

Wildlife meadows

Extracts from Nibblers online discussion group

I have built a wildlife paddock of about half an acre which edges the river ouse and large willows. Planting is existing grasses with plugs of ragged robin purple loosestrife etc to give colour in spring and autumn. I mow wide paths through this meadow and at present have a nightmare job at year end cutting long wet soggy and dead grass.

If I just left this grass would it kill the perennials? Anything to recommend? Cheers Michael

Dear Michael,

If you did it would just crowd out the wildflowers. You could sow Yellow Rattle into the sward in the autumn, now. This would parasitize the grasses and over a couple of years would reduce their competitiveness. You would also have to cut and remove the whole site every year you wanted the Yellow Rattle to persist as it is an annual.

Can you not get some thing to graze your meadow from mid august till the forage is gone? It would make your life much easier.

Yours
Charles

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Michael

Charles is right, leaving the meadow uncut (and ungrazed) would result in loss of your introduced plants and ultimately to scrubbing up/overgrowing with willows. You say the difficulty is with mowing at the year end. Can you not mow earlier (e.g. late July) and then mow again in September-October?

Mowing with aftermath grazing is by far the best regime for wildflower meadows, but whatever you do, they need management. Yellow-rattle is useful to reduce grass dominance, but it is a spring germinator (the seed needs chilling over winter before it will germinate) and therefore will struggle to emerge through a lot of rank grass and litter if the previous year's growth is left unharvested.

The main reason why species-rich meadows are so scarce is that they need appropriate management, not just leaving alone (unfortunately)!

Francis

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Agreed, though yellow rattle may not persist if your pasture has a high water table. It is a fickle establisher at the best of times. Late summer grazing sounds like the best option if

cutting is not practical.

As crowding out would be likely to take several years, would you consider cutting and clearing areas on a rotational basis? Or using a collecting flail such as those sold by Ryetec? Even a normal flail would be better in the long term than simple abandonment, although at least periodic removal of the annual growth is usually recommended.

Regards,
Henry

We have a couple of small, unimproved grassland sites where grazing isn't feasible. We manage them by mowing in mid-late summer (whenever we can fit it in). The site doesn't get aftermath grazed but doesn't seem to be declining botanically (but it is a relatively short, limestone sward with so many herbs in it that grass isn't really a problem), although we do rake up the mowings into a number of piles around the edge of the site. Not sure what he's mowing with? We use a reciprocating mower which copes pretty well with overgrown vegetation that just gets cut on an annual basis. We have a mini-tractor and flail but find that this means we can't rake cuttings up so we tend to avoid using that. It's great to hear of people trying to diversify their grasslands - but I would suggest that they try and resolve the long-term management issues before spending any more money on establishing plugs.
Helen

Yes.

But you could reduce the problem and improve the appearance of the meadows for flowers by mowing and collecting all cuttings at the end of March/beginning of April as well - judge the best time to do this depending on what flowers are coming up to flower at this time - cuckoo flower?, and mow before they do. This would remove all winter growth and reduce the total in the following autumn. Be careful with vigorous plants like purple loosestrife - they would be better near the river, and not in the meadow as such. Keep the smaller plants in the meadow, then the mowing would benefit these. Leave the tall herbaceous strip next to the river uncut for small mammals, invertebrates etc. You could alternatively treat the meadow in a patchy fashion depending on where the shorter and taller species are. Taller species like the loosestrife and meadowsweet do not necessarily need annual cutting, although a clear out occasionally would be good, but shorter areas with less vigorous species need cutting and the material removed annually at least to prevent smothering by grasses and dead leaves etc. Depends on the extent of rushes too, and the needs of any ground nesting birds!

Hope this helps
Penny Anderson

I have created a small meadow from seed on an ex horse ménage in my garden (1000' up in the Peak District). I can only cut it - once annually in September/October, plus again at the end of March/beginning of April to take off any winter growth of grasses and thus minimise their competitiveness (there are no breeding birds in it), and occasionally hire a golf course scarifier which I can set at different heights to pull out the litter and moss, then remove (garden mower with collecting box) to collect pulled out litter etc. This seems to maintain the richness that has developed, including 2 species of orchids. Any droughted weather helps to keep grasses in check as well. After about 8 years it is still looking nice, and supports quite a few butterflies and other invertebrates. Some of it did parch off this year with the hot weather - it is on indurated limestone chert after all! One day I will publish the data I have collected on its development!

