
SAC

organic farming technical summary

# Weed Control in Organic Wheat

OFTS51

Management of weeds in wheat should be designed to tip the balance of competition towards the crop. Do not aim to remove all annual weeds because wheat can cope with a reasonable population of low growing annuals, with benefits for biodiversity and habitat for beneficial insects.

## Within the Rotation

Wheat should be part of a rotation in which opportunities to control weeds should be taken wherever possible:

- Grass breaks of more than 2 years provide a good way of reducing the seed bank of many arable weeds. They can also provide an opportunity for digging out the odd dock or other perennial if at low levels, or by routine cutting deplete their root reserves in high infestations.

- Wide row crops and potato crops also provide good breaks for weed management, and utilise stubble and fallow management wherever possible.

## Before the Wheat Crop

- Sow later to allow early cultivation and final soil harrowing to remove early flush of weed.

## Within the Wheat Crop

In wheat itself, a number of management practices can help you improve the competitiveness of the crop. What that management should be depends on individual circumstances, and in particular what serious weeds you have, such as perennials (for example, docks and thistles), large grass weeds and cleavers:

- Do not sow earlier than mid-October wherever possible, unless you are in a late area. Delaying sowing reduces autumn weed emergence, allowing the crop to get established before the spring weed flush.

- Use best quality seed to improve establishment and reduce weed growth. Sow at about 450 seed per square metre, unless sowing very early in very favourable conditions.

- Use high tillering varieties that can compensate for establishment problems and give good early ground cover (prostrate).

- Sow in narrow rows to increase shading of the ground to reduce annual weed growth; narrow rows also tend to yield more. Cross drilling reduces weed growth further.

- If you have perennial, tall grass or other difficult weeds, sow in wide rows (23-30cm) to allow the passage of a hoe.

- If sowing in narrow rows, preferably use varieties with rapid spring growth, maintaining a prostrate or planophile shading habit. If you have to select between upright or erectophile varieties, then select types that are tall with large leaves.

- If sowing in wide rows, use varieties that maintain a planophile habit, or if erect, use very tall varieties with large leaves.

## Harrowing and Hoeing

- If you do sow early and weeds emerge in the autumn, use a set of light harrows in the autumn or early spring. Otherwise delay harrowing until spring when most of the weeds emerge.

- Do not harrow for the sake of it; you can lose more yield than you gain. Wheat can stand low populations of weeds. A single spring harrow, however, may have benefits in aiding early nitrogen release from the soil.

- Repeat hoeing will assist long term perennial weed management. But work rates are slower and an accurate guidance system is essential.

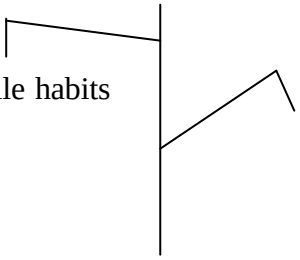
## Planophiles and Erectophiles

- Planophile means that the leaves are held out from the stem at 30-60$^{O}$; they may droop at the tips.

- Erectophile means that the leaves grow upward from the stem at generally less than 30$^{O}$.

Wheat varieties for organic farming are described in greater detail in OFTS52.

Prostrate early cover habit



Planophile habits

Erectophile habits

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