

Pasture legume biomass and seed (pod) yield and the impact of budworm at Warradarge

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KEY MESSAGES

- Serradella, both French and yellow, produced large biomass and pod yields at Warradarge by taking advantage of late rains.
- There was greater budworm damage to seed in French serradella compared to yellow serradella.
- Early maturity serradella did not significantly decrease seed loss to budworm predation.

BACKGROUND

The introduction of annual pasture legumes is an accepted means of improving the quantity and quality of pastures, particularly on the poor infertile sands in the West Midlands region. Although serradella is recognized as useful and adapted pasture species for the poorer West Midlands soils, there is little information on the comparative performance relative to other pasture legume options or between the available cultivars of both French and yellow serradella.

This trial aimed to compare the production of different annual legumes in the West Midlands and the associated seed loss to native budworm particularly in regards to serradella.

Methods

Knockdown applied 23rd May, trial sown 29th May. All treatments sown at 10 kg/ha of scarified seed along with 10kg/ha of the appropriate strain of Alosca granular inoculant. 100 kg/ha of super:potash was drilled at sowing.

The trial was ungrazed through the growing season and total dry matter and pod/seed yields were taken 6th November.

Results

The highest yielding treatment was Santorini yellow serradella with in excess of 10 t/ha of total dry matter produce of which over 5t/ha was pod that contained 2t/ha of seed.

In general, both the French and yellow serradellas out yielded all other species although Casbah biserrula and Bartolo bladder clover also produced significant seed yields (940 and 840 kg/ha respectively).

There was greater seed loss due to budworm predation on the French serradella than yellow serradella.

Dalkeith subclover and Hykon rose clover performed poorly at this site which may have been associated with poor root health.

Table 1. Total dry matter and associated pod yield of pasture legumes at Warradarge, 2014

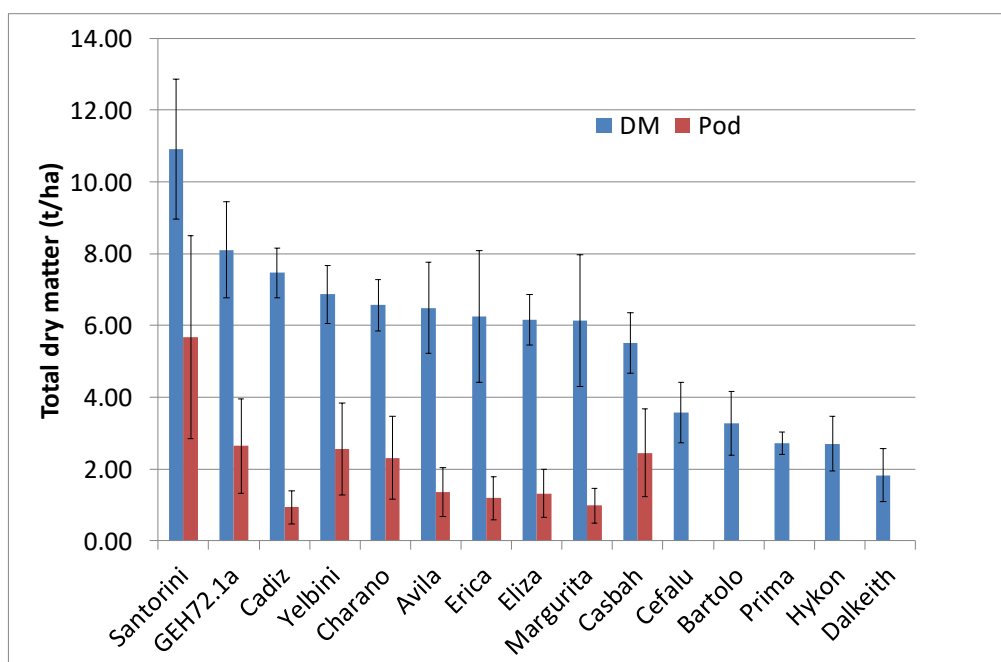


Table 2. Budworm damage (seed loss) and actual seed yield of pasture legumes at Warradarge, 2014

Species	Cultivar	% Budworm loss	Seed yield (kg/ha)
Yellow serradella	Yelbini	3.2	920
	GEH72.1a	1.9	1050
	Charano	4.2	820
	Santorini	4.2	2010
	Avila	9.1	360
French serradella	Eliza	14.0	570
	Margurita	11.6	430
	Erica	14.4	560
	Cadiz	10.6	410
Biserrula	Casbah	7.2	840
Arrowleaf clover	Cefalu	NR	120
Bladder clover	Bartolo	NR	940
Gland clover	Prima	NR	220
Rose clover	Hykon	NR	130
Subclover	Dalkeith	NR	140