Weed Emergence Sequences

Knowledge to guide scouting and control

Knowing when weeds begin to emerge can improve weed management by helping to determine when to scout fields and implement control tactics. Although the initial emergence date for weeds varies from year to year, the emergence sequence of different weeds is fairly constant. Each group below includes weeds that begin to emerge at similar dates. Most weeds emerge over a prolonged time period, so weeds from earlier groups may still be emerging when later groups begin to emerge. The GDD (base 48) information is an estimate of heat units required to reach 10% emergence. However, weed emergence is influenced by several other factors than air temperature, including cloud cover, soil type and moisture, and crop residue.

For some species, the majority of emergence occurs in a short time period (2-3 weeks), whereas other species may emerge over a prolonged period (8-10 weeks).

Short | Medium | Long

The duration of emergence for species is indicated by the color background where its name appears.

Early

Emergence Date

Late

Group 0

Emergence occurs in fall or early spring.

Winter annuals normally complete emergence prior to planting of corn or soybeans.
Examples: Horseweed (marestail), white cockle, field pennycress, shepherd's purse.

Group 1

Emergence begins several weeks prior to corn planting.

GDD < 150


Giant ragweed


Lambsquarters


Penn. smartweed


Common sunflower

Group 2

Emergence begins soon before or at corn planting.

GDD = 150-300


Woolly cupgrass


Common ragweed


Velvetleaf


Giant foxtail

Group 3

Emergence begins at end of corn planting season.

GDD = 250-400


Yellow foxtail


Black nightshade


Common cocklebur


Wild proso millet

Group 4

Emergence begins after corn emergence.

GDD > 350


Large crabgrass


Fall panicum


Waterhemp


Morningglory sp.

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