Farming Practice

Chalk Downland – A Positively Sustainable System

Once widespread over southern England, chalk downland is now – with the outstanding exception of Salisbury Plain, which forms the western boundary of the Cholderton Estate – reduced to many small, isolated pockets of land. There are some good examples of natural downland at Cholderton, the best being in the vicinity of the waterworks. Twenty years ago this area was largely covered by a profusion of naturally generated Scots pine and scrub. The trees were 10-15 feet (3-4.5m) tall and so dense that light could not penetrate the canopy and all the ground vegetation had disappeared. The young trees were thinned very thoroughly, leaving a few examples to provide diversity, structure and shelter. For the first three or four years there was little to be seen. Many areas remained quite bare, or were colonised by fescues and other grasses. However, within six years it became apparent that a sophisticated downland flora was developing; this was assisted by reduced late-season grazing (after seed set), and by the absence of grazing during flowering and the seed-maturing period. It is evident that the site had a tremendous seed bank and that all that was required was sympathetic management.

Today this downland is seasonally spectacular. The spring brings cowslips and carpets of milkwort in blue, white and purple patches, followed by huge areas of horseshoe vetch, its yellow flowers buzzing with bees and early season butterflies. As summer progresses, the range of flowering species develops to include orchids, dropwort, kidney vetch, bastard toadflax, thyme, oxeye daisy, squinancywort, wild clary, scabious, field fleawort and many others. The autumn brings an abundance of black and lesser knapweed and felwort.

To appreciate downland properly, find a comfortable spot and sit down for a while among the grasses and flowers. Only then can the colours and scents that fill this micro environment be fully appreciated. There will be a multitude of flying insects: bumblebees droning past, robberflies poised on lookout posts, whirring skipper butterflies, floating and tumbling marbled whites, meadow browns, gatekeepers, gliding tortoiseshells and red admirals. Voles and lizards run through the grasses, rabbits graze and the ever watchful kestrel hovers overhead.

Practical Considerations

Downland is being recreated at Cholderton through the auspices of the Countryside Stewardship Scheme. Almost all fields have been cropped from Victorian times, but many are bordered by areas of herb-rich ground. The intensive ryegrasses have been removed by ploughing and a new mixture of downland grasses comprising red fescue, crested dogstail, cocksfoot, sheep's fescue at 25lbs per acre (14kg per 0.5ha) has been sown, using spring barley as a cover crop. When the barley is harvested, the grasses are protected by the residual stubble over the winter and grow away vigorously in the spring.

It is not advisable to add wildflower seed initially. The new grass will grow too vigorously in the first two or three years, shading out the more delicate flowering species. Hay should be taken in late July or August and the aftermath grazed lightly. Once the process of nutrient stripping has been completed, and the vigour of the grass has been dampened, the wildflower seed can be introduced. This can be either cast by hand over the field, or scratched in using a tined weeding harrow with a grass-seeding attachment. Annual weeds are easily removed by cattle and sheep grazing. The loss of nutrients to the grass will allow many species to colonise, particularly cowslips and horseshoe vetch. Birdsfoot trefoil and rest harrow can soon dominate in some areas. Thyme will appear where the soil is particularly thin. Soon bedstraw, scabious, kidney vetch, felwort, medick, sainfoin, hieracium spp, knapweed and many others will be seen.

Gathering Seed

Much of the wildflower seed is grown on the Estate. It is gathered, and then sown during the autumn. Autumnal sowing allows the seeds a greater time to germinate and become established during warm periods in the winter. Spring sowing is unreliable as the young plants have to compete with the grasses and, in a new ley, with annual arable weeds. Selected fields that were growing cereals ten years ago were put into the Set Aside Scheme and allowed to regenerate naturally; today up to 100 species of plants have been identified in some of these fields, together with diverse populations of invertebrates. The fields are being fenced and will be grazed appropriately to allow some scrub growth and yet maintain the species content and sward heights.

Further Reading

Downland landscapes and individual photographs of flowers and insects taken at Cholderton feature in a magnificent new book by **Charles Flower**:

Where Have All the Flowers Gone?
Restoring Wildflowers to the Garden and Countryside
Photography by Mike Bailey & Steve Williams
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