Clover content 10%

White clover is a versatile plant usually being grown with ryegrass for grazing and/or cutting. It is highly digestible with high crude protein levels that promote superior feed intakes and performance.

Clover content 30%

Maintaining an optimum dry matter balance of 30% white clover to 70% grass as an average across the season is the key to grass/clover sward management.

Clover content 60%

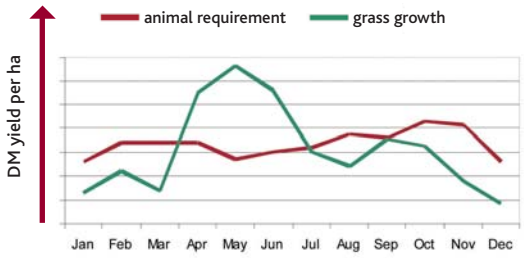
Clover has a different growth pattern to grass, with covers tending to be lower in the early spring and higher in the summer.

Maintaining sward quality

- The aim is to keep grass in a vegetative state through managing sward heights, and cheapest way to do this is to manage with grazing.
- If leaves are not harvested or grass is allowed to go to head then dead matter will build-up in the sward, and will prevent maximum growth and reduce pasture quality.
- If rotationally grazing, the sward should be grazed down to 4–5 cm before the animals are removed.
- If set stocking, the aim will be to keep the swards between 5–9 cm for beef cattle and 4–8 cm for sheep.

Annual grass growth

Grass grows at different speeds throughout the year, while animal requirements remain relatively constant.



Grazing needs to be planned to maximise production off grazed grass and conserve excess grass supplies.

Measure the farm's grass growth to use it more efficiently by planning for surpluses and deficits. Use a plate meter, sward stick or marks on your wellies.

Altering fertiliser policy, re-seeding, and growing other forage crops can alter the growth curve.

Each field on a farm will have a different growth pattern, and will depend on soil type, weather, orientation, and grazing/cutting frequency.

Better Returns Programme

EBLEX Grassland Guide

Understanding which plants make up grass swards is crucial as it determines the productivity of the pasture, its management requirements and its persistence.

Acknowledgements:
Bayer CropScience Ltd & British Seed Houses

Only well managed grass is cheap grass

- increase utilisation – manage stocking rate to avoid flowering heads and to maximise harvesting.
- decrease cost/kg LWG – manage grass well to increase productivity.
- optimise fertiliser use – newer varieties of grass respond better to fertiliser.
- ensure swards contain a high proportion of perennial ryegrass and clover.
- reseed when less than 50% of sward is perennial ryegrass.

Optimise grass growth

- Soil test regularly to ensure nutrients are managed correctly.
- Dig holes to assess soil health and compaction.
- Encourage tillering by allowing light into the bottom of the sward by good sward height management.
- Minimise grass and broad leaved weeds by good management of soil and sward and avoid poaching damage.
- Perennial ryegrass and sown species will be maintained for longer in swards with good fertility and drainage.

How does grass grow?

Most grasses have evolved to withstand grazing by livestock, by having growing points at or near ground level.

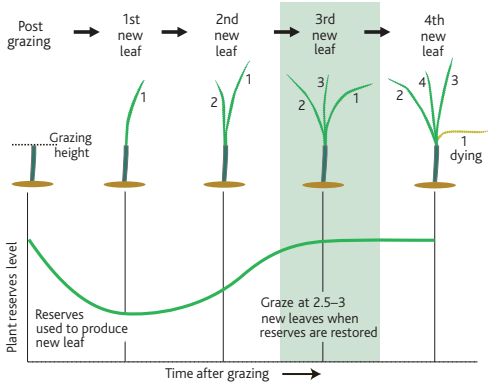
Perennial ryegrass has **3** leaves per individual grass plant or tiller.

The **1st** leaf dies when the **4th** starts to grow.

In May a new leaf is produced every **4–5** days. In January this takes **30** days.

The entire leaf canopy can be replaced within **3–4** weeks.

Ideal grazing takes place at the **3rd** leaf stage.



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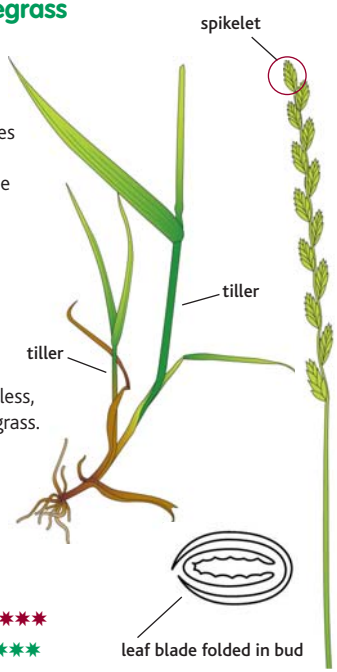
Perennial ryegrass



Large dark green, tufted plant. Hairless leaf blades folded in shoot. Shoots at the base of the plant have a red colour.

Flower head is flattened, with spikelets on opposite sides of the stem.

Spikelets are awnless, unlike Italian ryegrass.

Productivity ✶✶✶✶✶
Feed value ✶✶✶✶✶

Timothy

A light greyish-green, tuft forming plant with short rhizomes.

Leaves are rolled in the bud and have a twisted top tapering to a point.

Young leaves are soft and hairless. The bottom of the stem is generally bulbous.

The flower head looks like a cat's tail and has two needles on every spikelet.

