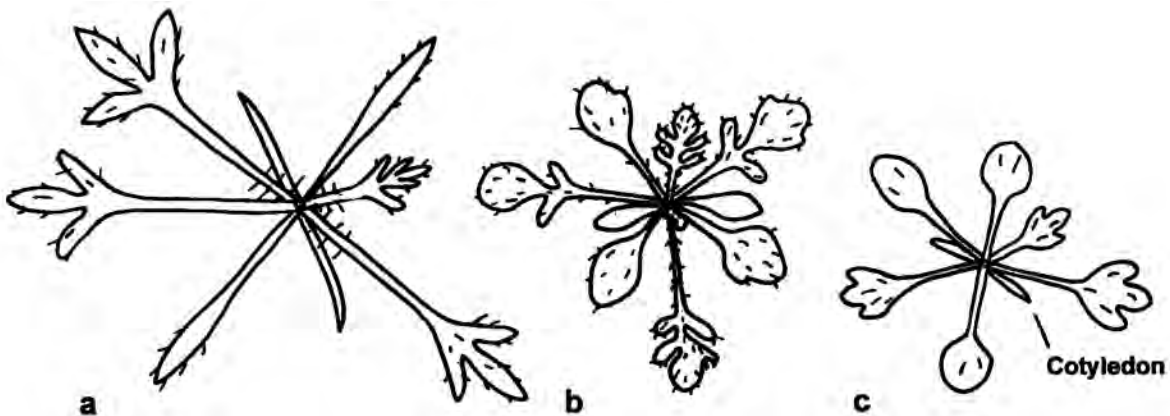


PAPAVER

1. *Papaver*, key to non-flowering plants

- 1 Plant glabrous; leaves lobed but not deeply divided, glaucous and waxy *P. somniferum*
1 Plant hairy 2
- 2 Cotyledons long and narrow, more than 8 times as long as wide (Fig. a); leaves pinnatisect, leaf-segments straight-sided, tapering to a bristle-tipped point, normally dark-green
P. argemone & *P. hybridum* (these species cannot be distinguished before flowering)
- 2 Cotyledons between three and eight times as long as wide (Figs. b, c); leaves very variable, pinnatisect to pinnate, segments curved-sided, grey-green 3
- 3 Stem with patent hairs, sometimes also with appressed hairs; leaves frequently with a large terminal segment (Fig. b) *P. rhoeas*
3 Stem with closely appressed hairs only 4
- 4 Latex white to cream (tear leaf or stem) *P. dubium* subsp. *dubium*
4 Latex yellow (can be white for a few records); a generally bulkier plant, but other vegetative characteristics are not sufficiently dependable to distinguish this from subsp. *dubium* (see also below) *P. dubium* subsp. *lecoqii*



Leaf shapes. (a) *P. argemone*, (b) *P. rhoeas*, (c) *P. dubium* (del. M. Reed).

Habitats and status of *Papaver* species

P. argemone L. Almost exclusively in arable land on both chalk and sands, but occasionally in quarries and other disturbed sites. Uncommon, most frequent in the east and south-east, but still as far north as the Firth of Forth (*Scarce Plants*).

Plant Crib

P. hybridum L. Almost exclusively in arable land on chalk. Very rarely in other disturbed sites and on other calcareous soils. Rare, but still quite frequent in central S England (*Scarce Plants*).

P. somniferum L. A relic of former cultivation. An occasional weed in arable land especially in SE England. Also a garden escape.

P. rhoeas L. Mainly in arable land, but also in other disturbed sites and on waste ground. Still widespread and locally common, especially on chalk and sands and where crop rotations have recently included oil-seed rape. Seeds are thought to have a very long persistence in the soil.

P. dubium L. subsp. *dubium*. Almost exclusively in arable land but occasionally in other disturbed sites. Widespread throughout Britain, more common further north than *P. rhoeas*.

P. dubium subsp. *lecoqii* (Lamotte) Syme. In arable land, but also common in other disturbed places (see below). Distribution incompletely known as a result of similarity to subsp. *dubium*.

Author P. J. Wilson, December 1997.

2. *Papaver dubium* subspecies

The two subspecies of *Papaver dubium* L. are very similar morphologically, but differ consistently in some characters. They also appear to be ecologically well separated. The following notes based on studies in the Home Counties may help in their recognition.

