

## “NZ Bred Certified Chicory”

- A true perennial chicory with good persistence
- Improved drymatter production
- High summer quality
- Ideal for short term “finishing” or milking pastures
- Choice is a certified chicory variety

PERENNIALITY	COOL SEASON GROWTH	GROWTH HABIT	1000 SEED WEIGHT (grams)	SUGGESTED SOWING RATE (kg/ha)
Perennial	High (for chicory)	Erect	1.2	1-3 mixed sward 6-8 pure stand

### Background

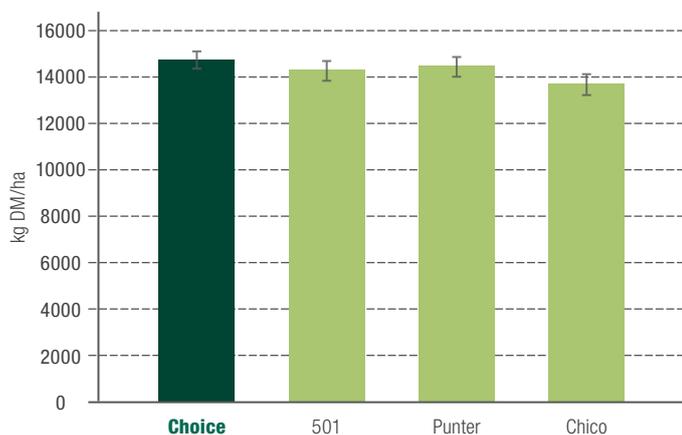
**Choice** was bred in New Zealand by AgResearch Grasslands, the breeders of the original forage chicory, Puna. Compared to the original Puna, **Choice** has a uniform full strap leaf and is fully green in colour. **Choice** was bred from true perennial chicory parents under grazing evaluation and selected for high drymatter production, improved cool season growth and recovery from grazing. **Choice** has been bred with very good leaf disease tolerance.

**Choice** gives high volumes of good quality summer feed for increased animal production. It is commonly used as a pure stand summer crop for milk production and finishing systems. **Choice** is a good source of minerals (particularly Zn, Cu, Mg, P, Ca, K).

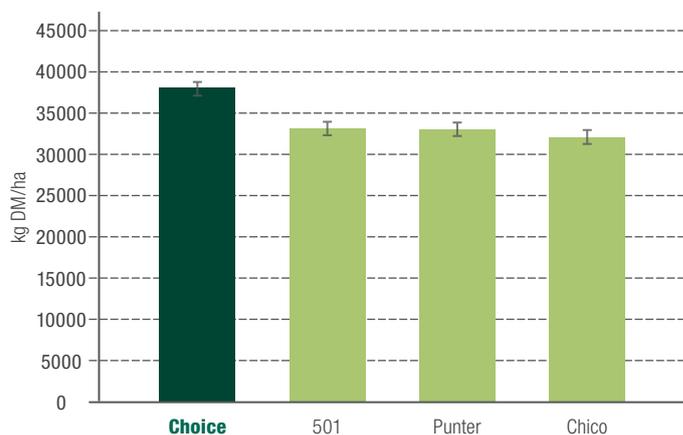
**Choice** is very productive over spring, summer and autumn, and is moderately active in mid-winter depending on the region of use. It is also one of the most drought tolerant plants available which is most expressed in fertile free draining soil.

### Production Data

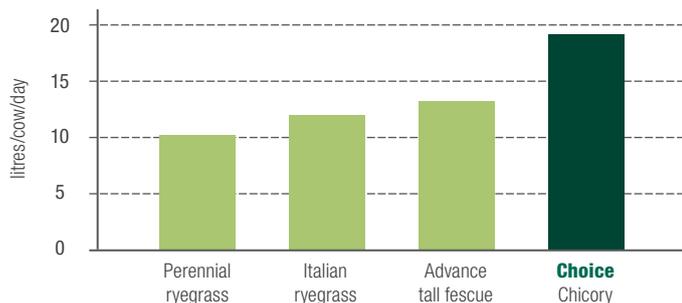
**Figure 1. Chicory production over 6 months in the Waikato (kg DM/ha). 1 trial, sown in spring 2013.**



**Figure 2. Chicory production over 16 months in the Waikato (kg DM/ha) 1 trial, sown in spring 2013.**



**Figure 3. Summer milk production from cows grazing four pasture types (Tharamaj *et al.*, 2005).**



**Statistical Significance:** Those cultivars whose error bars do not overlap are significantly different from each other at the 95% confidence level. Those cultivars whose error bars do overlap are not significantly different from each other.

