

Herbs: Plantain and Chicory

Grows best:

Plantain has shallow fibrous roots that require continuous moisture for persistence so more suited to the longer growing season areas such as Gosse. Tolerant of acidic and low fertility soils.

Chicory is a summer active perennial herb that has a strong taproot that can access subsoil moisture aiding its drought tolerance. Newer varieties can tolerate winter waterlogging. Suited to areas that have deeper soils to confer drought tolerance.

Key benefits

- ✓ **High nutritional quality and palatability**, leading to excellent growth rates.
- ✓ Excellent for **finishing livestock**.
- ✓ **Good out of season summer and autumn feed production** if rainfall is adequate.
- ✓ Chicory's **strong taproot** can help penetrate mild compaction layers and extract moisture from depth.
- ✓ Being herbs both have **anthelmintic (anti-parasitic) properties** due to compounds e.g. tannins, which may help reduce internal parasite burden under certain grazing systems.
- ✓ Moderately **tolerant of a range of soil pH**, but perform best above pH_{CaCl2} >5.0.
- ✓ **No known livestock animal health issues**.
- ✓ Chicory is a good **companion plant for lucerne** by reducing animal health issues.

Critical factors for persistence & productivity

- **Grazing management:** the longer the rest period between grazing, the longer the potential persistence.
- **Don't overgraze in winter** as this increases the likelihood of charcoal rot in the taproot.
- Chicory – **allow plants to set seed every 3-5 years** as it regenerates extremely well from seed.
- There are **short term** forage chicory varieties designed for only 1-2 year pastures. If you want a 4-5 year pasture ensure you specify a **long term** chicory.
- Plantain – **red legged earth mite control** is important.
- Both require **additional nitrogen** for maximum performance, but a **mixture with clover is beneficial** as the clover can supply nitrogen. Ensure adequate Colwell P for the clover.

Below: Chicory.



Grazing management

- Rotational grazing is strongly recommended to avoid plant loss.
- Allow plants to establish well before heavy grazing.
- Being extremely palatable, stock will preferentially graze the herbs before the other species in the pasture mix, which can lead to a decline in persistence if the percentage composition of the herbs is not high enough.

Establishment tips

- Clean, weed-free seedbed essential as there are no post-emergent broadleaf weed control options.
- Generally, sow with a companion species e.g. legumes and grasses to enhance pasture resilience.
- Sow chicory at 2-4kg/ha to maximise its persistence.
- Sow plantain at 1kg/ha.
- Shallow sowing with good seed-to-soil contact.

PO Box 794, Kingscote, SA, 5223
admin@agki.com.au
www.agki.com.au

Challenges

- Limited broadleaf weed control options. Thistrol Gold is registered for broadleaf weed control in chicory.
- Chicory: little winter growth. Expect 3-5 years under good management. Persistence declines generally due to crown damage
- Plantain: Costly per kilogram of seed and short-lived, typically surviving 2-4 years due to its fibrous root system/moisture stress and vulnerability to red-legged earth mite (RLEM).

Farmer insights:

‘Chicory and plantain give excellent feed quality but don't last beyond a few years.’

— Angus Pledge, Newland

Would they plant it again?

✓ **Yes, on free draining, deep soils**

✗ **No, shallow, gravelly soils**

Photo: barenbrig.com.au

Below: Plantain.



Photo: wescoseeds.co.nz



Above: Chicory thriving in companion with clover.



Above: Plantain suffering from red legged earth mite attack.

Contact

**This fact sheet was prepared by
Jenny Stanton and Lyn Dohle,
March 2026.**

*For further information on perennial
pastures, please contact*

Jenny Stanton 0484 602 946
jennybehenna@hotmail.com

or

Lyn Dohle 0419 846 204
lyn.dohle@sa.gov.au

Acknowledgements

*This project is funded by the Kangaroo
Island Landscape Board.*

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