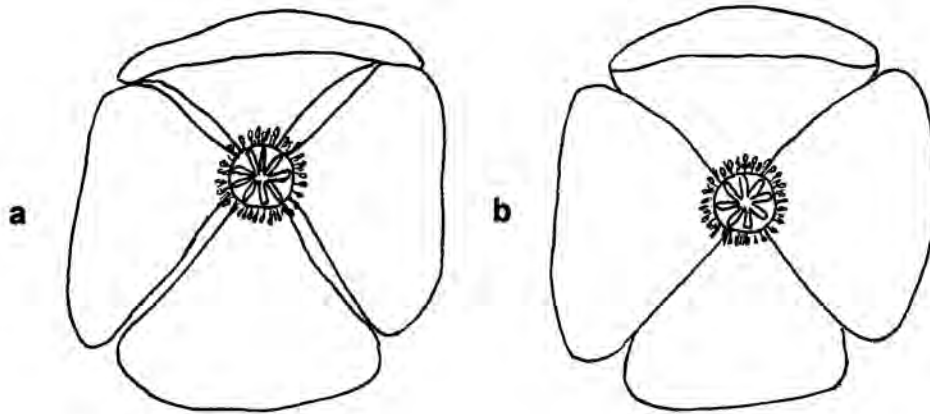
Subsp. *dubium* is the classic smooth long-headed poppy, most often of disturbed and waste ground. It is a plant of somewhat acidic to neutral, freely draining, often gravelly ground. It is not so often encountered as an arable weed, being more a plant of roadsides, building sites, etc., although this may have more to do with the distribution of land uses on its characteristic soils. It will also turn up in atypical habitats where soil is dumped.

Subsp. *lecoqii* has been found to be very clearly associated with highly calcareous soils, usually somewhat clayey, such as chalky boulder clay, or the damper ground on chalk itself (e.g. on Chalk Marl). It is almost never found on acidic soils, and is not especially associated with gravels. It is also a roadside plant, but, contrary to published literature, is quite often found as an arable weed and is widespread and quite common on the appropriate soil types in SE England, at least. It is also often the first of the poppies to flower, some two or three weeks earlier than subsp. *dubium* or *P. rhoeas*.

The most effective way of distinguishing the two plants is to test a stem for its sap colour. In subsp. *lecoqii* this is always bright yellow immediately or after a few seconds on exposure to air, unless the plant has dried up. This applies equally to young plants and those long-gone to seed, and so they can be distinguished safely in the field without the flowers.

The following comparative Table gives other pointers to the two subspecies, in descending order of usefulness. Other published differences, such as shape of the capsule and seed colour do not seem to be as useful. Both plants are upright and wiry in growth habit, and young foliage without stems (and therefore accessible sap) is all but indistinguishable, except by suggestion from habitat.

Plant Crib



Papaver dubium flowers viewed from above (a) subsp. *lecoqii*, (b) subsp. *dubium*.

	Subsp. <i>lecoqii</i> (Lamotte) Syme	Subsp. <i>dubium</i>
Latex	Yellow or turning yellow when fresh, red when dry	White, creamy or milky/watery when fresh, brown to black when dry
Petals	Almost always clearly separated from each other towards the base (but may slightly overlap towards the apex) (Fig. a)	Rounder than in <i>lecoqii</i> , therefore overlapping towards the base, and separating only towards the apex (Fig. b)
Flower colour	Usually a clear, pale, almost orange-red, distinctly different from <i>P. rhoeas</i> , and never with black basal blotches	Usually a pale red, but quite often more like <i>P. rhoeas</i> , but again never with black blotches at the base of the petals
Stamens	Usually a pale brownish or yellowish colour, at least when fresh	Often a dark purplish-black colour, but sometimes dark brown
Leaves	Often fairly broad, but very deeply dissected, the ultimate segments tapering to fine, sharp points	Often quite narrow, also deeply dissected, but with the ultimate segments usually more or less parallel-sided until somewhat abruptly acute apex
Foliage colour	Often a glaucous or bluish green	Sometimes greyish, but more usually a pale green

Reference Kadereit, J. W. (1988). *Notes Royal Botanic Garden Edinburgh* **45**: 225-286.

Author T. J. James, December 1997.