

How to: Create and manage a wildflower meadow



True wildflower meadows are rare and beautiful habitats that have almost disappeared from the countryside. They require special conditions and management and are NOT easy to create in a typical garden. But it's worth trying!

Photo: Steve Head

What is a wildflower meadow?

Wildflower meadows have a mixture of many species of grasses and flowers growing together and persisting (with management) over many years. The key feature is that the grasses are not able to outcompete the flowers, because of low fertility soil and/or special management. Since most established gardens are very fertile, this presents problems, and grasses generally crowd out the flowers.

Alternatives to true meadows

Life is a lot easier if you limit your ambitions!

- Changing how you manage your lawn is a real option – and very easy. You can certainly get more species flowering in it if you follow the tips in our guide “[How-to: make a lawn more wildlife-friendly](#)”
- If your main aim is to get lots of long-lived wildflowers into your garden – for their own beauty and for other wildlife, then simply make a flower bed for them, and sow perennial wildflower seeds appropriate for your conditions (soil and sun)
- If you would like an amazing splash of annual colour, follow the instructions in our guide “How-to: create a bed of annual flowers for wildlife”. Some of the species you can plant are now very rare in the countryside – and you can re-sow the bed every year if you want.

Making a true wildflower meadow

There are two approaches you can try. One is hard work but cheap, the second is easier but pricy

Doing it the brave way

- Decide how big you want it to be – this is going to be hard work, and if you like the result you can always enlarge it later.
- Plan to sow the meadow with seed in September/October, so it can benefit from winter rain and make a good start in spring
- Decide what mix of species of flowers and grass to sow, depending on soil and sun conditions, and order them from a [specialist supplier](#). Allow about 5gm seed per square metre
- To reduce the fertility, you need to remove at least 10cm of topsoil. If it is a lawn, remove the turf and either re-lay it elsewhere, or make a turf pile out of the way that over a year or two will compost down to good soil.
- If you can lose 10 or more cm of topsoil elsewhere in the garden, dig it out and carry it away leaving infertile subsoil exposed. Taper the edge of the resulting hole so it becomes a shallow bowl
- If you can't dispose of the topsoil, its more work! Spread a tarpaulin right by the edge of the meadow-to-be, and dig out the top 10cm or more of fertile soil and pile it on the tarpaulin
- Spread another tarpaulin, and now dig out *another* 10cm or more of the deeper, less fertile subsoil, piling it on the new tarpaulin.
- Now shovel the topsoil into the bottom of the hole and stamp or roll it down firmly
- Now shovel the subsoil back *on top of* the topsoil so that only the low fertility subsoil is at the top, and firm it down
- Leave it for two or three weeks, so any weed seeds germinate, and you can hoe them out.
- Once the surface is clean, rake it to make a seed bed, and sow your seed mix as evenly as you can. Thoroughly mixing it with fine sawdust can make this easier since you can see where you have spread it. Rake it in lightly, and tread down
- Put up some wind-blown shiny bird scarers like old CD discs to keep hungry birds off.
- Water regularly if the weather is dry, but not enough to make the seeds float away.
- Germination will start in a few weeks, but some flower seeds will need a winter chill, and the meadow will take some years to come to equilibrium. You will need to manage it carefully



Photo: Caroline Harcourt



Photo: Helen Bostock

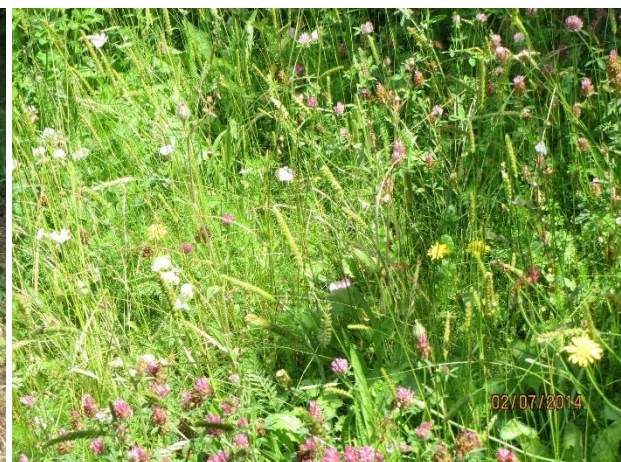


Photo: J.M. Staines

However you make wildflower meadows, they can be gorgeous

Doing it the expensive but easier way

- Recently, wildflower turf has come onto the market, largely due to the ingenuity of James Hewetson-Brown. It contains only wild flowers, but grasses will soon seed into the new meadow if you let them (or actively sow some from the list below). Wildflower turf arrives in rolls just like lawn turf. Like ordinary turf, it's best to lay it in the early spring or autumn when rainfall is more likely.
- Decide on the type of wildflower turf you need to suit your soil type and sun.
- Wildflower Turf comes in a minimum area of 15m². You could arrange to share it with a neighbour reducing the cost.
- Clear deep-rooted weeds, especially docks and thistles from the meadow area. The turf will smother small weeds and grass patches. Rake or loosen the soil so that the turf base can make good contact with the soil to ensure it keeps moist.
- Lay the turf just as with a lawn, without gaps, and gently tread or roll it down.
- Water regularly if the weather is dry. The flowers in the turf will start growing immediately



Wildflower turf being laid, and the result after a month Photos: Steve Head

Target species: Plants This list is based on the standard [Emorsgate](#) meadow mix

Grasses: (These are slower growing and less competitive)

