

## Variety differences in weed suppression

A good crop competition is essential to achieve the best pressure on weeds. Weed suppression abilities should be a parameter in the choice of cereal varieties, especially in organic fields

Readiness for use: 

Efficacy: 

### How it works

Variety characteristics have shown to be important for weed suppression in cereals. It is an advantage to get information about the early crop development of varieties in order to choose the varieties with the best weed suppression.

- Early crop coverage is a crucial characteristic in terms of weed suppression
- Studies have shown that cereal varieties differ in their ability to suppress weeds
- Danish studies have shown that spring barley varieties differ in their ability to make a quick soil coverage, and the varieties with the best soil coverage at BBCH st. 14-15 had the best effect on weed suppression. Similar results are shown in winter cereals too.
- Effects of weed suppressive characteristics are shown in the Danish national variety trial program in organic spring barley. Data for plant coverage at BBCH st. 14-15, weed coverage at earing, plus straw length at harvest are shown along with other variety traits and yield ([SortInfo](#))
- Canopy height also plays a role in weed suppression, with high cultivars having more weed suppression than low varieties. But in cases where weeds aren't present or at a very low level, a low variety will often have a higher yield potential.



Photo 1. Two different spring barley varieties in the same field, one with good weed suppression, Halfdan, breed for organic farming (right) and one with poor weed suppression (left).

Photo: Tove Mariegaard Pedersen, [www.icoel.dk](http://www.icoel.dk).

#### Read more:

Rasmussen J, Jensen SM & Pedersen TM. (2021). A new approach to quantify weed suppression, crop tolerance and weed-free yield in cereal variety trials without weed-free plots. [Weed Research, 61, 406-419.](#)

Hansen PK, Kristensen K & Willas J (2008) A weed suppressive index for spring barley (*hordeum vulgare*) varieties. [Weed Research, 48, 225-236.](#)

Christensen S (1994) Crop weed competition and herbicide performance in cereal varieties and species. [Weed Research 34, 29-36.](#)