



Background

Red clover has proven to be an important forage legume, particularly in the late summer and autumn, when soil moisture levels, temperature and pests can limit traditional ryegrass/white clover pasture growth. Red clover provides significantly higher legume production levels over the summer months compared to white clover, (two to three times) due to its ability to grow under drier soil conditions. Red clovers therefore provide a very effective pasture component for finishing stock over summer. One of the major break throughs in breeding red clover is a reduction in formononetin levels (an oestrogen compound), which can reduce reproductive performance in sheep. Grasslands **Sensation** formononetin levels are around 60% of Pawera. Red clover has significantly better tolerance to clover root weevil (CRW) than white clover.

Sensation red clover was selected as a productive, upright growing cultivar, which gave improved tolerance to close grazing. Some Swiss material was included in the breeding to give better cold tolerance to winter chilling and to improve the productivity of **Sensation** in the spring.

Key Features

- ✓ A diploid early flowering red clover
- ✓ Bred for persistence under close grazing
- ✓ High yielding cultivar with excellent spring production
- ✓ High levels of natural reseeding
- ✓ Reduced levels of formononetin (oestrogen)

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Characteristics

Perenniality	Leaf Size	Oestrogen	Chromosome No.	Suggested Sowing Rate (kg/ha)	1000 Seed Weight
Perennial	Medium	Medium	Diploid	Mixed sward 2-4	1.9 grams

Sensation is one of the earliest flowering red clover cultivars on the New Zealand market, resulting in improved late winter and spring production, without losing the summer production advantage that red clover exhibits over white clover.

Sensation's flowering date is approximately two weeks earlier than Colenso red clover and five weeks earlier than Grasslands **G27**.

Sensation has only moderate levels of formononetin allowing **Sensation** to be used in pasture mixes without any major concerns for animal reproductive effects.

Sensation can be the sole red clover used in a mix or combined with the later flowering **G27** red clover to extend the seasonal growth of red clover in the pasture.

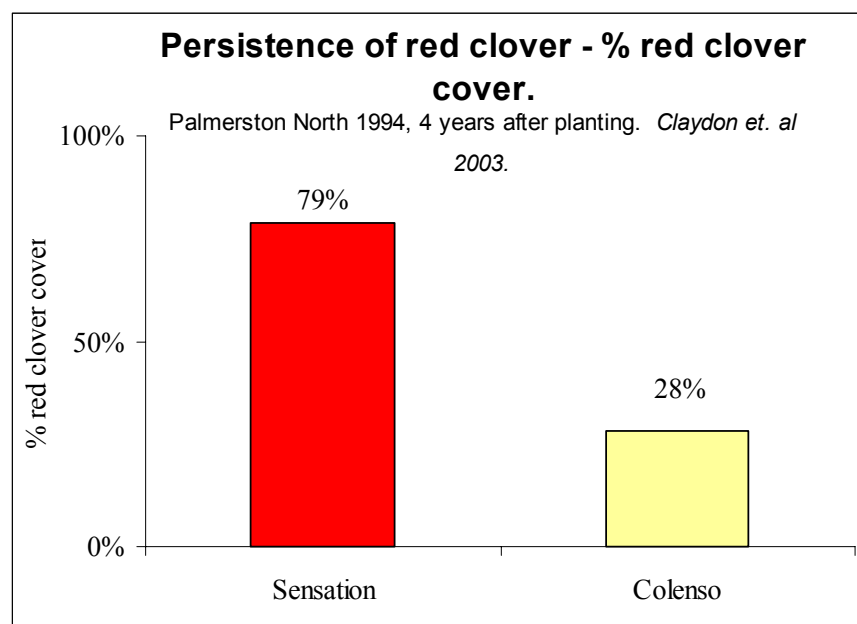
Sensation exhibits high levels of natural reseeding, so that when it is spelled within a pasture sward this allows good seed banks of **Sensation** to be built up in the soil.

Production

**AgResearch red clover herbage production trial (kg/ha DM).
Palmerston North site 1990-1994**

Cultivar	1 st spring & early summer	Late summer/ early autumn	2 nd spring	2 nd summer	3 rd spring
Colenso red clover	2528	2741	3190	3461	1988
Pawera red clover	2218	2559	1198	3579	1117
G27 red clover	2489	2749	2317	3874	2672
Sensation	3273	3126	3096	5246	2839
LSD 5%	995	315	566	374	987

Note the persistence of **Sensation** as indicated by the yields in the second summer and third spring.



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Suggested Pasture Mixes

1. Sheep – Beef Mix

Grasslands Supreme^{PLUS} hybrid ryegrass	8 kg/ha
Grasslands Samson perennial ryegrass	8 kg/ha
Grasslands Sensation red clover	6* kg/ha
Grasslands Tribute white clover	2 kg/ha

2. Dairy Mix:

Grasslands Supreme^{PLUS} hybrid ryegrass	10 kg/ha
Grasslands Samson perennial ryegrass	8 kg/ha
Grasslands Sensation red clover	5 kg/ha
Grasslands Tribute white clover	2 kg/ha

Remember that red clover seed is three times larger than white clover; therefore sowing rates must be higher.