

These cards are a guide to grassland ley species, and complement the Multi-species Sward App.

Please note that the 'thumb symbols' only compare species of the same group (legumes/herbs/grasses).

The cards are coloured as follows:

- Legumes
- Herbs
- Grasses

The cards and app are part of the Toolbox of Multi-species Swards project (www.multispeciessward.co.uk) funded by the Agri-tech Cornwall and the Isles of Scilly project, led by Duchy College Rural Business School and Rothamsted Research North Wyke. Email multispeciessward@cornwall.ac.uk for more information. We gratefully acknowledge the contributions of farmers, collaborating business partners and experts.



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The cards and app were designed and made in Cornwall by FoAM Kernow. All photos taken by Bethan Stagg except where stated otherwise. Version 1.1.



Plant: Upright and no stolons (rooting stems).



Leaves: 3 leaflets, hairless, no crescent.
Flowers: Pale pink or white, spherical head.



Seedling: First true leaves visible at 2 weeks.

- Protein —————> 👍
- Minerals —————> ?
- Digestibility —————> 👍
- Persistence (grazed) —————> ?
- Relative yield (cut) —————> 👎
- Relative yield (grazed) —————> ?
- Intensive cut/graze tolerance —————> ?
- Anthelmintic properties —————> ?
- Waterlogging tolerance —————> ?
- Marginal soils tolerance —————> 👍
- Drought tolerance —————> 👎
- Frost tolerance —————> 👍
- Bloat safe —————> 👎

ALSIKE CLOVER
Trifolium hybridum



Plant: Upright and sprawling habit.



Leaves: 5 leaflets (3 clover-shaped, 2 clasping stem).
Flowers: Yellow.



Seedling: First true leaf has 5 leaflets (3 weeks).

- Protein —————> 👍
- Minerals —————> 👍
- Digestibility —————> 👍
- Persistence (grazed) —————> 👍
- Relative yield (cut) —————> 👎
- Relative yield (grazed) —————> 👎
- Intensive cut/graze tolerance —————> 👎
- Anthelmintic properties —————> 👍
- Waterlogging tolerance —————> 👍
- Marginal soils tolerance —————> 👍
- Drought tolerance —————> 👍
- Frost tolerance —————> ?
- Bloat safe —————> 👍

BIRD'S-FOOT-TREFOIL
Lotus corniculatus



Plant: Upright and bushy.



Leaves: 3 leaflets, joined with short stalk.
Flowers: White, purple, or yellow clusters.



Seedling: First true leaf is heart or kidney-shaped (2 weeks).

Protein	→	👍
Minerals	→	?
Digestibility	→	👍
Persistence (grazed)	→	👍
Relative yield (cut)	→	👍
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👎
Marginal soils tolerance	→	👎
Drought tolerance	→	👍
Frost tolerance	→	👎
Bloat safe	→	👎

LUCERNE
Medicago sativa



Plant: Upright or sprawling habit.



Leaves: 3 leaflets, hairy, often crescent marks.
Flowers: Reddish-pink.



Seedling: Hairs on leaf already visible (2 weeks).

Protein	→	👍
Minerals	→	👍
Digestibility	→	👍
Persistence (grazed)	→	👎
Relative yield (cut)	→	👍
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	?
Waterlogging tolerance	→	👎
Marginal soils tolerance	→	👎
Drought tolerance	→	👎
Frost tolerance	→	?
Bloat safe	→	👎

RED CLOVER
Trifolium pratense



Plant: Upright and bushy.



Leaves: Rows of oval leaflets up the stem.
Flowers: Pink, purple veins, cone shaped.



Seedling: First true leaf at 2 weeks has 1-3 long, oval leaflets.

Protein	→	👎
Minerals	→	?
Digestibility	→	👍
Persistence (grazed)	→	👎
Relative yield (cut)	→	👎
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👍
Waterlogging tolerance	→	👎
Marginal soils tolerance	→	👎
Drought tolerance	→	👍
Frost tolerance	→	👍
Bloat safe	→	👍

SAINFOIN
Onobrychis viciifolia



Plant: Creeping, with stolons (rooting stems).



