

Many people use the term “Weed Control” with a heavy emphasis on “control” and do not consider the “weed” portion. When growing crops that have a variety of robust herbicide options the consideration of weeds in the field only comes up when poor weed control occurs. Understanding ecology of individual species is particularly important when herbicides choices are limited.

Some of the characteristics associated with difficult to control weeds include seed size, period of germination, growth rate, and ability to capture sunlight. Generally, weeds with larger seeds can germinate from deeper in the soil allowing them to be less susceptible to soil-applied herbicides or the larger seeds allow the weeds to emerge through plant residue. All weeds have an emergence period when most plants emerge, and this can be as short as a few weeks or throughout the growing season. Those species with a prolonged germination period are the most challenging to control, this includes Palmer amaranth, smooth pigweed, common cocklebur, and jimsonweed.

Weeds have a peak growth rate based on an optimum temperature for that species, meaning some species grow better in warmer temperatures than others. Thus, some species maybe more problematic with early planted sweet corn while others are more troublesome with a later plantings. Rapid, early growth rate also leads to higher probability that a weed is likely to capture sunlight and shade out sweet corn and other weeds.

These characteristics are hard to manipulate in your favor. But being aware of the characteristics of the most troublesome weeds is critical for planning effective weed management programs. This information can be difficult to find. A free publication from Sustainable Agriculture Research and Education (SARE) entitled “Manage Weeds on Your Farm” is an excellent resource for this type of information (<https://www.sare.org/resources/manage-weeds-on-your-farm/>). The relative effectiveness of various integrated weed management programs can be challenging and a useful resource from Get Rid of Weeds (<https://growiwm.org/>) is a Weed Management Planner (<https://growiwm.org/the-weed-management-planner/>). These two free on-line resources complement each other and are very effective for developing an effective integrated approach to weed management.