

## Choose Chicory

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*I must say one thing about southern down-home brewed coffee with chicory. If you have worms you'll never have them again. (Clive Cussler, American thriller writer)*

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A worm whacker and a weight stacker, common chicory (*Cichorium intybus*) has multiple benefits for cattle, for the soil and for us.

Our Resilient Farms Agronomist, Jade Killoran, says:

“Chicory is a deep tap rooted herb with anthelmintic properties, suited to areas which receive 550mm + rainfall.

Chicory is highly palatable to livestock, is summer active and improves production and quality of summer fodders, leading to improved milk production and weight gain in drier months when winter active pastures die off.

Perennial chicory establishes quite readily in a multispecies mix or when sown with annual or perennial ryegrass.

Chicory is costly per kg, but sowing rates can be .25 to 1 kg/ha in a mix, thus reducing cost/ha.

Chicory is persistent under rotational grazing once established and will set seed readily if allowed to enter reproductive stages in summer.

Chicory brings minerals and nutrients up from the subsoil and also hosts beneficial pollinators who are attracted to its blue flowers.”



## New Zealand Changes Chicory

Common chicory is a slightly woody, perennial herbaceous plant of the daisy family Asteraceae, usually with bright blue flowers, very occasionally white or pink.



It is native to western Asia, North Africa, and Europe, but it grows all over the world, including Australia, as a weed and since the 1990s for fodder.

Chicory was re-assessed as a potential forage crop in the mid-1970s in New Zealand. After ten years of breeding the world's first forage variety of chicory, Grasslands Puna, became commercially available in 1985. It was bred in New Zealand specifically as a forage crop for sheep and beef systems, selected for its tolerance to Sclerotinia fungus, long growing period and uniformity.

A range of different cultivars is now used worldwide, but most of the research on herbage production and animal performance to date has been on the Puna varieties.

### Chicory – Vital Statistics

New Zealand Dairy lists these statistics for **chicory's nutritional values:**

- Dry Matter (DM): 8-19%
- Metabolic energy: 11.5 -13MJ/kg DM
- Crude protein: 20-26% DM
- Fibre: 20-30% of DM
- Soluble sugar and starch: 10-22% DM

According to [beefandlamb.ahdb.org.uk](http://beefandlamb.ahdb.org.uk) (full article [here](#)):

- Chicory can yield 6-9 tonnes dry matter (DM) per hectare.
- Chicory is best suited to light soils and areas where its drought tolerant attributes (deep tap root) can be exploited.
- A stand-alone crop should persist for three to five years. A reduction in plant population of approximately 30% per year can be expected.
- Due to its nutritional qualities, chicory is well suited to finishing lambs or carrying ewes and lambs during lactation.

Raw chicory leaves are 92% water, 5% carbohydrates, 2% protein, and contain negligible fat (table). In a 100 gram reference amount, raw chicory leaves provide 23 calories and significant amounts (more than 20% of the Daily Value) of vitamin K, vitamin A, vitamin C, some B vitamins, and manganese. Vitamin E and calcium are present in moderate amounts. Raw endive is 94% water and has low nutrient content.

### Natural wormer

Some tannins found in chicory reduce intestinal parasites. Studies have shown that farm animals ingesting chicory have lower worm burdens. According to the above UK website, Chicory has been proven to reduce faecal egg counts in lambs and could reduce the use of anthelmintics. According to Wikipedia, some of these tannins may increase protein utilization efficiency in ruminants.

### Fun chicory facts



**Forbs for fodder** – Chicory, like sunflowers, are forbs. A **forb** or **phorb** is a herbaceous flowering plant that is not a graminoid (grass, sedge, or rush). Interestingly the word "forb" is derived from Greek *phorbé* (φορβή), meaning "pasture" or "fodder".

**Horsing around** - Chicory roots are reported to be an excellent substitute for oats for horses due to their protein and fat content.

**Chicory Trickery** - Chicory root has been cultivated since ancient Egypt and has traditionally been used on its own in tea or in medicinal remedies to treat **jaundice, liver enlargement, gout and rheumatism**.

Around 1970, it was found that the root contains up to 20% inulin, a polysaccharide similar to starch. **Inulin** is mainly found in the plant family Asteraceae as a storage carbohydrate (for example Jerusalem artichoke, dahlia, yacon, etc.). It is used as a **sweetener** in the food industry with a sweetening power 10% that of sucrose and is sometimes added to yogurts as a **'prebiotic'**. Fresh chicory root may contain between 13 and 23% inulin, by total weight.

**Culinary Chicory** - Cultivated chicory is generally divided into three types, of which there are many varieties:

**Radicchio** usually has variegated red or red and green leaves which can be used in salads and other dishes.

**Belgian endive**, known in Dutch as *witloof* or *witlof* ("white leaf"), is allowed to sprout indoors in the absence of sunlight, which prevents the leaves from turning green and opening up. The smooth, creamy white leaves may be served stuffed, baked, boiled, cut and cooked in a milk sauce, or simply cut raw.

**Catalogna chicory** (*Cichorium intybus* var. *foliosum*), also known as *puntarelle*, includes a whole subfamily (some varieties from Belgian endive and some from radicchio) of chicory and is used throughout Italy.

Some **beer** brewers use roasted chicory to add flavour to stouts. Others have added it to strong blond Belgian-style ales, to augment the hops, making a *witlofbier*, from the Dutch name for the plant.

The roots can also be cooked like **parsnips**.

**Chic Coffee** - Coffee came to Europe in the 17<sup>th</sup> century. Mixing it with chicory is likely to have started in Holland. The roots are baked, roasted, ground, and used as an additive, especially in the Mediterranean region (where the plant is native). Chicory mix coffee really took off in France in the early 1800s where it became quite chic. In 1835, France exported 1.25 million pounds of chicory and 25 years later, that figure had ballooned to 16 million pounds. Belgium, Germany and Denmark reported similar levels of consumption.

As a coffee additive, chicory is still mixed in Indian filter coffee, and in parts of Southeast Asia, South Africa. In France a mixture of 60% chicory and 40% coffee is sold under the trade



name Ricoré. It has been more widely used during economic crises such as the Great Depression in the 1930s and during World War II in Continental Europe. Chicory, with sugar beet and rye, was used as an ingredient of the East German *Mischkaffee* (mixed coffee), introduced during the "East German coffee crisis" of 1976–79. It is also added to coffee in Spanish, Greek, Turkish, Syrian, Lebanese and Palestinian cuisines.

It is also still drunk in some New Orleans cafes. This is because naval blockades during the American Civil War cut off the Port of New Orleans so Louisianans were forced to eke out their coffee with chicory root, creating a longstanding tradition. Containing no caffeine but tasting like coffee, chicory root has long been used as a substitute for coffee in American prisons.

**Multiple Names** - Common chicory has many common names - blue daisy, blue dandelion, blue sailors, blue weed, bunk, coffeeweed, hendibeh, horseweed, ragged sailors, succory, wild bachelor's buttons, and wild endive.



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