



Feed Shortage 2018

Chicory

Summer cropping options

Chicory (*Cichorium intybus*) is a deep rooted summer-active, short-term (2–4 years) perennial herb with good nutritive characteristics. It can provide high quality summer forage for grazing on southern Australian dairy farms.

Chicory has reliable summer growth, even with low rainfall, due to its deep taproot system. It can be used as a one or two year summer crop in a pasture renovation program or as a two to four year perennial crop (or more if allowed to self-seed) that can be oversown with cereals, annual or perennial grasses.

Performance

Chicory has high nutritive characteristics when grazed. It can be up to 12 MJ ME/kg DM and 25% crude protein. It provides high energy and protein during the summer months. Chicory can be grown in dryland or on irrigation. Rotational grazing management is the preferred option and therefore chicory fits in well with pasture based feeding systems.

Agronomy

Chicory can be sown in early spring in longer growing season areas, or in autumn. It is adapted to a wide variety of climates and soil types. It will grow in summer dominant and winter dominant rainfall areas with annual rainfalls between 400mm and 800mm. Chicory can be sown on heavier soil types and will tolerate soil pH (CaCl₂) from 4.8 to 6.5.

The sowing rate of chicory is determined by its use. As a single crop, the sowing rate for chicory is could be from 4–6 kg of seed/ha. It will be lower than this when combined with other species. Check with your local agronomist for the variety and sowing rate that will best suit your situation. Chicory can be sown into a cultivated seed bed or direct drilled, but no deeper than 10mm. Soil temperature needs to be greater than 10°C for a successful establishment.

Key messages

- Reliable summer growth
- High nutritional value
- Biennial herb

Phosphorus, sulphur and nitrogen are important to optimise the growth of chicory. Chicory can also be sensitive to low boron.

Red legged earth mites, lucerne fleas and slugs can be major pests during the establishment phase of chicory, so monitor closely for these.

Grass weeds in chicory can be controlled with selective herbicides. If sowing into a prepared seedbed, the soil disturbance will allow the emergence of new weeds. In this case, broadleaf weeds should be allowed to germinate and emerge. They should be controlled before or at the same time as the chicory is sown.

Management

Grazing frequency and intensity guidelines should be strictly observed to optimise DM yield, nutritive characteristics and persistence, particularly beyond the second year. Maintaining a plant height of between 5cm and 40cm will assist persistence.

Persistence of chicory is largely dependent on survival of the original plants. However, about 30% of the original plants are expected to be lost each year. Although seed production can occur after the first year of the crop, new seedlings from natural re-seeding do not always survive grazing, probably due to trampling of the fragile seedlings.

There are no major risks to animal health from chicory at normal feeding rates of less than 50% of the diet. Greater than this, some varieties may cause milk taint.

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