



**Derbyshire**  
Wildlife Trust

# WILDFLOWER TOOLKIT

[www.derbyshirewildlifetrust.org.uk](http://www.derbyshirewildlifetrust.org.uk)



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# WHY WILDFLOWERS?



In recent years, over 95% of British wildflower meadows have disappeared. A combination of farming methods and neat and tidy gardening has resulted in a severe drop in wildflower meadows and gardens.

Wildflower meadows provide important habitats for wildlife. Insects and pollinators thrive, birds can feed and small animals can find shelter.

Whether it's a flowerpot, flowerbed, wild patch in your lawn, or entire meadow, encouraging and planting wildflowers provides vital resources to support a wide range of insects that couldn't survive otherwise. Wildflowers can flourish just through cutting less/differently. It is also a great way of avoiding or reducing the use of tools such as lawnmowers that are powered by fossil fuels!

However, it's not just meadows. Wildflowers can grow in gardens, towns, woodlands, hedgerows and road verges.



# WHICH WILDFLOWERS?

Is your grassland more rich and abundant in Spring or Summer? Take some time to get to know your land and watch how it changes through the seasons.

Spring and Summer flowering grasslands are best cut at different times of year, most wildflower meadows either flower in summer, July–August and/or Spring, February–May. To enjoy a longer flowering season, plant spring flowering or summer flowering seeds in different parts of the garden or in different pots. In addition, you can plant an annual or perennial mix.





Cornfield annuals such as field poppy, cornflower, corn marigold and corn chamomile can be sown in Spring or Autumn. You can even add some cereals such as wheat, oats or barley for a more traditional look.

Annuals grow and flower in the same year and prefer rich fertile soils, unlike native perennials which prefer a nutrient poor site. If you have a very fertile or nutrient rich plot, sowing and harvesting cornfield annuals or the pretty parasitic flower yellow rattle are some methods to reduce nutrient levels to prepare your land for wildflowers.



# TOP TIPS FOR CHOOSING WILDFLOWERS

1. Choose an organic seed mix
2. Choose seeds native to the local area
3. Choose a mixture of perennials and annuals
4. Choose a seed mix to suit your soil type
5. Use a recommended supplier such as Emorsgate, Landlife or Naturescape
6. Wildflowers are available in plug form and in ready-planted turf rolls, which can make establishing the plants even easier
7. Sow a mix of wild grass and wild flower seed. Choose fine-leaved grasses that won't out-compete the flowers: Red fescue, Crested dog's tail, Common bent, Meadow grass, Meadow foxtail, Quaking grass, Sweet vernal grass, Yellow oat grass.



# WHICH WILDFLOWERS?



## Spring

### Flowering Meadows

Germander speedwell

Cuckooflower

Ribwort plantain

Yellow rattle

Ragged robin

Bugle

Meadow buttercup

Black medick

Lesser trefoil

Common sorrel

Salad burnet

Cowslip

## Summer

### Flowering Meadows

Meadowsweet

Yellow rattle

Common knapweed

Oxeye daisy

Lady's bedstraw

Tufted vetch

Common birds-foot trefoil

Selfheal

Meadow vetchling

Yarrow

Wild carrot

Rough hawkbit



# WHAT TYPE OF SOIL DO YOU HAVE?



Soil is made of three main components – clay, sand and silt. An equal mixture of all three is called a loam.

If your soil is hard when dry and sticky when wet it is probably clay, or has a high clay content.

If your soil is light, water drains through it easily and it is easy to dig then it probably has a higher sand content, making it a sandy or loamy sand soil.

A simple way to determine the texture of your soil is by using the ribboning technique: take a small handful of soil and wet it. Knead it with your hands and roll it into a ball. If you can't, you have a sand or very sandy soil.

Feel the ball with your fingers – if it feels gritty you have a sandy soil; if it feels silky you have a silty soil; if it feels sticky you have a clay.

Roll the soil into a ball again and press it between your thumb and finger to make a hanging 'ribbon' of soil. If you can make a short ribbon your soil is a loam. If you can make a long ribbon your soil is clay. A longer ribbon indicates a higher clay content.





Field scabious  
(*Knautia arvensis*)



Butterfly-bush  
(*Buddleja davidii*)

You can also test your soil pH yourself using a DIY kit widely available at garden centres. These kits are relatively cheap and easy to use and give a good indication of soil pH.

The mix of plants you have can also help you identify your soil type. Some of the most attractive flowering plants, such as betony, devil's-bit scabious and wild strawberry, love acid soil.

Honeysuckle, spindle and mullein will all love alkaline conditions.

