



NZ Forage Systems Fact Sheet

Balansa clover

Key Points

1. Balansa is an annual clover that has performed well in trials.
2. Very early maturing with good winter and early spring growth.
3. Under North Island dryland grazing management it is unlikely to set sufficient seed to re-establish.
4. Intolerant of cool winters but can tolerate wet conditions.
5. Later flowering varieties are capable of higher total annual production in long-season environments.

Balansa clover - *Trifolium michelianum*

Balansa is an erect, hollow stemmed, multi-branched annual clover which can grow to over 80 cm. It is generally more prostrate and rambling than Persian and arrowleaf clovers. Balansa is adapted to temperate climates with annual rainfall of 350-800 mm. Early flowering varieties are suited to lower rainfall zones, and later flowering varieties to higher rainfall areas. It can be grown successfully under irrigation.

In colder areas most growth occurs over spring, but it can grow through winter and spring in warmer areas of the North Island. On the East Coast of the NI it is capable of producing 8-10 t/ha during winter and spring. In the SI it can be used as an alternative to subterranean clover where soils are wet in winter and spring.

In the NI there have been very few situations where it has successfully set seed. It is a very prolific flowerer and as it seeds above ground, plants need to be spelled or lightly stocked in the first spring to allow seed to be set. Because the seed is hard it can require more than one year to germinate and plants are not always present in the second winter after planting. Seed set and regeneration has been more successful under extensive grazing systems in the South Island.



Strengths

- Excellent tolerance of waterlogging.
- Adapted to a wide range of soil types and pH ranges.
- Sets large amounts of hard seed if allowed to flower.
- Can be grazed or used for hay.

Limitations

- Not suited to infertile soils.
- Does not like competition at establishment.
- Slow establishment if sown under cold conditions.
- Best suited to areas receiving more than 600 mm rainfall.
- Need to restrict grazing during flowering if seed set is required.

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Establishment

Balansa clover grows across a diverse range of soil types, preferring soils of moderate to high fertility. It is very tolerant of waterlogging. It is not suited to deep sandy soils. It is adapted to both acid and alkaline soils (pH 5.4-9). Autumn sow as soon as autumn soil moisture is adequate or as early as February under irrigation. Good weed control is essential due to Balansa's small seed size and slow early growth. Shallow sowing (<8 mm) or broadcasting followed by rolling is essential. Use 5-8 kg/ha sowing as a single species for hay crops and 2-3 kg/ha in mixtures. If Balansa clover has not previously been sown ensure that seed is inoculated with the correct *Rhizobium* strain (Group C). Phosphorus (with Potassium on deficient soils) should be applied at sowing.

Weed and pest control

Very good weed control is necessary prior to sowing as it is susceptible to competition during establishment. Post emergence weed and/or grass control may be required. Slugs and springtails may be an issue during seedling establishment. Little work has been done on herbicide usage under New Zealand conditions, although some farmers are using 130 g ai/ha *haloxyfop-P* (Crest/Galant) plus 1440g ai/ha *bentazone* (Troy/Basagran) all in 125 litres water /ha with a suitable wetter to successfully control weeds and grasses post emergence. Clovers need to be at 3-5 leaf stage before spraying. If insects are an issue then 500 g ai/ha *chlorpyrifos* (Lorsban) can be added to the mix.

Management

Early grazing encourages the development of additional new stems. Plants remain relatively prostrate when continuously grazed and are very tolerant of regular defoliation while young. Left un-grazed it will grow up to 1 metre tall in spring with stems collapsing and growing horizontally. It does not recover well from a late cut or grazing once stems have begun to run out and the plants are flowering. Well suited to silage or haymaking after 1 to 2 early grazings.

Animal production

This produces high protein, high quality feed (up to 11.5 MJME). Feed nutritive value remains high through to maturity. No livestock disorders have been reported but it may be expected to cause bloat in cattle.

Cultivars

Most seed is imported to New Zealand and seed supplies can be tight. Order seed early. Seed often contains a wide range of genotypes resulting in a range of leaf shapes and markings. Late flowering types have been successfully used in summer dry conditions throughout New Zealand.

Cultivar	Maturity	Notes
Bolta	Early	
Viper	Early	Developed from a selection of Bolta.

