Technical Information Note TIN088

Illustrated guide to managing neutral pasture for wildlife

Neutral grassland grazed by livestock can be a valuable habitat for many small birds, mammals, insects and other invertebrates. The key to providing opportunities for these animals, and for wild flowers, is to get the sward structure right at key times of the year. This guide illustrates what the sward should look like in the spring, just as the stock are going out to graze; in the early summer when many wild animals will be breeding and the majority of plants will be in full flower; and in autumn as the stock come off the land for the winter.

Traditional species of neutral grassland include skylark, bumble bee, birds-foot-trefoil and red clover

April onwards

At this time of year aim for a mix of relatively short turf so that the low grass will not swamp the smaller plants and wild flowers will get an opportunity to flower; small open patches to provide opportunities for insects to bask and hunt; and a scatter of small clumps of taller grass to give cover to other invertebrates.

Sheep selectively graze flower heads so use other stock early in the season where possible, particularly in flower rich grasslands.

At this time of year look out for early flowers such as celandine and cowslip; insects emerging from hibernation and birds such as skylark and lapwing.

Ideal structure in April

Ideal sward structure in spring

Cross-section of how most of the field should be

In spring aim for a sward structure of:

Between 5-15 cm tall on most (70-80%) of the area.

Scattered clumps and tussocks between 15-30 cm tall on up to 20% of the area.

Scattered scrub on no more than 5% of the area.

Bare ground on less than 10% of the area.

Hunting barn owl

Queen Bumble Bee searching for nest site in tussock

Bare ground

Last winter's hoof marks will provide germination niches for plants and sunning spots for insects. At this time of year up to 10% bare ground, in hoof-sized patches scattered throughout the site, is helpful for wildlife.

Too short in April

Less than 20% of the field should look like the picture below.

The sward in this picture has been grazed so tightly the spring flowers have not been able to bloom. This will deprive insects of nectar and pollen. Overgrazing also increases the risk that nests of ground-nesting birds will be trampled.

There is little or no cover for invertebrates and mammals and the bare ground will encourage germination of annual plants including notifiable weeds such as thistle, dock and ragwort.

Sward too short

Cross-section of too short sward

The sward is too short if:

Most of the sward is less than 5 cm.
Less than 10% of the sward is clumps or tussocks.
There is very little dead plant litter.

Too rank for main area of field in April

Tall grass and wild flowers around field margins provide important food and shelter for invertebrates, amphibians, small reptiles and small mammals. However, long, rank grass smothers smaller herbs.

Apart from a 1-3 m fringe around boundaries and around areas of scrub, only very small areas should be this long.

Only small areas of the field should be long

Too many clumps and tussocks from previous season

The sward is too long if:

Clumps or tussocks 30-40 cm tall form more than 40% of the sward
Less than 50% of the sward is below 10 cm.

June and July

At this time of year many wildflowers and grasses will be in full flower and grasses will be at their maximum height. Grasslands will support nest sites of ground-nesting birds such as skylark and provide feeding for other insect and seed eating birds.

Aim to have plenty of plants in flower; a varied structure of relatively short sward with small open patches for invertebrates that need bare ground and grass growth that does not swamp smaller plants.

Ideal structure

Most of the field should look like this...

Cross-section of what the field should look like

The sward structure is probably ideal if:

The majority of the sward (70-80%) is 5-15 cm tall.

Scattered bare ground covers 2-5% of the area.

Scattered clumps and tussocks about 15-20 cm tall are on up to 20% of the area and they are being grazed down.

Mature shrubs may be present but they are less than 5% of the area and there are few small seedlings of shrubs such as hawthorn.

Bare ground

Invertebrates mate, catch prey and sun themselves in the scattered hoof marks from last autumn.

These gaps will be gradually covered over by germinating seeds and growth of neighbouring plants. However, too much bare ground can encourage germination of notifiable weeds such as thistle, ragwort and dock.

Too short in June and July

Only small areas of the field should look like this. There are few flowers, little nectar for insects and little or no cover for invertebrates and other animals, particularly if the field margins have been grazed out.

