

## 2011–2012 summer forage trial at Tungamah

**Dale Grey**

DPI Victoria, Cobram

### Key points

- Forage sorghum and millets achieved the highest yields (5–30 tonnes of dry matter (DM) per hectare) during the summer forage trial of 2011–2012.
- Lab lab was the most promising forage legume although DM yields were low.
- Other legumes along with the brassicas and winter cereals either failed to emerge or achieved only sparse plant numbers.

### Aim

The aim of the trial was to evaluate whether growers could make productive use of the out-of-season rainfall that has fallen during the past few summers and which is predicted to become more common.

The productivity of summer and winter forage species was assessed during summer as part of the *Grain and Graze 2* adaptive forage program.

### Method

Weeds were knocked down with glyphosate before sowing the trial forage species. The trial was sown into marginal moisture on 15 December 2011 using a cone seeder. Dry matter (DM) cuts were taken on 4 April 2012 on those plots that had sufficient evenness of growth.

The species planted were:

- Shirohie (Japanese) millet sown at 10kg/ha
- French grain millet sown at 10kg/ha
- Pearl grain millet sown at 10kg/ha
- Sprint forage sorghum sown at 10kg/ha
- Hunnisweet forage sorghum sown at 10kg/ha
- Pacer grain sorghum sown at 10kg/ha
- Maize sown at 25kg/ha
- Wedgetail winter wheat sown at two sowing rates — 60kg/ha and 120kg/ha.

- Bouncer hybrid brassica (turnip x Chinese cabbage) sown at 4kg/ha
- Taurus winter habit canola sown at 2kg/ha
- L023B-23 soybean sown at 50kg/ha
- Djakal soybean sown at 50kg/ha
- Emerald mungbeans sown at 20kg/ha
- Butterfly peas sown at 25kg/ha
- Pigeon pea sown at 10kg/ha
- Ronagi lab lab sown at 25kg/ha
- Red Caloona cow pea sown at 15kg/ha.

### Observations and comments

Plant emergence was patchy as no significant rain fell during December 2011. Maize, soybean and pearl millet failed to establish. By early February 2012 some of the forage grasses were 30cm tall while the butterfly peas had not emerged at all. The Boosey Creek flooded during early March covering the plots for about two weeks. Butterfly peas emerged after the flood and grew rapidly. Mungbeans, wheat, grain sorghum, pigeon peas and the brassicas were abandoned due to poor plant numbers.

Despite the late sowing and the flooding several forage cereals yielded well (see Table 1). Lab lab was the most impressive of the forage legumes suggesting it was quite tough and that with a better establishment could show promise. The trial results were highly variable as shown by a high coefficient of variation (CV) of 60%, which ideally

**TABLE 1 Dry matter yield for a range of summer fodder crops at Tungamah**

Fodder crop	DM yield (t/ha)	DM (%)
Sprint forage sorghum	8.5	25.8
French millet	5.1	31.0
Hunnisweet forage sorghum	4.8	20.5
Japanese millet	2.2	22.9
Lab lab forage legume	1.7	23.1
Cow pea forage legume	1.0	20.6
Butterfly pea forage legume	0.5	22.8
LSD 0.05	3.8	5.2
CV%	60.7	12.5
P	0.007	0.016



Sprint forage sorghum showing two metres of growth

needs to be below 20%. The DM percentage varies with plant maturity with French millet in late grain fill by the end of the trial but Hunnisweet sorghum still vegetative with large green leaves.

The results are similar to the DM production achieved during the 2010–11 summer forage trials, where forage sorghum yielded the highest followed by the millets.

#### SPONSORS

This project is funded by the GRDC and Caring for our Country through the northern Victoria *Grain and Graze 2* (GRDC project BWB00018).

Thanks also go to farmer co-operators Josh and Jenny Buerckner.

#### CONTACT

**Dale Grey**

DPI Victoria, Cobram

T: (03) 5871 0600

E: [dale.grey@dpi.vic.gov.au](mailto:dale.grey@dpi.vic.gov.au)

## Want to do business with someone who understands agribusiness?

Contact your local agribusiness specialist.

 **Andrew Hannaford**

 **0428 541 362**

 **Clare McDonald**

 **02 6023 5004**

**SUNCORP BANK**   
Agribusiness