Leaves: 3 leaflets, hairless, crescents.
Flowers: Cream or pinkish white.



Seedling: White crescents visible at 2 weeks.

Protein	→	👍
Minerals	→	👍
Digestibility	→	👍
Persistence (grazed)	→	👍
Relative yield (cut)	→	👎
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👍
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	👍
Drought tolerance	→	👎
Frost tolerance	→	?
Bloat safe	→	👎

WHITE CLOVER
Trifolium repens



Plant: Rosette form, with leaves sprouting from the base.



Leaves: Narrow oval, often hairy, toothed, or pale green.
Flowers: Bright blue.



Seedling: Pale oval leaves (2 weeks).

Protein	→	👍
Minerals	→	👍
Digestibility	→	👍
Persistence (grazed)	→	👎
Relative yield (cut)	→	👎
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👍
Waterlogging tolerance	→	?
Marginal soils tolerance	→	?
Drought tolerance	→	👍
Frost tolerance	→	👍
Bloat safe	→	?

CHICORY
Cichorium intybus



Plant: Rosette form, with leaves sprouting from the base.



Leaves: Narrow, ribbed, oval.
Flowers: Brown, cylindrical shape.



Seedling: Grass-like leaves (2 weeks).

Protein	→	👍
Minerals	→	👍
Digestibility	→	👎
Persistence (grazed)	→	👎
Relative yield (cut)	→	👍
Relative yield (grazed)	→	👎
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👍
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	👍
Drought tolerance	→	👍
Frost tolerance	→	?
Bloat safe	→	?

RIBWORT PLANTAIN
Plantago lanceolata



Plant: Rosette form, with leaves sprouting from the base.



Leaves: Toothed, in pairs up the stem.
Flowers: Knobbly green-red clusters.



Seedling: First true leaves are pale and toothed (2 weeks).

Protein	→	👎
Minerals	→	?
Digestibility	→	?
Persistence (grazed)	→	👎
Relative yield (cut)	→	👎
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	?
Waterlogging tolerance	→	?
Marginal soils tolerance	→	?
Drought tolerance	→	👍
Frost tolerance	→	?
Bloat safe	→	?

SHEEP'S BURNET
Sanguisorba minor



Plant: Rosette form, with leaves sprouting from the base.



Leaves: Feathery, garden parsley-like.
Flowers: Rare; tiny yellow clusters.



Seedling: Closely resembles the mature plant.

Protein	→	?
Minerals	→	?
Digestibility	→	?
Persistence (grazed)	→	?
Relative yield (cut)	→	?
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	?
Waterlogging tolerance	→	?
Marginal soils tolerance	→	?
Drought tolerance	→	?
Frost tolerance	→	?
Bloat safe	→	?

SHEEP'S PARSLEY
Petroselinum crispum



Plant: Rosette form, with leaves sprouting from the base.



Leaves: Feathery, dark green.
Flowers: Flat-topped, cream-white clusters.



Seedling: First true leaves are feathery (3 weeks).

Protein	→	?
Minerals	→	👍
Digestibility	→	?
Persistence (grazed)	→	?
Relative yield (cut)	→	?
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👍
Waterlogging tolerance	→	👎
Marginal soils tolerance	→	?
Drought tolerance	→	?
Frost tolerance	→	?
Bloat safe	→	?

YARROW
Achillea millefolium



Plant: Up to 150cm, dark bluish-green, dense tufts.



Flower: One-sided, clumped flower head.



Stem sheath: No auricles, ligule often long (2-12mm), ligule has jagged edges.

Protein	→	👍
Minerals	→	👍
Digestibility	→	👍
Persistence (grazed)	→	👍
Relative yield (cut)	→	👎
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👎
Marginal soils tolerance	→	👎
Drought tolerance	→	👍
Frost tolerance	→	?
Bloat safe	→	?

