

Illustrated guide to rare plants on arable land

Some of the rarest plants in England are found on arable and mixed farms. Many arable plants and their communities are under threat of extinction due to intensive winter cropping and the use of fertilisers and residual herbicides. The chances of rare plants surviving in our arable fields can be increased by changing the timing of cultivations and cropping and by avoiding the use of broad spectrum herbicides.

Arable plant species

Many species of arable plants are rare, declining or of conservation concern. These include grasses and mosses as well as wild flowers. Traditional arable plant communities as well as individual species are under threat. Listed below are just a few of the flower species that can be found in arable fields:

- Cornflower
- Pheasant's eye
- Corn buttercup
- Venus's-looking-glass
- Night-flowering catchfly
- Prickly poppy
- -Red Hemp-nettle
- -Weasel's-snout
- -Blue Pimpernel
- -Shepherd's-needle

For further information on threaten plant species and locally important indicator species see tables 14 and 15 in the third edition of the Farm Environment Plan Manual.

Finding rare arable plants

If conservation management is not in place rare arable plants can be very difficult to spot because they are restricted to field edges, corners and gateways which have missed herbicide applications.



Cornflower

Uncommon arable plants such as small toadflax, dwarf spurge, round and sharp-leaved fluellen are indicators that one or more of the rare plants may also be present.

Arable plant seeds can lie dormant for many years and this helps them respond successfully when conservation management practices are adopted.

Rare arable plants may suddenly appear in fallow fields or in the first year or two of establishing your grass margins.

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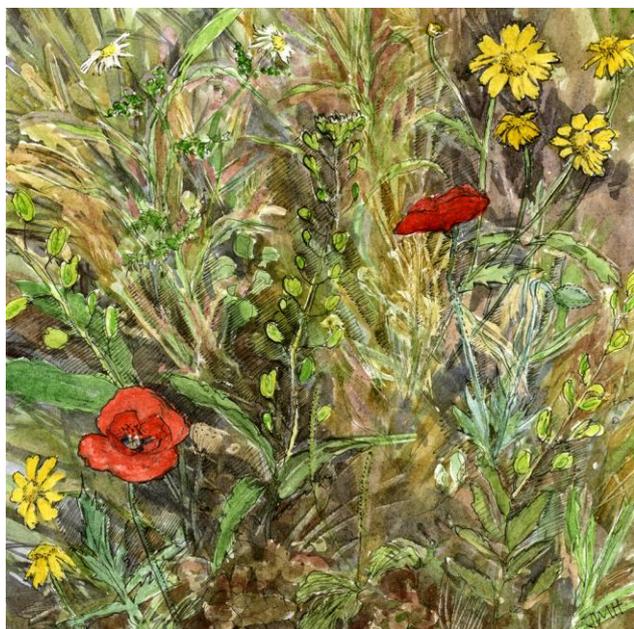
Look out for them in the spring before the margins are topped.

If you find any interesting arable plants in one of your margins please consult your Natural England adviser before you start cutting that margin.

You may be able to check past records for sites of rare and uncommon plants. Contact Plantlife, the National Biodiversity Network or your local records centre. Further details are available at the end of this note.



Example of a field margin managed for arable plants



Traditional arable plant communities are under threat

Managing for arable plants

To survive and thrive arable plants need conditions that allow them to flower, fruit and return their seed to the soil. Different species germinate, flower and set seed at different times of year.

Field guides can provide information about the specific requirements of the species on your farm. In general arable flowers benefit from:

- Open cultivated margins or in-field areas where there is limited competition from aggressive weeds.
- Cereal stubbles left uncultivated over winter.
- Cropped headlands that are left unsprayed and unfertilised. Ideally these should also be left un-harvested.

For species with seeds that can lie dormant it is not always necessary to manage for them every year. However, you should aim to provide conservation management for target species at least 1 year in 3.

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In years when you are not managing for target species try to limit your use of broad-spectrum, residual and total herbicides.

Aggressive weeds make it difficult to manage for arable plants. In particular, don't try to manage for arable plants on sites infested with herbicide-resistant blackgrass.

On areas known to support arable plant communities avoid:

- Planting grass margins.
- Growing competitive crops.
- Allowing spray drift from adjacent land.
- Cultivating the land less than four weeks after harvest.
- Applying high levels of fertilisers and manures.



Tussocky grass margins are not suitable for arable flowers

Further information

Natural England publications are available to download from the Natural England website at www.naturalengland.org.uk. In particular see:

- NE264 - *Higher Level Stewardship: Farm Environment Plan (FEP) Manual*

For enquiries please contact the Natural England Helpline on 0300 060 0863 or email enquiries@naturalengland.org.uk

This guidance has been developed to support Environmental Stewardship agreements. It does not replace an agreement and you must continue to follow the prescriptions and specifications. The outcomes shown may not be appropriate or suitable for all sites. Please consult scheme handbooks or your Natural England adviser for further information.

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Further resources

Search for species using the National biodiversity Network Gateway at data.nbn.org.uk/.

Plantlife have the following guides available to download at www.arableplants.org.uk

- *Arable Plants – a management guide*
- *Threatened Arable Plants - identification Guide*

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