## Additional Data

The Australian paper "Evaluation of chicory cultivars and accessions for forage in south-eastern Australia by Guangdi *et al.*, (2010) shows that **Choice** is one of the most productive and persistent types of chicory available and supports our knowledge of the cultivars breeding and usage in New Zealand.

**Table 1: Predicted herbage yield (t DM/ha, back transformed) & predicted plant frequency (% , back transformed) from five sites in New South Wales, Victoria & South Australia**

CULTIVAR	HERBAGE YIELD			PLANT FREQUENCY		
	PREDICTED OVERALL MEAN (TRANSFORMED)	RANK	CONFIDENCE LEVEL	COMBINED PREDICTED MEANS (TRANSFORMED)	RANK	CONFIDENCE LEVEL
Chico	61.08	5	0.989	3.42	17	<0.001
<b>Choice</b>	<b>66.22</b>	<b>1</b>	<b>0.999</b>	<b>4.64</b>	<b>3</b>	<b>0.046</b>
Commander (501)	62.36	4	0.999	3.87	12	<0.001
Grasslands Puna	58.82	7	NA <sup>b</sup>	4.94	2	NA <sup>b</sup>
Grouse	64.51	3	0.999	3.91	8	<0.001
Lacerta	64.67	2	0.999	3.77	13	<0.001
Puna II	59.55	6	0.768	5.12	1	0.848
SA38488	37.14	15	<0.001	3.90	10	<0.001
SA38500	33.03	18	<0.001	3.45	15	<0.001
SA38589	33.67	17	<0.001	3.61	14	<0.001
SA38627	30.83	20	<0.001	2.73	21	<0.001
SA38955	31.41	19	<0.001	3.42	16	<0.001
SA38972	28.14	21	<0.001	2.84	20	<0.001
SA39000	36.65	16	<0.001	3.87	11	<0.001
SA39435	50.60	8	0.008	3.31	19	<0.001
SA39441	43.22	12	<0.001	4.25	7	<0.001
SA39442	42.85	13	<0.001	4.52	5	0.009
SA39444	37.24	14	<0.001	4.30	6	<0.001
SA39449	48.33	9	<0.001	3.91	9	<0.001
SA39452	47.26	10	<0.001	3.40	18	<0.001
SA42961	44.50	11	<0.001	4.55	4	0.014

Adapted from Guangdi *et al.*, (2010). Evaluation of chicory cultivars and accessions for forage in south-eastern Australia. *Crop and Pasture Science*, 61(7), 554-565.

## Key Tips

- Establish on a static or rising 12°C soil temperature
- Use nitrogen at sowing and then again after first grazing regardless of the inclusion of clover
- First graze should be at 7 true leaves which will be close 2,200 kg DM/ha
- Following first grazing, graze when 20 – 25 cm high and down to a post grazing residual of 4 cm
- For crops carried on for a second year, focus on late September and October grazing to attempt to prevent reproductive growth which will limit production and often persistence
- For six month cropping use full rates of chemical to check or kill chicory prior to perennial grass sowing in mid autumn. Failure to do this puts perennial pastures at risk of excessive chicory competition

For more information on **Choice** chicory check out the **Choice Guide for Dairy Farms** and the **Choice Guide for Lamb Finishing** at [agricom.co.nz/guides](http://agricom.co.nz/guides).

## Suggested Mixes

### DAIRY PASTURE EXAMPLE MIX

	RATE (kg/ha)
<b>Choice</b> chicory	4
Asset Italian ryegrass (LE or AR37)	12
Tribute white clover	4
Relish red clover	5
<b>TOTAL</b>	<b>25</b>

### SPECIAL PURPOSE CROP EXAMPLE MIX

	RATE (kg/ha)
<b>Choice</b> chicory	6
Tribute white clover	2
Relish red clover	4
<b>TOTAL</b>	<b>12</b>