

Wildflower Meadows and Cornfields

Fact sheet No. 35



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Meadows are among the most diverse habitats in the British Isles. Very few habitats can boast such a rich tapestry of flora and fauna. Sadly, the swathes of wildflowers, home to numerous species of butterfly, grasshopper, invertebrate and bird are becoming less familiar due to modern farming practices. In the last fifty years, 95 per cent of our flower rich meadows have been lost and many are still under threat.

Why are Wildflower Meadows Important?

Wildflower meadows are an important habitat for many species of insect, bird and mammal. Insects need specific plants on which to feed and lay their eggs. For example, the common blue butterfly lays its eggs on bird's-foot trefoil. Some insects cannot survive without certain species of plant. The caterpillars of the small copper butterfly feed only on common sorrel, and the marsh fritillary feeds only on devils-bit scabious. If these flowers die out, so do the butterflies.

Wildflowers can also give accurate clues to the history of a meadow. For example, cowslips, green-winged orchids and ox-eye daisy are signposts to an ancient pasture that has not been ploughed, fertilised or reseeded.

Creating a Wildflower Meadow from seed

The creation of a wildflower meadow in a garden is relatively easy. A meadow does not have to be a large expanse of land. All that is required for a successful wildflower meadow is a sunny spot in the garden.

Soil Type

Wildflowers are more likely to thrive in poor, un-nourished soil. They do not have to compete with rampant plants such as nettles and vigorous grasses, which thrive in nutrient-rich conditions. Do not despair if your garden soil is rich in nutrients. There are ways around it. Removing the top-soil in a garden may sound extreme but it is in fact one of the best ways to reduce the fertility of your soil. If your garden soil is particularly rich then an effective treatment is to include yellow rattle in your seed mix.

This plant is an annual but will grow well with wildflower perennials. It is partially parasitic on the roots of most grass species, and will help to reduce their growth and prevent them from swamping the wild flowers.

Ground Preparation

Creating a new meadow from seed will work best if the area is free from weeds such as nettles, thistles, docks and vigorous grasses, such as couch grass. The ground that has been chosen needs to be bare, this involves removing the turf and raking over the soil underneath to extract any leftover plants. It is a good idea to leave this bare ground for several weeks to allow any annual weeds to germinate. These can then be removed by hand before sowing your seed mix.

Sowing your meadow seeds

Packets of wildflower and grass seed mixes are available from most garden centres. Alternatively individual species seed packets can also be purchased, these will need to be mixed by hand before sowing. Please contact the Wildlife Information Service for factsheet no. 30 Native Wildflower Seed Suppliers.

Meadows can be sown in either autumn (September/October) or spring (March/ April). Most gardeners are more active in spring, but an autumn sowing guarantees a good start for those species that benefit from a frost. These include vetches, bird's-foot trefoil and cowslips.

Flatten the bare ground before sowing, by rolling or walking on it. Sprinkle the seeds all over your meadow plot. Do not cover them with soil because they need light to help with germination. Gently press the seeds down firmly onto the soil with your hand or by using the back of the rake to stop the wind from blowing them away. Put up small flags or hang CDs or plastic bottles above the plot to deter the birds from eating the seed. Water the plot lightly if there is no rain forecast.

Recommended Grasses for a Meadow

Brown bent, fine bent, crested dog's-tail, downy oat-grass, red fescue, sheep's fescue, meadow barley, meadow foxtail, rough meadow-grass, quaking grass, sweet vernal-grass, wavy hair-grass, and yellow oat-grass.

Wildflower Meadow Management - Spring Meadow

Leave the meadow uncut from autumn until late June leaving any plants to flower and set seed. Try to cut it to a height of no less than 10cm (lawnmowers tend to cut the meadow a lot shorter than is necessary) so a hand held scythe or strimmer would do the job more effectively.

Wildflower Meadow Management - Summer Meadow

Cut the meadow fortnightly until May. Then leave it until September or October. This allows flowering over the summer. Cut the meadow again once all the flowers have seeded. If the grasses become too dominant introduce a summer cut in June or July. If you have a meadow with a mixture of summer and spring flowering plants then follow the summer meadow regime.

For both spring and summer meadow, leave the cuttings to dry for 24 hours and then walk all over them to ensure all the seed heads are pushed into the soil. The most important part of meadow management is raking up the cuttings to prevent the build up of rotting vegetation, which stifles wildflowers and favours stronger growing grasses. The less fertile the soil the better your wildflower meadow will look.