Soil Condition	Summer Flowering Meadows
Very acidic soil - pH5 or lower	Acid seed mix
Alkali/calcareous soil - pH8 or higher	Alkali/chalky limestone (calcareous) seed mix
Low light	Shady/hedgerow/woodland seed mix
Very wet	Wetland/wet meadow seed mix
Loamy soil	General purpose seed mix
Clay soil	Clay seed mix
Sandy/silty soil	Sandy seed mix



# HOW TO GROW A WILD PATCH OR MINI MEADOW

## OPTION 1.

### LET YOUR GRASS GROW LONG AND GROW DON'T MOW

Long grass, peppered with flowers, is one of the rarest habitats in our well-tended gardens, yet it is incredibly beneficial for wildlife.

Patches of long grass encourage different plant species to grow, help insects to thrive, create feeding opportunities for birds, and shelter small mammals.

So simply let nature move in! Set aside some lawn, leaving it to grow, and wait to see what arrives.

The less pristine the lawn, the more promising it is for wildlife. If you want to you can just raise the cutters on your mower to make some paths (it'll look more cared for) and leave the rest of the mowing until the end of August after plants have flowered.

## OPTION 2.

### START FROM SCRATCH



You can create a wildflower area from scratch on bare ground. Pick a poor patch of ground that hasn't been cultivated recently, as wildflower meadows establish best on unproductive soil. It's worth checking what sort of soil you have and its pH before you choose which seeds to sow; wildflower seed merchants supply mixes suitable for various soil types and situations.

If your soil fertility is too high for perennial wildflowers to flourish, consider sowing a cornfield annual mix that includes plants like cornflower, corn poppy, corn marigold and corncockle, with some barley and wheat seed to add an authentic touch! Harvest and remove these at the end of the season. You could use the cuttings as green hay, for composting, for arrangements or arts and crafts.



## TO CREATE YOUR PATCH FROM SCRATCH...

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- 1.** Control weeds by digging or rotovating, burying or inverting any vegetation to a depth of 15-20 cm (6-8 in). This also brings less fertile soil to the surface.
- 2.** Firm and rake the surface to make a seedbed.
- 3.** Don't be tempted to add manure or fertiliser as this will encourage excessive vigour in the grasses, which then swamp the wildflowers. **This is the most important principle in establishing a wildflower meadow.**
- 4.** It's fine to sow in spring or autumn, but sowing in autumn gives seed time to settle in over winter, and is beneficial for frost-triggered germination of some seeds like yellow rattle. Even large areas can be sown by hand quite easily.
- 5.** Ensure that the seed is scattered evenly by sowing half lengthways and the remaining half widthways across the plot. Mixing the seed with silver sand makes the process easier. Rake in lightly and water thoroughly.



# MAINTAINING YOUR WILD PATCH

- During the first year, it is essential to get the mowing regime right. Cut to 5-7 cm (2-2.5 in) whenever the height reaches 10-20 cm (4-8 in) until you start to see flowers growing amongst the grass. The number of mows required can range from one to four.
- Control assertive weeds like thistles, nettles and docks by hand-weeding or spot-treating with a wildlife-friendly organic herbicide. You can limit the chemicals and carbon footprints of your herbicides by making your own using natural solutions of household items like boiling water, salt and vinegar.
- After this, a couple of cuts a year should be enough: once in late July/early August and then again in early autumn. After mowing, always leave the clippings for a couple of days to drop any seed, then rake up and remove to keep soil fertility down.
- Be careful when mowing (or consider strimming or scything instead) – small mammals, amphibians and reptiles may be hiding in the grass. Some birds nest in larger meadows, so don't mow until after the beginning of August.
- Create wavy and scalloped edges, paths and a variety of sward heights when mowing or cutting. This creates structural diversity and micro-habitats that are great for encouraging floral diversity and provide opportunities for wildlife, especially pollinators.

# WILDFLOWER MEADOWS

## PREPARING THE SOIL

As well as choosing the correct plants for your habitat, good ground preparation is the key to success. Perennial wildflowers require a soil low in nutrients. Highly fertile soils are better suited to cornfield annuals.

Prepare the soil on a dry day.

For most areas, you will need to reduce soil fertility by removing the top soil. This will also help to get rid of unwanted grasses and weed seeds. If the soil is poor already, remove existing vegetation by hand. Scratch the bare soil with a rake, but don't rotavate it, as this can bring unwanted weed seeds to the surface.

## SOWING THE SEED

Sow a wildflower and grass seed mix using 5g/m<sup>2</sup>, with a ratio of 1 part wildflower:4 parts grass/seed.

