

Corn Buttercup

Ranunculus arvensis



Corn Buttercup is a branched plant up to 50 cm. The leaves are stalked and deeply divided with 3-5 lobes. The leaves are more elongated and linear than the leaves of common buttercups. The flowers are typical of buttercups, but are smaller, up to 12 mm in diameter, and pale lemon-yellow in colour. The large seeds are distinctive being up to 8 mm in length, oval and covered in spines that are up to 2 mm in length. Each flower produces up to eight seeds.

The prickly seeds distinguish this species from most other buttercups. Corn Buttercup seeds are prickly all over including the 'spine' of the seed, unlike Rough-fruited Buttercup which has a spine-free edge. Small-flowered Buttercup seeds have small, relatively inconspicuous hooked spines on the edge of the seeds and the seeds are usually much smaller, between 2.5-3 mm long. The other common buttercup species do not have spines on their seeds.

Lifecycle

Corn Buttercup is an annual herb, flowering from May to mid-June. Its seeds mature by the end of June, and germinate during autumn and winter. The seed dormancy for Corn Buttercup is thought to be short-lived, at less than five years, but could last longer when seeds are deeply buried.

Habitat

An arable species, typically found in winter-sown crops. It has been known to occur on road verges alongside arable fields and on disturbed soils in grasslands that were once arable. Corn Buttercup is most often found on heavy clay soils. This species can occur with a number of other uncommon arable plants including Shepherd's-needle, Spreading Hedge-parsley, Broad-leaved Spurge and Broad-fruited Cornsalad. It may also be found growing within a crop well away from the field margin.

GB status and rarity

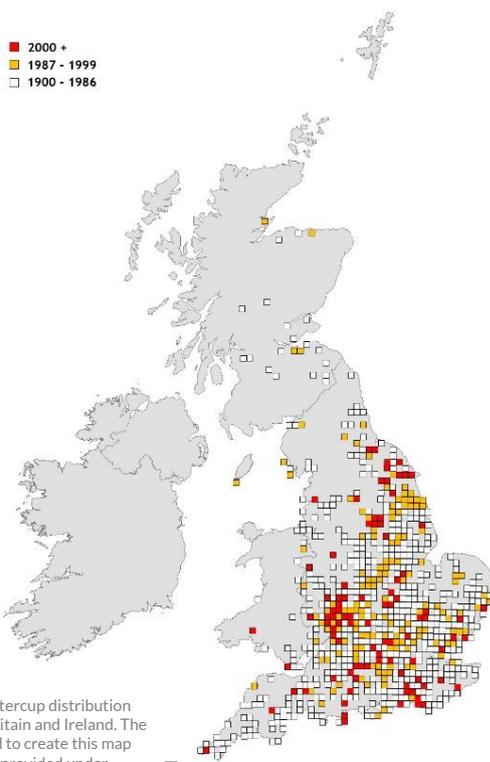
Critically Endangered

Protection under the law

This plant is included as a species "of principal importance for the purpose of conserving biodiversity" under Section 41 (England) of the Natural Environment and Rural Communities Act 2006, and listed as a priority species under Section 7 of the Environment (Wales) Act 2016.

Survey method

Individual plants should be counted, but in larger populations an estimate should be made.



Corn Buttercup distribution across Britain and Ireland. The data used to create this map has been provided under license from the Botanical Society of Britain and Ireland (BSBI) and accessed from the Society's online database.

Distribution

In the UK, this species was formally widespread throughout the south and east of England. The population has declined rapidly during the last 60 years but there remains a stronghold in the south-west Midlands. There are also scattered recent records from Cornwall in the south-west to Newcastle in the north-east and Glamorganshire in the west to Suffolk in the east.

Reasons for decline

The main causes of decline are a direct result of the intensification of arable farming. Key factors include improved seed cleaning of arable crops, the widespread use of broad-spectrum herbicides and the density of modern crops as Corn Buttercup competes poorly with a fertilised crop. Fertilised crops tiller vigorously reducing light availability to this lower growing arable plant species.

Habitat management

Ideal management on arable land involves annual cultivation in autumn (between October and early December), without subsequent disturbance until Corn Buttercup plants have flowered and set seed. Corn Buttercup will grow within a crop, such as autumn sown cereal or within an uncropped cultivated area or plot.

If Corn Buttercup grows alongside spring-germinating rare arable plants, periodic spring cultivation will not be overly damaging and may even help with the control of pernicious weeds such as Black Grass. As the seeds of Corn Buttercup do not tend to last very long within the soil it is important that regular cultivation in autumn is carried out.

It is susceptible to broad-spectrum herbicides and their use will reduce population sizes. However, if required, treatment of problematic weed species could be undertaken through targeted herbicide use, particularly autumn germinating grasses using graminicides.

Fertiliser can encourage problem weeds, and is not usually applied to uncropped areas for arable plants, and may be restricted on cereal headlands and wildlife cover crops.



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