Wildflowers to grow in a meadow				
Common Name	Scientific Name	Flowering Period	Soil Type	Flower Colour
Agrimony	<i>Agrimonia eupatoria</i>	June-Sept	Prefers chalk	Yellow
Autumn hawkbit	<i>Leontodon autumnalis</i>	June-Oct	All	Yellow
Bird's-foot-trefoil	<i>Lotus corniculatus</i>	June-Sept	All but acid	Yellow
Black medick	<i>Medicago lupulina</i>	April-Aug	Fertile	Yellow
Bugle	<i>Ajuga reptans</i>	April-June	Damp	Blue
Common cat's-ear	<i>Hypochoeris radicata</i>	June-Sept	All	Yellow
Common restharrow	<i>Ononis repens</i>	June-Sept	Chalk	Pink
Common toadflax	<i>Linaria vulgaris</i>	July-Oct	All	Yellow/ orange
Common vetch	<i>Vicia sativa</i>	May-Sept	All	Pink/ purple
Cowslip	<i>Primula veris</i>	March-May	Basic	Yellow
Cuckoo flower	<i>Cardamine pratensis</i>	April-June	Damp	Pink/white
Daisy	<i>Bellis perennis</i>	March-Oct	All	White
Field scabious	<i>Knautia arvensis</i>	July-Sept	Dry	Pink
Goat's-beard	<i>Tragopogon pratensis</i>	May-July	All	Yellow
Greater knapweed	<i>Centaurea scabiosa</i>	June-Aug	Chalk	Purple
Harebell	<i>Campanula rotundifolia</i>	July/Sept	Chalk	Blue/ purple
Hoary plantain	<i>Plantago media</i>	May-Aug	Most	White
Kidney vetch	<i>Anthyllis vulneraria</i>	July-Sept	Dry	Yellow
Lady's bedstraw	<i>Galium verum</i>	July-Aug	All	Yellow
Lesser stitchwort	<i>Stellaria graminea</i>	May-Aug	Acid	White
Marsh marigold	<i>Caltha palustris</i>	March-May	Wet	Yellow
Meadow buttercup	<i>Ranunculus acris</i>	May-Aug	All	Yellow
Meadow cranes-bill	<i>Geranium pratense</i>	July-Sept	Most	Blue/ purple
Meadow saxifrage	<i>Saxifraga granulata</i>	April-June	Dry not acid	White
Meadow vetchling	<i>Lathyrus pratensis</i>	May-Aug	All	Yellow
Mouse-ear hawkweed	<i>Pilosella officinarum</i>	May-Aug	Dry	Yellow
Oxeye daisy	<i>Leucanthemum vulgare</i>	May-Sept	Fertile	White
Perforate St-John's-wort	<i>Hypericum perforatum</i>	July-Sept	Chalk	Yellow
Ragged robin	<i>Lychnis flos-cuculi</i>	May-Aug	Damp	Pink
Red clover	<i>Trifolium pratense</i>	May-Sept	All	Red/ white
Ribwort plantain	<i>Plantago lanceolata</i>	April-Oct	All	White
Salad burnet	<i>Sanguisorba minor</i>	May-Aug	Chalk	Pink/green
Self heal	<i>Prunella vulgaris</i>	July-Sept	All	Pink/ purple
Snakes-head fritillary	<i>Fritillaria meleagris</i>	April-May	Damp	Deep red
Snowdrop	<i>Galanthus nivalis</i>	Jan-March	Damp	White
White clover	<i>Trifolium repens</i>	July-Sept	All	White
Wild basil	<i>Clinopodium vulgare</i>	July-Sept	Chalk	Red
Yarrow	<i>Achillea millefolium</i>	July-Aug	All	White
Yellow rattle	<i>Rhinanthus minor</i>	May-Aug	All	Yellow

Creating a Cornfield from Seed

A cornfield is a very colourful and pretty alternative to creating a meadow. Cornfields are different to meadows in a number of ways. Meadows usually contain grasses and perennial wildflowers, whereas cornfields contain arable wildflowers such as poppies that are annuals. The soil does not need to be low in fertility in a cornfield.

To achieve the best result, sow your cornfield in a location that is sunny for the best part of the day. This stops the brightly coloured flowers from wilting early. Follow the preparation and sowing instructions for creating a meadow, and again these seeds need light so do not cover them with soil but gently tap them down with the back of the rake to make sure they are secure.

The main five species to put in your cornfield are: corn or field poppy (*Papaver rhoeas*); corn marigold (*Chrysanthemum segetum*); cornflower (*Centaurea cyanus*); corncockle (*Agrostemma githago*); and corn chamomile (*Chamaemelum nobile*). Other species might be included in the mix you buy such as white campion (*Silene alba*), scented and scentless mayweed (*Tripleurospermum maritimum* & *Matricaria recutita*), scarlet pimpernel (*Anagallis arvensis*) and corn buttercup (*Ranunculus arvensis*).

Cornfield Management

Cornfields need very little management. September is the time of year to pull up the dead flower stalks, shaking them to loosen all the seeds out onto the soil. Perennial weeds that may have crept back into your cornfield will need to be pulled out gently so as not to disturb the new seeds. Once you are happy with the plot walk over the bare ground to secure the seeds once again.

Contacts

If you would like more details about wildflower meadows and cornfields or a list of Native Wildflower Seed & Plant Suppliers then please contact the Wildlife Information Service.

Further Reading:

- Jenny Steel (2001) "Meadows and Cornfields" ISBN 0-9541116-0-5 Webbs Barn Design
- Fran Hill (2000) "Wildlife Gardening" ISBN 1-871444-00-4 J M Tatler & Son Ltd

A large print version of this fact sheet is available on request; please contact BBOWT's Wildlife Information Service on (01865) 788307.

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For more information please contact
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