Common bent	<i>Agrostis capillaris</i>	Smaller cat's-tail	<i>Phleum bertolonii</i>
Crested dogtail	<i>Cynosurus cristatus</i>	Red Fescue	<i>Festuca rubra</i>
Smooth-stalked meadow-grass	<i>Poa pratensis</i>		

Flowers: Many of these are described in our [wildplants](#) website section

Common knapweed	<i>Centaurea nigra</i>	Selfheal	<i>Prunella vulgaris</i>
Meadow crane's-bill	<i>Geranium pratense</i>	Meadow buttercup	<i>Ranunculus acris</i>
Field scabious	<i>Knautia arvensis</i>	Yellow rattle	<i>Rhinanthus minor</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>	Common sorrel	<i>Rumex acetosa</i>
Black medick	<i>Medicago lupulina</i>	Red campion	<i>Silene dioica</i>
Ribwort plantain	<i>Plantago lanceolata</i>	Bladder campion	<i>Silene vulgaris</i>
Salad burnet	<i>Poterium sanguisorba</i>	Cowslip	<i>Primula veris</i>

Target species: Animals

Your new meadow will be a magnet for all sorts of insects, spiders, small mammals and birds. In particular, look out for brown butterflies like the gatekeeper and meadow brown which feed on grass, and watch pollinators on the flowers.

How easy is it to do?

Making a meadow from seed has to be classed as very hard. Using turf, it is much less so.

How much will it cost?

- The hard-work method costs only the price of seed, which is very cheap – about £10 for 50gm, covering up to 20 square metres. Some mixes include annuals for a good show of colour in the first year of sowing.
- Wildflower turf costs about £400 including delivery and VAT, for 15m².

Managing your new meadow

- If you used a grass and flower seed mix, you should mow it regularly in the first year every couple of months with a cutter height of about 5cm to hold back the grass. Remove all the cuttings to compost, don't let them lie. Nothing much will flower unless you have included some annuals in the mix, in which case enjoy them, but mow before they finish flowering.
- Carefully remove by hand all unwanted "weeds" that appear, concentrating on docks, nettles and stray coarse and strongly-growing grass.
- In later years, take an early spring cut with the mower set to about 5cm to take off the taller grass, remove the cuttings, then *do nothing* (except weed) so that the plants can grow up, flower and set seed.

- In autumn, by which time it will look a bit ragged, again trim or mow it to 5cm, and remove all the cuttings to compost. If it is a warm wet autumn, it might need cutting again if the grass grows high.

How effective is it for the target species?

If you do it properly and manage the meadow assiduously it really can work!

Golden rules – what the science tells us

- Fertility makes grass out-compete other plants, so you must minimise fertility for a true meadow grass + flowers blend.
- Never allow mown grass to stay on the meadow – it will rot and increase the fertility
- Be patient, only some of your wildflowers will appear in the first years
- Leaving the meadow well into autumn before cutting lets the flowers shed their seeds to boost numbers next year.
- The mix of species will evolve over time as those best adapted to your garden become dominant. Some will disappear, some new ones might appear from nowhere.
- Adding yellow rattle to the seed mix is a great help in reducing the dominance of grasses

What to look for?

Keep a record and photos of flowers and insect, and how the meadow evolves through time – the changes from year to year are fascinating.

Things to be aware of

- Sown meadows really don't look great in their first year, so be patient
- Lawns are meant for walking on. Meadow flowers are mostly tall (to grow above the grass) and will not flower if you trample all over them. Meadow areas are not for playing games on!
- Special wildflower turf can be spread over structures to create green roofs
- Establishing and managing a true wildflower meadow in a garden is about as tricky as wildlife gardening gets, so be proud of yourself for trying and even prouder if it works!

Further information

How-to: create a [bed of annual flowers](http://www.wlhf.org/ht_annual_bed.pdf) for wildlife www.wlhf.org/ht_annual_bed.pdf

How-to: make [a lawn more wildlife-friendly](http://www.wlhf.org/ht_improve_lawn.pdf) www.wlhf.org/ht_improve_lawn.pdf

Our page on [Yellow rattle](http://www.wlhf.org/rhinanthus.html) www.wlhf.org/rhinanthus.html

Our page on [plant suppliers](http://www.wlhf.org/plant_suppliers.html) www.wlhf.org/plant_suppliers.html

Our pages on [wildflowers](http://www.wlhf.org/top_wildflowers.html) from www.wlhf.org/top_wildflowers.html

Our pages on [meadow flowers](http://www.wlhf.org/meadow_flowers.html) www.wlhf.org/meadow_flowers.html

Natural England [booklet](http://www.wlhf.org/ne32wildflower_meadows[1].pdf) [www.wlhf.org/ne32wildflower_meadows\[1\].pdf](http://www.wlhf.org/ne32wildflower_meadows[1].pdf)

[Emorsgate meadow](https://wildseed.co.uk/mixtures/view/3) mix <https://wildseed.co.uk/mixtures/view/3>

Books

- How to make a Wildflower Meadow. James Hewetson-Brown (2016) Filbert Press.

Highly recommended, full of information and illustrations of all techniques

- Sowing Beauty, Designing Flowering Meadows from Seed. James Hitchmough (2017) Timber Press. *Lots of technical information, lists of suitable species and amazing real-life examples*
- Meadows. George Peterken (2013) British Wildlife Publishing. *A fascinating monograph of the history and management of classic country meadows, and their importance for our culture by one of our top ecological botanists.*
- Meadows. Christopher Lloyd (2004) Cassell Illustrated. *A lovely book by the inventive and iconoclastic creator of Great Dixter gardens. Lots about variants of meadows with non-native plants, and cornflower annual "meadows".*