Hope this is useful to someone out there. I have quite a lot of experience managing grasslands without grazing if you need any more information.

Penny Anderson

Penny

Very interesting about your garden wildflower meadow. I also have a small one in my garden which supports a lot of wildlife and which I manage similarly to yours, except that I sometimes cut again in October, depending upon how late I took the first cut - this varies from late July-early August

to early September. My garden is at lower altitude than yours in the balmy south west and on a clay soil. I think the scarification is important, though, and I usually do this in the autumn, after cutting, and sometimes in early spring. This causes some useful disturbance, breaks up stolons etc, and provides niches for germination and establishment. The idea is to mimic some of the functions of grazing animals which, as we know, do a lot more than just remove vegetation. In the past I have oversown yellow rattle in the autumn, before scarification, when I felt that the grasses had become a bit too dominant.

I would guess that this regime could be applied on a larger scale by using a mower and chain harrows in place of grazing animals, if these were not available. I have not done any experimentation to see how important the various elements are, though - I do wildlife gardening as a relaxation, after all!

Francis

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Francis - this sounds like a southern and more vigorous version of my meadow (it is about 500m²). Mine too is leisure habitat creation, so although I do take quadrats each year, I don't experiment. However, I have not had to re-add yellow rattle, and the eyebright I put in in the first year is still there. I have also used the scarifier only once in the 8 years it has been established, but will probably use it next spring - I think it is better to use it then up here as it disperses the tangle of stolons etc before the yellow rattle gets going. I collected all the seed myself by hand locally around road verges etc.

I am also lucky enough to have a pasture field of 1 acre which I can treat agriculturally. This I herbicided off in August 2003, the farmer then cut it for me, and used an acrobat to windrow all the cut material. I then raked this up (did not do my back any good mind you), then he scarified it using a tyne harrow lots of times in lots of directions. I did not plough as the previous owners had been horsey people and there were rather a lot of docks - I did not want the seed bank to establish. Anyway, it wasn't necessary, and ploughing/rotovating would have resulted in a nutrient flush I did not want.

The field had received no fertilisers for about 10 years when I treated it, although the P levels were still a bit too high. I then spread flower seed (no grasses) by hand, having also collected it by hand as before (hard work to get enough), and left it to grow. I kept grazing animals out till the following July when the yellow rattle had seeded, and then let grazing in till it got too wet in October. I have no control of the grazing - just open the gate or not.

In 2005, I had little early spring grazing as it was so wet (clay soils on shales), and shut the field up in mid April so that I could enjoy the flowers. It then grew too much and lodged, so I had to get the farmer to cut it for hay in mid July when the yellow rattle had flowered. I then grazed it till Christmas (sheep in winter and spring, plus a few cattle calving intermittently in summer), and then again in April to mid May this year. Grazing it much later into the spring

was really useful - it controlled the grasses, but did not affect the yellow rattle or other broad-leaved plants. It was also fairly dry and cold this spring, so that helped. I then shut it up till mid July again - the biomass was much reduced compared with last year, the flowers looked great - buttercups, sorrel and oxeye daisies especially. Then knapweed and devils-bit scabious have managed to flower whilst being grazed. If weather permits I shall adopt this seasonal grazing in future as well.

The normal nature conservation grazing pattern I see is to remove or reduce grazing in spring and summer to permit the flowers to flower and set seed, and then to graze (cutting hay or not first). I want to keep this as pasture as it is rather fiddly and small to cut for hay, and anyway, I thought there was more of a challenge to restore a pasture rather than a hay meadow - seems to be working quite well, although I should have collected more seed than I did. The rate of application was only about 10ks/ha equivalent, which is quite low, and most of the grass species previously present have re-established.

Hope this interests someone. One day I will publish the data I have collected!

Best wishes

Penny Anderson