

COMMON GRASSLAND HERBS

Birdsfoot Trefoil (*Lotus corniculatus*)

A hemicryptophyte with 5-foliolate leaves (each leaf has 5 leaflets), a long tap root and yellow pea-like flowers. Like all legumes this plant has root nodules containing bacteria of the genus *Rhizobium*. Very common in unproductive, semi-natural grassland. Birdsfoot Trefoil is tolerant of grazing and palatable to stock. Absent if competition is intense. A poor competitor in tall grassland, Birdsfoot Trefoil is favoured by periodic cutting, or moderate to severe grazing. Some strains produce cyanogenic glucosides; these chemicals produce hydrogen cyanide if the leaves are damaged. This is an effective deterrent against small herbivores such as molluscs although the larva of the Burnet moth feeds on Birdsfoot Trefoil and uses the same chemical as a defence against predation.

Lesser Knapweed (*Centaurea nigra*)

A semi-rosette hemicryptophyte with hairy leaves and a thistle like flower. Associated with moderately fertile and infertile, relatively undisturbed grassland. More common in infrequently mown meadows than in pastures. Seldom found if the site is well manured or fertilised. Grass excludes Lesser Knapweed in these conditions. The leaves may be eaten by sheep and more rarely by cattle. The seeds are heavily predated by insects and small rodents.

Ox-eye Daisy (*Leucanthemum vulgare*)

A hemicryptophyte with erect shoots, variable leaves rather shallow roots and a flower that resembles a large daisy. The leaves are sparsely hairy when young. The Ox-eye Daisy is a herb of grassy open habitats where the growth of potential dominants is restricted by a degree of soil infertility and disturbance such as cutting for hay and light grazing. The plant is tolerant of grazing and trampling but is less abundant in pastures than hay meadows. This may be due to the fact that vegetative spread and seed production are less successful under grazed conditions. The Ox-eye Daisy was formerly eaten as a salad plant.

Ribwort Plantain (*Plantago lanceolata*)

A rosette hemicryptophyte with ribbed, narrow, tapering, hairy leaves and deep roots. The distinctive flower heads are brown, wind pollinated and often heavily predated by insects. The leaves are shorter, more oval and less upright in closely grazed sites. This plant is found in a wide range of habitats and has been described as one of the world's 12 most successful weeds. Very palatable to sheep which chisel out the crowns with their incisors. Cows do not readily eat Ribwort Plantain as the low growing rosettes formed in closely grazed sites are difficult for them to pull up with their tongues.

Stinging Nettle (*Urtica dioica*)

A chamaephyte with upright stems, leaves with stinging hairs and green, wind pollinated flowers. This plant is restricted to moist, fertile habitats by its high requirements for mineral nutrients. Stinging Nettles are particularly abundant on the banks of rivers and ditches, in verges, hedgerows, manure heaps and fertile disturbed soil. Once established stinging nettles can be very persistent and invasive, spreading vegetatively by means of rhizomes. Stinging nettles do not withstand repeated cutting but do occur in pastures, where they are rarely grazed. Old leaves are palatable to invertebrates and the plant has been used as a green vegetable.

White Clover (*Trifolium repens*)

A chamaephyte or hemicryptophyte with creeping stems, trifoliolate leaves, shallow roots and white or pink flowers. The roots in common with other legumes (see Birdsfoot Trefoil) have nodules containing nitrogen-fixing bacteria. This plant is abundant in moist fertile habitats but is rapidly suppressed by tall vegetation. High levels of nitrates in soil favour the growth of grass relative to clover. White Clover is tolerant of cutting, heavy grazing and trampling and is an agriculturally important component of pastures. Although the foliage is highly palatable to stock some genotypes produce cynogenetic chemicals (see Birdsfoot Trefoil), which gives some protection against invertebrates and small mammals.

Yarrow (*Achillea millefolium*)

A semi-rosette chamaephyte with creeping rhizomes, deep roots and finely dissected leaves. Flourishes in grazed pastures where larger potentially dominant herbs are suppressed. This plant is palatable to sheep and is said to taint milk when grazed by cows. Yarrow is intolerant of competition from taller more robust herbs. If grazed the plant grows close to the ground forming rosettes, in taller vegetation the plant has a more upright habit. The plant has a pungent odour and bitter taste. Yarrow has been used as a source of food, flavouring and medicine.