

NSA Feature: Sheep Farmers Guide to SFI and Herbal Leys/Grass Mixes/Sward Composition

Getting the most from your herbal leys, grass mixes and sward composition

Farming schemes are being rolled out across the country for sustainable food production while protecting the environment. Integration of herbal leys are one way to do this, as they provide varied root composition that improves soil structure, biology and fertility. They can be established through reseeding from scratch or overseeding into an existing pasture, and can be managed by cutting or grazing. Overseeding can be beneficial for reducing costs, rejuvenating an old herbal ley, or in situations where a total reseed may be difficult (for example, stony or sloping fields). The Sustainable



Understanding of red clover's impact on ewe fertility is improving.

This feature appeared in the April 2024 issue of the NSA's Sheep Farmer Magazine. Read the full feature below:

The Sustainable Farming Incentive (SFI) rewards farmers for sustainable food production, focusing largely on protecting the environment. The purpose of the SFI action SAM3 (herbal leys) is to provide varied root structures, which improve soil structure, biology and fertility. They can be established through reseeding from scratch or overseeding into an existing pasture, and can be managed by cutting or grazing. Overseeding can be beneficial for reducing costs, rejuvenating an old herbal ley, or in situations where a total reseed may be difficult (stoney or sloping fields). The SFI guidance recommends including five grasses, four herbs and three legumes, but it's important to build a mix that suits your soil type and management strategy.

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Grasses provide bulk, groundcover and persistence in herbal leys. Perennial ryegrass is reliable and quick to establish, but suffers in drought prone districts. Meadow fescue and Timothy are more suited to heavier clay, whilst deeper rooting, resilient grasses like Cocksfoot or Tall fescue thrives in sandy/free draining soils. Festulolium offers a combination of stress resistant fescue, with the bulkiness and palatability of ryegrass, thriving in any soil type. If overseeding an existing pasture, it's recommended to reduce the quantity of grasses in the mix to allow space for the legumes and herbs to establish.

Legumes have multiple benefits; they are high in protein, very palatable and have the ability to fix atmospheric nitrogen. They require warming soils in order to fix nitrogen, usually occurring between April and September. In a rotation, legumes also provide nitrogen for the following crop.

White clover grows on stolons which produce a low growing, creeping habit. It fixes up to 150kg N/ha in warm soils. Sheep are closer grazers, therefore choose smaller to medium leaved varieties which have a higher tolerance to heavy defoliation.

Red clover is a fast growing, fertility building legume with a high protein content (19%) and can fix up to 250kg N/ha.

Sheep breeders may worry that ewe fertility is affected by Red Clover. The plant contains two types of phyto-oestrogens;

formononetin has detrimental effects on ewe fertility, whilst biochanin A stimulates liveweight gain in lambs. Formononetin may be present in different levels in different cultivars. Past guidance has been to reduce or remove in a ley to protect their breeding ewes. We hope to see more of the recent trial work which may point to certain red clover cultivars in multispecies mixtures potentially improving lambing percentages.

Unlike white clover, red clover grows from a crown so is less persistent (avoid overgrazing). It suits wetter, heavier soils with a neutral pH; consider exchanging for Alsike clover if you have acidic soils.

Birdsfoot trefoil and Sainfoin are bioactive forages; they contain tannins which act as an anthelmintic (combating parasitic nematodes) and improves protein utilisation. This makes them a useful contribution to reducing bloat, worms and processing protein more efficiently. Similarly, Lucerne is a deep-rooting perennial legume, however is not native to the UK, therefore requires an inoculant to fix nitrogen.

Herbs such as plantain (also known as ribgrass) and chicory are deep-rooting, growing well in both dry and heavier soils where their strong taproots can access moisture whilst providing infiltration and aeration of heavier soils. They are naturally rich in minerals such as selenium, iodine, copper, cobalt and zinc which are essential for regulation of metabolism and cellular structures. Chicory is particularly beneficial to sheep where it shows anthelmintic properties; its leaves are an abundant source of phytochemicals (in particular sesquiterpene lactones, and low levels of tannins). However it can become woody and unpalatable if left to mature. If you're planning to take a cut from the herbal ley, consider removing chicory.

Well managed, grazing yields of herbal leys are comparable with perennial ryegrass swards. The transitioning of stock onto herbal leys is highly important. A warm weather spell can promote growth of the legumes and herbs which have a lower fibre content, running the risk of bloat or twisted guts. Transitioning onto a multi-species diet involves introducing stock to the ley gradually. Once transitioned, rotational grazing using electric fencing is the most efficient method of utilising the ley and to avoid preferential or overgrazing. Move sheep at a residual of around 6-8cm, and back fence into the next break to ensure enough green leaf matter for photosynthesis and a quicker recovery for the next rotation. Only move when they're full to reduce the likelihood of gorging on the next break. The recovery period before rotating back through the ley should be 28-40 days.

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