Sward too short

Cross-section of sward too short

The sward is too short if:

Clumps and tussocks are tightly grazed to 10 cm or below and cover less than 5% of the area.

The majority of the sward (85%) is less than 5 cm.

Scattered bare ground covers more than 5% of the area.

Too rank for main area of field in summer

Taller field margins provide important food and shelter for invertebrates, amphibians and small mammals, but apart from a 1-3 m fringe around boundaries and scrub, only very small areas should be this long or the smaller wildflowers smothered by grass growth. There will be no open bare ground for invertebrates to feed or breed.

Taller areas should be restricted to the margins

Cross-section of field margin structure

The sward is too long if:

Clumps or tussocks are over 30-40 cm and cover more than 40% of the area.

Scrub is invading the field.

October onwards

At this time of year watch out for invertebrates hibernating in dormant and dead plant material; flocks of redwings and fieldfares feeding on earthworms in the grassland and finches eating the seeds of tall plants.

When you remove stock for the winter aim to leave the sward short enough so that it will not swamp the growth of wildflowers in the spring, but with a scattering of tussocks to provide places for invertebrates and small mammals to over-winter.

Wet areas

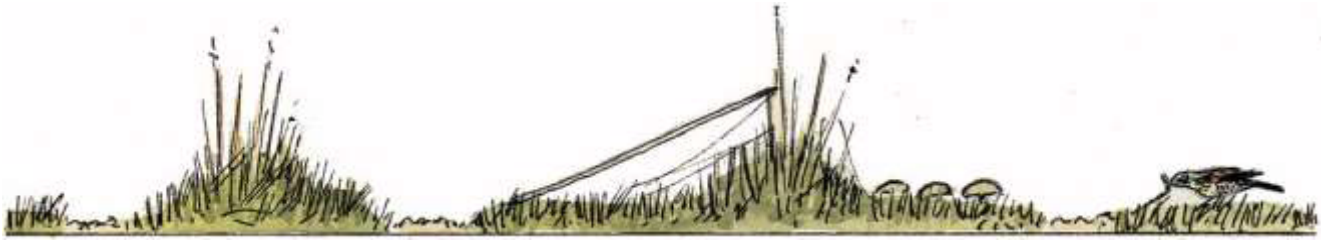
Areas of standing water and damp ground are more common in winter and are crucial for many different animal and plant species. These should not be drained.

Hoof prints

Scattered hoof marks create valuable small gaps in the sward. In spring, these will provide germination gaps for plants and open patches where invertebrates can sun themselves, hunt for food and find mates.

Ideal structure

Most of the field should look like this



Cross-section of ideal sward structure

The sward structure is probably ideal if:

Most of the sward (70-80%) is 5-15 cm high.
There are scattered clumps or tussocks between 15-30 cm tall on between 20-30% of the area.
There are few, if any, shrub seedlings or saplings.
Scattered bare hoof marks cover up to 10%.

Too short over winter

Only small areas of the field should be this short. There is no over-winter cover for invertebrates, amphibians, reptiles or small mammals. However, short swards may be used by wintering birds such as lapwing and golden plover for feeding and roosting.

Too short for the main area of the field

Cross-section of sward too short

The sward is too short if:

More than 85% of the sward is shorter than 5 cm.

Clumps and tussocks over 10 cm tall cover less than 5% of the area.

Bare ground is greater than 10%.

Too rank for main area of field

Apart from a 1-3 m fringe around boundaries and scrub, only very small areas should be this long. Tall vegetation provides vital places for invertebrates, small mammals and amphibians to hibernate, but a rank sward will swamp smaller wild flowers the following spring.

Too long for the main area of the field

Cross-section of sward too long

The sward is too long if:

Clumps and tussocks 30-40 cm tall cover more than 40% of the area.

There is more than 5% scrub.

Queen bee hibernating in tussock

Violet Ground Beetle hunting on bare ground

Environmental Stewardship Agreements

This guidance has been developed to support Environmental Stewardship agreements. It does not replace an agreement and you must continue to follow the prescriptions and specifications.

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