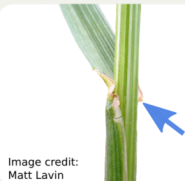
COCK'S-FOOT
Dactylis glomerata



Plant: Up to 80cm, loose tufts, sometimes forms clumps, variable green colour.



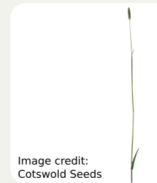
Flower: Tinged reddish/brown.



Stem sheath: Short, stubby ligule – barely visible (1mm). Small auricles with no hairs.

Protein	→	👎
Minerals	→	?
Digestibility	→	👎
Persistence (grazed)	→	👎
Relative yield (cut)	→	👎
Relative yield (grazed)	→	👎
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	?
Marginal soils tolerance	→	?
Drought tolerance	→	👎
Frost tolerance	→	👍
Bloat safe	→	?

MEADOW FESCUE
Schedonorus pratensis



Plant: Up to 120cm, whitish-green, erect tufts.



Flower: Tassel-like, cylindrical, up to 13cm long, yellow-green, covered in silver hairs.



Stem sheath: No auricles, ligule typically short (1-4mm) and tatty.

Protein	→	👎
Minerals	→	?
Digestibility	→	👎
Persistence (grazed)	→	?
Relative yield (cut)	→	👎
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	?
Drought tolerance	→	👎
Frost tolerance	→	?
Bloat safe	→	?

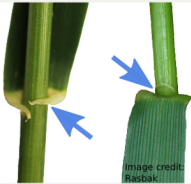
MEADOW FOXTAIL
Alopecurus pratensis



Plant: Up to 100cm, dark green and glossy, dense tufts.



Flower: Simple 'florets' in alternating pattern; no awns (bristle-like hairs).



Stem sheath: Long auricles clasp the stem. Short ligule (1-2mm, hard to see).



Image credit: Cotswold Seeds

Plant: Up to 200cm, loose tufts, dark green.



Image credit: Harry Rose

Flower: Open, multi-branched flower head. Looks more like a spike before flowering.



Image credit: Lavin

Stem sheath: Short ligule (2mm, hard to see). Narrow auricles with fine, wispy hairs.



Plant: Up to 150cm, light grey-green, upright tufts.



Flower: Tassel-like, cylindrical, up to 15cm long, green to grey-purple, no silver hairs.

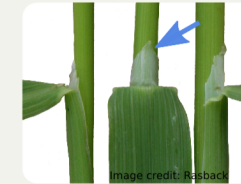


Image credit: Rabback

Stem sheath: No auricles. Ligule up to 6mm long, notched edges and pointed tip.

Protein	→	👎
Minerals	→	?
Digestibility	→	👎
Persistence (grazed)	→	?
Relative yield (cut)	→	👎
Relative yield (grazed)	→	?
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	?
Drought tolerance	→	👎
Frost tolerance	→	?
Bloat safe	→	?

PERENNIAL RYE-GRASS
Lolium perenne

Protein	→	👎
Minerals	→	?
Digestibility	→	👎
Persistence (grazed)	→	👍
Relative yield (cut)	→	👍
Relative yield (grazed)	→	👍
Intensive cut/graze tolerance	→	👍
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	?
Drought tolerance	→	👍
Frost tolerance	→	👍
Bloat safe	→	?

TALL FESCUE
Schedonorus arundinaceus

Protein	→	👎
Minerals	→	?
Digestibility	→	👎
Persistence (grazed)	→	👎
Relative yield (cut)	→	👎
Relative yield (grazed)	→	👎
Intensive cut/graze tolerance	→	👎
Anthelmintic properties	→	👎
Waterlogging tolerance	→	👍
Marginal soils tolerance	→	👍
Drought tolerance	→	👍
Frost tolerance	→	👍
Bloat safe	→	?

TIMOTHY
Phleum pratense