

## White clover

### Scientific name(s)

*Trifolium repens*

### Strengths

- High nutritive value and year round growth.
- Well adapted to grazing.
- Some Australian cultivars have relatively high heat tolerance.

### Limitations

- Vigour limited by viral diseases.
- Low tolerance to summer moisture stress.

### Plant description

**Plant:** rhizomatous, prostrate perennial with stolons from crown rooting at nodes. Some stolons may be buried.

**Stems:** smooth, hairless. Stipules short, needle-point on bluntish end. Spherical seedhead

**Leaves:** trifoliate, leaflets oval or heart shape may have light crescent mark on upper side. Smooth, hairless

**Flowers:** 30-40 white/seedhead; dense clusters on long stalk; globe shaped to 2.5 cm diameter; pale pink/white, fade to brown

**Pods:** small, oblong pods containing 3-4 seeds

**Seeds:** brown/yellow; egg/heart-shape; ~1.6 million/kg

### Pasture type and use

Most productive perennial for high rainfall/irrigated pasture; can maintain presence through ability to recruit seedlings. Vigorous growth in spring/summer can facilitate considerable nitrogen fixation by dominant stands

### Where it grows

#### Rainfall

> 700 mm

#### Soils

Suited to a wide range of soil pH > 4.5; optimum 5.3. Tolerates low exchangeable aluminium and poorly drained soils. Well suited to peaty soil.

#### Temperature

Cold and frost tolerant. Optimum range, 18-30°C

### Establishment

#### Companion species

**Grasses:** most temperate and subtropical spp. including perennial ryegrass, phalaris, tall fescue, kikuyu, paspalum, Rhodes grass and Setaria

**Legumes:** strawberry clover, red clover and sub. clovers

**Herbs:** plantain, chicory

### **Sowing/planting rates as single species**

2-4 kg/ha; sow at 5-15 mm into a clean, finely worked seed bed and roll

### **Sowing/planting rates in mixtures**

0.5-2 kg/ha

### **Sowing time**

Autumn or spring

### **Inoculation**

Group B

### **Fertiliser**

Correct any nutrient deficiencies, especially K, P, Mo, S, Cu, B

## **Management**

### **Maintenance fertiliser**

For optimum growth Olsen soil P > 15

### **Grazing/cutting**

Very suitable for silage/hay. Excellent cattle pasture. Can be grazed hard but is susceptible to sustained heavy grazing by sheep in dry conditions; densely stoloniferous but varies with cultivars, small leaved cultivars are less susceptible.

### **Seed production**

Prolific seeder. Yields >1 t/ha but varies with cultivar.

### **Ability to spread**

Recruits seedlings well; cattle effectively spread seed via dung

### **Weed potential**

Moderate on disturbed land free of competitive species only. Prolific seed set and some hard seed dispersed by livestock

### **Major pests**

Red legged earthmite, lucerne flea, corbies, cockchafers, webworm, nematodes, cutworms, budworms, reticulated slug

### **Major diseases**

**Fungal:** Clover rot (*Sclerotinia trifoliorum*)

Wart disease (*Physoderma trifolii*)

**Viral:** Alfalfa Mosaic Virus, White Clover Mosaic Virus,  
Clover Yellow Vein Virus

**Mycoplasma:** Phyllody

### **Herbicide susceptibility**

A wide range of weeds may be encountered. When choosing selective herbicides, consider the stage of growth of the white clover and what non-target companion species are present. For detailed information consult local weed agronomists or visit NSW DPI - Weed control in Lucerne and Pastures 2007

## **Animal production**

### Feeding value

High; nutritive value decline with maturity is considerably less than for most other species

### Palatability

Highly palatable









### Production potential

Good autumn and spring/early summer vigour; good winter-active cvv are available for districts (eg coastal) with milder winter

### Livestock disorders/toxicity

High bloat risk if dominant in spring. May contain cyanogenic glucoside compounds; the concentration is rarely sufficient to be significant

## Cultivars

Group	Cultivar	Seed source/Information	
Large leaved	Braidwood	Seed Genetics Australia	
	El Lucero	AusWest Seeds	
	Emerald	AusWest Seeds	
	Excel Ladino	Seed Genetics Australia	
	Grasslands Kopu II	Wrightson Seeds	
	Haifa	PlantTech	
	Osceola	Wrightson Seeds	
	Quest 	PlantTech Seedmark	
	RD 19 Taree Ladino	Seed Genetics Australia	
	SuperHaifa 	Seed Genetics Australia	
	SuperHaifa II	Seed Genetics Australia	
	Super Ladino 	Seed Genetics Australia	
	Tamar	AusWest Seeds	
	Tamarmax	Seed Distributors	
	Tillman II		
Large-Medium	Waverly 	PlantTech Seedmark	
	Will Ladino	PGG Seeds	
	Grasslands Bounty 	Wrightson Seeds	
	Grasslands NuSiral 	AusWest Seeds	
	Grasslands Pitau	AusWest Seeds	
	Grasslands Sustain 	Heritage Seeds	
	Grasslands Trophy	PGG Seeds	
	Tribute 	PGG Seeds	
	Medium	Canterbury	Seed Genetics Australia
		Grasslands Challenge	AusWest Seeds

	Grasslands Huia	AusWest Seeds
	Grasslands Nomad	AusWest Seeds
	Irrigation	AusWest Seeds
	Mink <sup>®</sup>	Heritage Seeds
	Storm <sup>®</sup>	Heritage Seeds
	Trifol sweet <sup>®</sup>	AusWest Seeds Blair Technology Pty Ltd
Medium-Small	Grasslands Demand <sup>®</sup>	CropMark Seeds
	Grasslands Prestige <sup>®</sup>	PGG Seeds
	Star	Seed Distributors
	SuperHuia <sup>®</sup>	Seed Genetics Australia
Small	Grasslands Tahora <sup>®</sup>	Wrightson Seeds
	Prop	AusWest Seeds

<sup>®</sup> Denotes that this variety is protected by Plant Breeder's Rights

### Further information

### Acknowledgements

CSIRO, Departments of Primary Industry

### Author and date

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