



Background

Grasslands *Choice* was bred in New Zealand by AgResearch Grasslands, the breeders of the original forage chicory, Grasslands Puna. *Choice* was bred from true perennial chicory parents under grazing evaluations, and selected for high dry matter production, improved cool season growth, reduced lactucin levels, and improved persistence. It has performed very well in trials, exhibiting good growth and persistence compared with other cultivars.

Characteristics

Perenniality	Cool Season Growth	Growth Habit	1000 Seed Weight	Suggested Sowing Rate (kg/ha)
Perennial	High	Erect	1.2 grams	Pure sward 4-6kg/ha Mixed sward 1-2kg/ha

Key Features

- ✓ Improved dry matter production
- ✓ A true perennial with good persistence
- ✓ Increased cool season growth
- ✓ High summer quality

Production data

The growth and persistence of chicory cultivars was studied at the Kimihia Research Centre in Canterbury. The trials showed that *Choice* is the preferred cultivar for both production (Tables 1 & 2) and persistence (Figure 1).



Table 1. Pure Chicory Swards Cut and Total Yield, Canterbury.
(relative to trial mean=100)

Cultivar	Autumn**	Winter* ¹	Spring* ²	Summer**	Total**
<i>Choice</i>	101	126	104	101	105a
Chico	97	84	100	100	98b
Grouse	102	89	95	99	97b
Trial means (kg DM/ha)	1640	1206	4288	3746	27147

*¹ Average of years 2 & 3, year 1 excluded due to rabbit grazing.

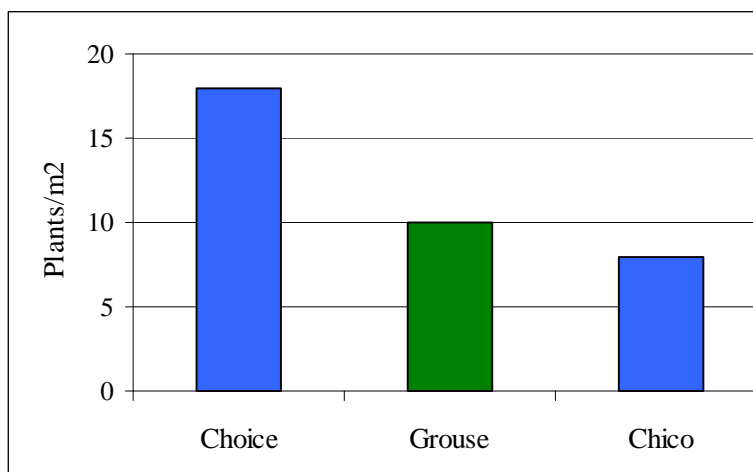
*² Average of years 1 & 2, year 3 excluded due to trial termination, **Average of three years. ***Total production for 30 months

Table 2. Chicory component (kg DM/ha) of a fescue pasture mixture, Canterbury

Entry	Total over 30 months
<i>Choice</i>	30262 a
Grouse	26741 b
Chico	26174 b
Significance	*
LSD (5%)	2652
CV%	6.2
Trial mean (kg DM/ha)	27941



Figure 1. Persistence of chicory cultivars - Plants/m² three years after planting, Kimihia Research Centre, Canterbury.



Uses

Choice is recommended for all situations where chicory is used. Chicory has proven to be an exceptional pasture plant for animal performance and feed quality. Growth of sheep, deer and cattle is close to the maximum possible on grazed pastures. Grazing chicory also boosts milk production in dairy cows, and *Choice* is particularly suited as it has lower lactucin levels than other cultivars.

It has positive benefits to animal health, especially regarding lungworm in deer, and lamb growth in worm-infected lambs. It is high in minerals essential for animal growth, and its deep roots extract nutrients from sub soil that other pastures cannot.

Chicory is very productive over spring, summer and autumn, and dormant or semi-dormant in mid-winter depending on the region it is in when it is being grown. It is also one of the most drought tolerant plants available.



A. Special purpose chicory pasture.

Chicory can be used in a mix with white and red clover as a high performance finishing pasture for lamb, weaner deer, and beef cattle. This pasture can also be used on dairy farms by break feeding in summer to boost cow nutrition. Chicory can also be added to grass pasture mixes, with high quality ryegrasses or tall fescue being the best companions.

This is the preferred way to use chicory as it maximises its benefits because management that suits chicory can be applied. This pasture is best sown in spring (soil temperatures 12°C+) after full cultivation. Seed must be sown at a shallow depth, and pre-emergence herbicides are commonly used to reduce weed establishment.

<i>Choice</i> chicory (bare seed)	6 kg/ha
<i>Sensation</i> red clover (bare seed)	4 kg/ha
<i>Tribute</i> white clover (bare seed)	3 kg/ha
Total	13 kg/ha

B. Chicory/grass mixed pasture.

A chicory/grass mixed pasture is common where farmers require year-round pasture production, but want a boost in summer production and quality. Tall fescue has proved to be the best companion grass, but high quality ryegrasses (e.g. *Sterling*) can also be used.

<i>Advance</i> tall fescue	18 kg/ha
<i>Choice</i> chicory (bare seed)	1.5 kg/ha
<i>Sensation</i> red clover (bare seed)	4 kg/ha
<i>Tribute</i> white clover (bare seed)	3 kg/ha
Total	26.5 kg/ha