Renegade Red Clover

*Trifolium pratense*

Renegade is an erect, early flowering, double cut red clover with improved resistance to southern anthracnose and downy mildew. Renegade is classified as semi-dormant in winter growth habit, and provides more grazing than Ladino clover during hot summer months. Renegade is a short lived forage perennial legume best adapted to temperate regions with high to medium rainfall. It tolerates more soil acidity and poorer soil drainage than alfalfa.

- Excellent hay type for top end forage
- High yielding
- Supreme feed quality
- Good persistence
- High protein
- Disease resistant

Seed agronomy table

<table>
<thead>
<tr>
<th>Leaf Type</th>
<th>Min Rainfall</th>
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<tbody>
<tr>
<td>Large</td>
<td>650</td>
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Hard Seededness | Medium
Waterlogging Tolerance | Fair
Seeding Rate | Kg/Ha
Dryland | 3-4
High Rainfall / Irrigation | 5-8

**Blends using this Seed**

- Spring Graze Blend
- Spring Finishing Blend
- Summer Feed Blend
- Brassica Blend

**Enterprises this seed is being used for**

- Sheep
- Beef Cattle
- Horse
- Hay & Silage
- Viti & Horti

**Strengths**

- Highly productive and suitable for grazing, silage or hay.
- Can be grown in a short-term pasture mix.
- Stoloniferous varieties have moderate drought tolerance and can maintain populations through the production of daughter plants.
- Provides a valuable source of nitrogen for companion grasses or subsequent crops.

**Limitations**

- Susceptible to a range of fungal diseases.
• Stock infertility can occur due to oestrogenic compounds present in most cultivars.
• May cause bloat in grazing animals if dominant.
• Relatively poor winter growth.

Plant Description

Plant: a herbaceous perennial or biennial legume, 50-75 cm tall with a strong, deep, extensively branched taproot.
Stoloniferous types are more persistent and tolerant of close grazing by sheep.
Leaves: trifoliate on a slender stalk, oblong or oval shaped and hairy, with branched veins. Tetraploid types tend to have larger leaves than diploid types.
Flowerhead: large sphere-shape, many small rose-coloured flowers clustered; brown and papery after seed set. Egg-shaped pods contain one seed.
Seeds: kidney-shaped, can be yellow, brown or purple with a moderate level of hard seed present. ~600,000 seed/kg.

Pasture type and use

Red clover is a most productive, summer-active, forage legume for temperate areas. It is most nutritious for hay or silage production and well suited to cattle grazing. Associated with high levels of N fixation.

Where it grows

Rainfall: To be persistent and productive red clover requires an annual rainfall of at least 700 mm. Hardier stoloniferous varieties will persist and be productive in areas down to 600 mm annual average rainfall.
Soils: Performs best on well-drained fertile loamy soils of moderate to heavy texture. Tolerant of acid soils, however it performs best in a pH (water) range of 5.5 – 7.0. Moderate tolerance to soil aluminium. Does not thrive on poorly drained soils. Low tolerance to saline soils.
Temperature: Red clover can be found growing naturally between latitudes 30°N and 65°N. Tolerance to high or low temperatures reflects origin of parental material. Optimum growth occurs in the range 20-25°C.

Establishment

Companion species: Compatible with other temperate species, especially short and long rotation ryegrass, chicory. Potential to increase feed quality when sown with summer crops (e.g. maize).
Sowing/planting rates as single species: 3 - 8 kg/ha.
Sowing/planting rates in mixtures: 2 - 5 kg/ha.

Sowing time: Can be sown in autumn (early) or spring. There is a risk of frost damage to young plants if sown in autumn.

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

Fertiliser: Requires high levels of fertility for best performance. Major nutrient requirements are phosphorous, potassium, sulphur and molybdenum. Soil test results and local knowledge of soil type and fertiliser history should determine rates to be applied at sowing.

Management

Maintenance fertiliser: Adequate levels of phosphorous, potassium, sulphur and molybdenum should be maintained for optimum growth.

Grazing/cutting: When grown for hay, cutting red clover at the early flowering stage (_ to _ in bloom) maximises the yield and feed value. Generally three cuts (subsequent cuts at _ bloom) of hay can be expected per year, provided there is adequate fertility and lenient grazing in the first year will enhance production and persistence (leave at least 5 cm of growth). Rotational grazing will improve persistence. Red clover is sensitive to set stocking for long periods. Avoid overgrazing in winter, as this will hasten the thinning of stands.

Ability to spread: Red clover can spread through the actions of stock passing the hard seed.

Weed potential: Low. Some potential to invade disturbed native vegetation.

Major pests: Red legged earth mite, Pea aphid, blue oat mite and cut worms. Native bud worms (Heliothis), mirids and thrips can damage seed crops.

Major diseases: Red clover can be susceptible to a number of fungal diseases including root rot (Phytophtora ssp.), clover rot (Sclerotinia ssp.) and crown rot.(Fusarium spp.)

Rust: Powdery mildew may be a problem in areas with high humidity and rainfall.

Herbicide susceptibility: Red clover is sensitive to commonly used hormone type herbicides such as MCPA and 2,4-D. Herbicides containing 2,4-DB can be used.

Animal production

Feeding value: High. Intake can still be quite high when digestibility is relatively low at advanced stage of growth. Tetraploids generally have higher digestibility and protein levels than diploids.

High nutritive value: Silage has a high crude protein content of 16-20% and a ME content of 10-12 MJ/kg DM, depending on the growth stage at harvest.

Palatability: Highly acceptable forage to livestock either as hay, silage or grazed at a young
leafy growth stage. Red clover silage has a higher level of palatability compared to grass silage, allowing for greater animal intake and animal production.

**Production potential:** Under optimum growing conditions red clover peaks at 70-90 kg dry matter/ha/day in spring and summer, dropping to 5-10 kg dry matter/ha/day in winter.

**Livestock disorders/toxicity:** High oestrogen levels in some varieties can lead to a reduction in the fertility of stock grazing red clover at mating time. Bloat can be a risk particularly in cattle if grazing pure stands and may cause an increase in urinary calculi (clover stones) in sheep. Occasionally causes problems with red gut in sheep.