing season rainfall (Feb-Nov):** 377 mm**Background:**

Dual purpose oats, and to a lesser extent wheat, have been traditionally grown in many areas of Tasmania. In the mid 1980's dual purpose wheat cultivars such as Isis and Macquarie proved to be very susceptible to stripe rust and area declined significantly to almost zero. With the release of rust resistant dual purpose wheat cultivars from CSIRO there is again the opportunity to grow wheat for both grazing and grain.



### Aim:

To assess current wheat cultivars and breeding lines for dry matter production, recovery from grazing and grain yield.

### Methodology:

Entries and their origin are listed below:

Tennant	CSIRO
Brennan	CSIRO
Mackellar	CSIRO
LH49E2	CSIRO
LH50M16	CSIRO
Teesdale	Wrightson Seeds

### Results and Discussion:

Establishment although late was satisfactory and the trial received good early rains in April. Winter rainfall was higher than average but the trial site received little waterlogging.

*Dry matter production:* There were no significant differences in pooled (total) dry matter production between the cultivars ( $P=0.55$ ) with a mean of 3t/ha across all lines. Similarly there were no significant differences in either of the two dry matter cuts although there was a trend towards lower production from LH49E2 in the first cut ( $P=0.09$ , data not presented).

**Sowing date:** 26<sup>th</sup> March 2003

### Harvest date:

Dry matter - 11<sup>th</sup> June, 21<sup>st</sup> August 2003  
Grain - 15<sup>th</sup> January 2004

### Fertiliser:

basal - 150kg/ha 9:13:17  
topdressing - 50kg N/ha

**Weed Control:** 700ml/ha dicamba, 1.5l/ha MCPA  
After the first dry matter cut was taken the trial was grazed intensively. Nitrogen was topdressed after the second dry matter cut.

Two triticale varieties – Jackie and a Wrightson Seeds line were also planted but the stock showed a preference for these over wheat and they were consequently eaten more severely and never fully recovered. In future trials plots will be mown to avoid this problem.

*Grain production:* Given the dry finish to the season grain yields were relatively high. LH49E2 and ISR619-30 were significantly higher yielding than Tennant, MacKellar and Brennan. LH49E2 is a relatively late maturing line and was able to capitalise on 30mm of rainfall later in November.

**Table 57: Dual Purpose Cereal Trial -Dry Matter Production and Grain Yields From Campbell Town**

Variety	Dry Matter Yield (t/ha)	%Tennant
Tennant	3.08	100.0
MacKellar	3.00	97.4
Teesdale	2.97	96.4
Brennan	2.94	95.5
LH50M16	2.94	95.5
LH49E2	2.80	90.9
LSD	nsd	

Variety	Grain Yield (t/ha)	%Tennant
LH49E2	6.09	117.1
Teesdale	6.02	115.8
LH50M16	5.64	108.5
Tennant	5.20	100.0
MacKellar	5.15	99.0
Brennan	4.68	90.0
LSD	0.51	

### Conclusions:

The lines LH49E2 and Teesdale show great promise as dual purpose cultivars. Like MacKellar, LH49E2 is a BYDV resistant, although very little BYDV was apparent in the trial. LH49E2 is a late maturing cultivar but in 2002-03 also performed well despite a very dry finish. Teesdale was notable in 2003-04 for both its good recovery from grazing and grain yield. Wrightson seeds are currently multiplying this cultivar for release.

In the two dual purpose trials conducted to date the grain yield of MacKellar has not been impressive whereas in grain-only trials the yield of MacKellar has been consistently higher than that of Tennant.

Provided disease pressure does not become an issue, dual purpose wheats are an attractive option particularly where an initial irrigation is possible.