Productivity ✶✶✶
Feed value ✶✶✶

Cocksfoot

Large densely tufted plant. Often forming large tussocks.

Coarse looking grass often bluish-green in colour, with white ligules.

Dull green or greyish green leaf blade which as rough, broad and sharply pointed.

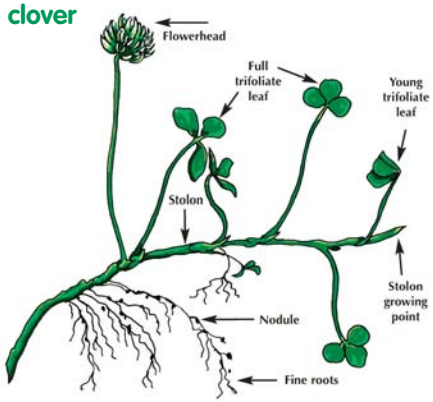
Folded-in flattened shoot. Strongly keeled.

Flower head is one-sided, usually as a triangular panicle.

Spikelets are small, flattened and condensed into oval-shaped clusters.

Productivity ✶✶✶✶
Feed value ✶✶✶

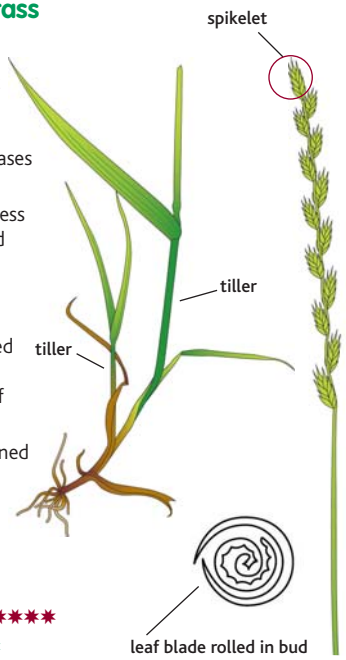
White clover



Prostate growth habit with branching network of creeping stems (stolons) that root down at the nodes. Leaves are trifoliate with a pale coloured v- or horseshoe-shaped leaf mark. Leaf size is useful guide to management requirements of plant. White or pink flowers are borne in dense round heads on a long thin stalk. Fixes nitrogen from the air but will also tolerate applications of artificial nitrogen.

Productivity ✶✶✶
Feed value ✶✶✶✶✶

Italian ryegrass



Large, stout, fast growing and densely tufted plant with red bases to the shoots.

Dark green, hairless leaf blades rolled in stem.

Flower head is flattened with spikelets arranged alternatively on opposite sides of the stem.

Spikelets are awned unlike perennial ryegrass.

Productivity ✶✶✶✶✶
Feed value ✶✶

Yorkshire fog

Tufted, very hairy plant. Pale greyish-green leaves narrowing to a fine point.

Rolled leaves in the stem, very hairy and velvety to the touch.

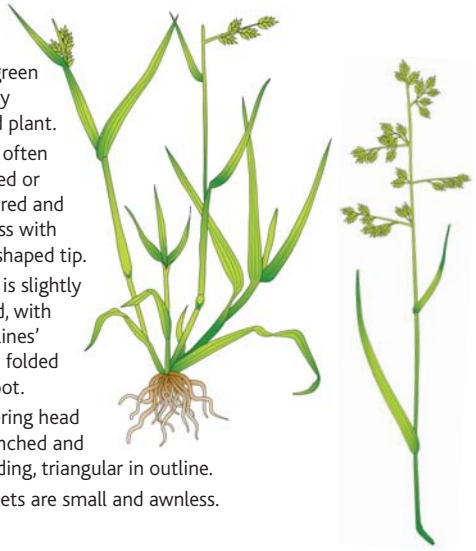
Basal leaf sheaths have pinkish-red stripes.

Flower heads are whitish, pale green, pinkish or purple.

No rhizomes.

Productivity ✶✶
Feed value ✶

Annual meadow grass



Small pale green loosely tufted plant.

Blade often crinkled or puckered and hairless with boat shaped tip.

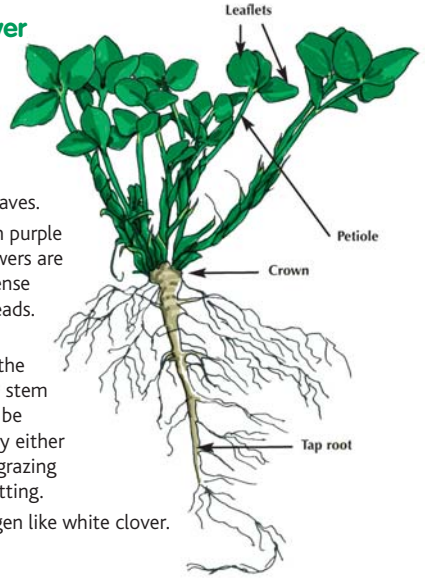
Blade is slightly keeled, with 'tramlines' and is folded in shoot.

Flowering head is branched and spreading, triangular in outline.

Spikelets are small and awnless.

Productivity ✶
Feed value ✶✶

Red clover



A tufted hairy plant with erect stems and trifoliate leaves.

The reddish purple to pink flowers are borne in dense rounded heads.

The crown located at the base of the stem should not be damaged by either very close grazing or short cutting.

Fixes nitrogen like white clover.

Productivity ✶✶✶✶✶
Feed value ✶✶✶✶✶

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