Once the soil has been prepared as above, you are ready to sow your seed. Mix the seed with a little sand so you can see where you have sown it and scatter it on the ground. This can be done in autumn or spring.

Once the seeds have been sown, roll the soil or walk over it to ensure the seed is in good contact with the soil. Water lightly. If it is a small area, place twiggy sticks over the bare soil to keep cats and birds off whilst the seeds germinate.



## MANAGEMENT IN THE FIRST YEAR

To help the flowers establish well, the meadow will need to be cut during the summer. The grass should be kept at 50mm and the cuttings removed.

Unwanted weed growth like docks should be removed too. A perennial meadow will not usually flower in its first year.

## MANAGING ESTABLISHED MEADOWS

The mowing regime for spring and summer meadows is different. A spring meadow is cut from late June to autumn. A summer meadow is often cut to 50-100mm height in March, then left uncut until late summer/early autumn. The grass should never be cut too short. A minimum height of 50mm is recommended. All cuttings must be removed to prevent nutrients building up in the soil. These can be composted.



Cornfield annuals mix



Cowslip  
(*Primula veris*)



# CORNFIELD ANNUALS

Annuals, often known as 'cornfield annuals,' can be sown in spring or autumn, although spring sowings often give a more colourful and varied display. Unlike most wildflowers, cornfield annuals flourish on fertile soil.

Grass and weeds must be removed before the seed is sown. Seeds germinate better after some ground disturbance, so rotavating or raking the site after the cut will help.

After flowering and the seeds have set (Aug/Sept) the area can be cut to 50mm. The site will need to be deeply dug over or rotavated each spring to promote seed germination. Cuttings don't need to be removed on cornfield meadows either!

Additional seed can be added in the first three years to build up the seed bank in the soil. Seed should be sown at 5g/m<sup>2</sup>. Roll or tread soil after the seeds have been sown. and water lightly.

## WHAT TYPES OF SEED?

**CORN POPPY**

**OX-EYE DAISY**

**CORNFLOWER**

**CORN COCKLE**

**CORN  
MARIGOLD**



Evening primrose  
(*Oenothera biennis*)

## MONITORING YOUR SITE



Field Scabious,  
*Knautia arvensis*

Record the area of the habitat you have created and monitor its success over time.

Try to retain a record, and photo diary, of species already present and species in the mixes or planting scheme.

In future years you will be able to see which species have arrived naturally and how successful your planting has been.

Try counting how many different plants you can find in your meadow.

Make sure you let us know what you have grown and what wildlife you have attracted so that it can be recorded.



SCAN ME



Germander speedwell  
(*Veronica chamaedrys*)



Ragwort  
(*Senecio jacobaea*)

# COST



You can create a wildflower meadow just by letting an area grow freely and investing some of your time in it.

Small wildflower meadows, in areas such as gardens can be relatively cheap to establish. The cost of seed to cover 50 square metres ranges from £20-£30. Preparation and maintenance can usually be done with regular garden tools, but you could hire specialist equipment if required.

Choosing to invest more could enhance the area further. Creating or restoring a larger meadow can cost from £800-£3000 per hectare. These costs include making and maintaining meadow.



Knapweed  
(*Centaurea*)

Butterfly-bush  
(*Buddleja davidii*)

Ragged robin  
(*Lychnis flos-cuculi*)

# OTHER THINGS TO CONSIDER

## WILDLIFE HOUSING

Don't forget to include wildlife housing such as bird, bat and hedgehog boxes, bee hotels, log piles, buried log piles/hibernacula and any specialist provisions for wildlife you are aware of nearby e.g. otter holts, barn owl boxes. Always follow installation instructions and guidance to provide the best benefits.



## POND

Consider making a wildlife pond or bog garden to add even more variety and wildlife opportunities.

## HABITAT PILES

Find a wildlife friendly use for the cuttings from your wild patch or meadow, they could be used for composting, to create habitat piles nearby, or for spreading as green hay.



## VERGES

If you have a nearby verge that could be a wildflower grassland, see if your local community are interested in forming a volunteer group. Read our Wilder Communities Toolkit for more details and support.

**PARDON THE WEEDS  
WE'RE FEEDING THE BEES**





**SMALL LOCAL  
ACTIONS  
BIG GLOBAL  
IMPACT**

**#GROW  
DON'TMOW**

**#GO  
POTTY**  
FOR WILDLIFE



Department  
for Environment  
Food & Rural Affairs

The  
National Lottery  
Heritage Fund



Environment  
Agency



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