Agwest Bartolo Bladder Clover

*Trifolium spumosum*

Bladder clover is a species new to cultivation in modern agriculture. It is an alternative to sub clover and medic, being more widely adapted, having higher dry matter production and a prolific seeder for pasture persistence. Bladder clover can be grown on a range of soil types from pH 5 to 8.5 and to a wide range of textures. Quantity and quality of forage produced is generally equivalent or better than other current pasture options. Herbicide tolerance in the field has been assessed with Bartolo sensitive to Bromoxynil, Spinnaker and Raptor. Broadstrike appears reasonably safe and Tigrex may offer an intermediate weed control option. Bartolo is less affected by red-legged earth mite than sub-clover or medics.

- New species to modern agriculture
- Ideal replacement for sub clovers
- Adapted to wide range of soil types
- Less affected by RLEM
- Tolerant to some herbicides
- Very high hard seed levels
Seed agronomy table

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flowering</td>
<td>105 days</td>
</tr>
<tr>
<td>Min Rainfall</td>
<td>350</td>
</tr>
<tr>
<td>Hard Seededness</td>
<td>High</td>
</tr>
<tr>
<td>Waterlogging Tolerance</td>
<td>Fair</td>
</tr>
<tr>
<td>Seeding Rate</td>
<td>Kg/Ha</td>
</tr>
<tr>
<td>Dryland</td>
<td>10-14</td>
</tr>
<tr>
<td>High Rainfall / Irrigation</td>
<td>15-20</td>
</tr>
</tbody>
</table>

Enterprises this seed is being used for

- Sheep
- Beef Cattle
- Horse
- Hay & Silage

Strengths

- Productive annual forage tolerant of heavy grazing in medium-low rainfall areas.
- Suited to self-regenerating ley or short-term phase farming systems.
- Protection against false breaks.
- Very well adapted to mildly acid and alkaline sandy-loam and loam soils.
- High level of hard seed enables regeneration after cropping.
- Ideal companion plant in mixtures with other legumes such as medic, subterranean clover or serradella.

Limitations

- Not adapted to waterlogged soils.

Plant Description

Bladder clover is an aerial seeding, self-regenerating annual legume.

Pasture type and use

Bladder clover is a pasture legume for grazing in ley or short-term phase farming systems.

Where it grows

Rainfall: Suited to regions with 325 to 500 mm annual rainfall. with a predominantly autumn-winter-spring distribution.

Soils: Bladder clover grows on a range of soils with pH ranging from 5.0 - 8.0 (CaCl2) and soil
textures, provided they have reasonable fertility. Not tolerant of prolonged waterlogging or salinity.

**Temperature:** Susceptible to severe frosts.

### Establishment

**Companion species:** Compatible with many annual legumes (e.g. subterranean clover, biserrula, serradella, crimson clover, rose clover and gland clover, annual medics) and perennial grasses (e.g. Italian & perennial ryegrass, festulolium, consol lovegrass and Premier digit grass).

**Sowing/planting rates as single species:** 10-15 kg/ha. Sow shallow at 0.5 cm. Rolling after sowing is an advantage. * ensure seed is Goldstrike treated.

**Sowing/planting rates in mixtures:** 1-5 kg/ha * ensure seed is Goldstrike treated with other pasture legumes.

**Sowing time:** Sow bladder clover as close to the break of season in autumn as possible.

**Inoculation:** Goldstrike Treated. The use of Goldstrike XLR8 seed treatment is recommended to reduce damage from insects at seedling stages.

**Fertiliser:** Sow with 100 - 150 kg/ha superphosphate, or super/potash if on sand soils.

### Management

**Grazing/cutting:** Can be heavily grazed in winter. Reduce stocking rate at flowering time.

**Ability to spread:** Many seeds of bladder clover survive ingestion by sheep and can be easily spread around paddocks.

**Weed potential:** There have not been reported cases of bladder clover growing within native vegetation.

**Major pests:** Bladder clover is moderately tolerant to blue green aphid and lucerne flea.

**Major diseases:** It has little or no sensitivity to clover scorch (Kabatiella caulivora) disease. Occasional infections of pseudopeziza leafspot have been observed in high rainfall areas.

**Herbicide susceptibility:** Bladder clover is sensitive to many of the more common broadleaf herbicides including Bromoxynil, Spinnaker¬ and Raptor¬. Broadstrike¬ appears reasonably safe and Tigrex¬ may offer an intermediate weed control option. Grass weeds can be safely controlled with common grass-selective herbicides.
Animal production

**Feeding value:** The feeding value of bladder clover is similar to subterranean clover. Digestibility of bladder clover in spring is usually around 82%, with 22% crude protein, these values decrease with senescence. Grazing trials have shown no differences in live weight change or wool growth between sheep grazing bladder and subterranean clovers.

**Palatability:** Moderately palatable.

**Production potential:** The quantity of forage produced by bladder clover is generally equivalent or better than current pasture options. Peak dry matter yields in small ungrazed experimental swards have ranged between 4 and 7 t/ha.

**Livestock disorders/toxicity:** No livestock disorders have been reported but, as with most legumes, could cause bloat in cattle in very pure bladder clover swards. Levels of formononetin (0.015%) and genistein (0.002%) in bladder clover are lower than in subterranean clover cv Dalkeith and are unlikely to cause a phyto-oestrogen effect in grazing animals.

**Cultivars:** Agwest–Bartolo is the first cultivar of bladder clover commercially released to world agriculture.

**International Contact**

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