

Recommended Meadow Restoration Plan





Please discuss any queries or variations you are considering with Caroline or Sue.

Summary of Restoration Plan

| Date | Activity |
|--------------------|-------------------------|
| May - Jun | Perennial weed control |
| Jun - Aug | Create short sward |
| Aug - Sept | Create bare ground |
| Aug - Sept | Broadcast seed |
| Aug - Feb (Year 2) | Control grass re-growth |
| | |



Restored meadow after four years

| Date | Activity |
|------------|---|
| May - June | <p>Perennial Weed Control</p> <p>If any of the perennial weeds listed below are present in more than 10% of the receptor meadow they should be spot sprayed or pulled during the early summer prior to the start of the restoration ground preparation.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Creeping Thistle</p> </div> <div style="text-align: center;">  <p>Common Nettle</p> </div> <div style="text-align: center;">  <p>Hogweed</p> </div> <div style="text-align: center;">  <p>Dock</p> </div> </div> <p>Download detailed guidance at the links below:</p> <p>Hogweed - http://www.magnificentmeadows.org.uk/assets/pdfs/Hogweed.pdf</p> <p>Creeping Thistle - http://www.magnificentmeadows.org.uk/assets/pdfs/Thistle Control in GrasslandLA TEST.pdf</p> <p>Dock & Nettle - http://www.magnificentmeadows.org.uk/assets/pdfs/Rush nettles dock control LAT EST.pdf</p> |

June – July

Create Short Sward (2" or less)

You need to get the grass as short as possible, before preparing the meadow for restoration. This can be done in a number of ways:

- Taking a hay cut followed by aftermath grazing
- Cutting and collecting the grass for silage for simply removing the grass using a flail collector
- Grazing as short as possible.

If you take an early hay cut, ideally follow this with grazing to maintain the short grass until spreading the green hay. It's critical that the grass is as short as possible before trying to create any bare ground.



Hay making



Flail collector



Graze as short as possible

Creating Bare Ground

1. Create at least 50% bare ground (if possible 75%) using suitable equipment (See equipment for creating bare ground).
2. Use as few passes as possible to avoid compaction.
3. Carry out these operations when the weather has been dry and the soil is not too damp.
4. Bare ground creation should be done as close as possible to broadcasting seed, so that soil is open to receive seeds.

Creating bare ground has two purposes, allowing the seed to make contact with the soil and suppressing the grass to allow for germination of the wildflower seeds. The following machines may be suitable depending on your site and ground conditions:

Equipment for Creating Bare Ground

1. **Power harrow** (set very shallow no more than 1 inch) This is not a standard agricultural operation. You will need to check and set the machine until you get the desired results.
2. **Tyne harrow** (will require multiple passes and is less effective on dry ground)
3. **Chain harrow** (will require multiple passes and is less effective on dry ground)
4. **Flail collector & Tine harrow** (can collect and scarify to create bare ground in single pass) This is best combined with a harrow pass following the flail.

Note: To be effective the grass must be as short as possible before using any of these machines.

Aug - Sept



Flail Collector after hay



Tine Harrow after hay cut



Power Harrowing after hay cut



Example of bare ground ready for restoration

| | |
|-------------------|---|
| <p>Aug - Sept</p> | <p>Broadcasting Seed (Seed must be left on surface)</p> <p>Broadcast the seed mix on the surface at a rates of 20 kg per ha for arable reversion and 2 kg per ha for crop grown seed using suitable equipment (See equipment for sowing). You may need to improvise on the day, depending on what machine you are using until you get it right to avoid waste of seed and effort in long term</p> <p>For even distribution, and to avoid running out of seed part way through a job, split the quantity to be sown in half, then sow the entire area twice at half rate. Sow the first half in one direction, and then over-sow the remaining seed in another direction. Any errors in sowing the first half of the seed can be made good when sowing the second half.</p> <p>Broadcast the seed in any way that keeps the varying sizes of wildflower seeds evenly distributed in the seed hopper/bucket. Consider using a filler such as sand when broadcasting very low seed rates</p> <p>Sowing Equipment</p> <ul style="list-style-type: none"> • by hand, • slug pelleter, • fertiliser spreader • air seeder • seed drill with coulter on the surface, <p>After sowing roll or put livestock back onto the recipient meadow. This will help push the seed onto the soil surface and aid germination.</p> |
|-------------------|---|

| | |
|---------------------------|--|
| <p>Aug – Feb (Year 2)</p> | <p>Control Grass Re-growth</p> <p>If possible put livestock back on the recipient meadow. The aim is to keep the grass short (ideally <10cm long). Grazing may be needed right through the autumn and into the following year if the weather is mild and grass continues to grow. This should help maintain some bare ground and suppress the grass enough to improve the establishment of the wild flower seedlings.</p> <p>This grazing period should end either when your meadow becomes too wet, stock run out of grass or at the end of March. If it becomes too wet livestock can poach the ground and damage the meadow. If livestock are not removed from your meadow by the end of March, they will start to eat the very flowers your trying to encourage, especially annuals such as Yellow rattle.</p> <p>Tip: You will need to be in your meadow regularly during February and March to look for the first signs of yellow rattle.</p> <p>If grazing is not possible a late cut and collect could be used to reduce grass during the autumn.</p> |
|---------------------------|--|



Restoration in early March after restoration



Yellow Rattle Seedling, (feb - mar)



Cut and collect to mimic autumn winter grazing

| | |
|-----------------------------|--|
| April to June/July (Year 2) | <p>There are two options depending on the dominance of grass in your meadow</p> <p>Option 1</p> <p>Remove livestock from the meadow and shut up until yellow rattle has flowered and set seed. (typically mid to late July) Then take a hay cut</p> <p>Option 2</p> <p>Control grass regrowth by topping. Pull or spot-treat perennial weeds. If Yellow rattle is present, don't close mow (<10cm) before Yellow rattle has set seed (typically mid July)</p> |
| July to Sept (year 2) | Mow or lightly graze the sward to 5-10cm for the remainder of the growing season |

| Year 3 onwards | Establish the future management regime, either traditional hay meadow or permanent pasture | |
|----------------|--|--|
| | Hay Meadow | Grazed Pasture |
| | Cut for hay in late July or early August, grazing or mowing the aftermath through the autumn and winter, ground conditions permitting. | The main grazing period should be from late summer to autumn winter, with optional light spring grazing. |

Common Wild flower Seedlings



Yellow Rattle Seedling



Buttercup Seedling



Common Sorrel



Common Knapweed Seedling



Oxeye Daisy



Ribwort plantain