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Weed Emergence Sequences: Knowledge to guide scouting and control

Iowa State University Extension and Outreach

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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).

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

Short Medium Long

Early

Group 0
Emergence occurs in fall or early spring.
Winter annuals normally complete emergence prior to planting of corn or soybeans.
Examples: Horseweed (mare's tail), white cockle, field pennycress, shepherd's purse.

Group 1
Emergence begins several weeks prior to corn planting.
GDD < 150






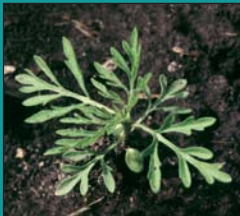


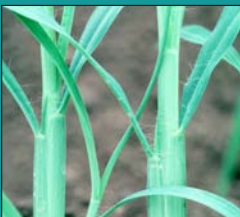






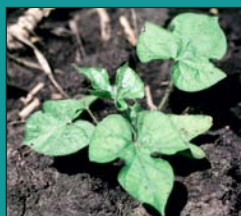
Group 2
Emergence begins soon before or at corn planting.
GDD = 150-300

Group 3
Emergence begins at end of corn planting season.
GDD = 250-400

Group 4
Emergence begins after corn emergence.
GDD > 350

Late

Emergence Date

			
Giant ragweed	Lambsquarters	Penn. smartweed	Common sunflower
			
Woolly cupgrass	Common ragweed	Velvetleaf	Giant foxtail
			
Yellow foxtail	Black nightshade	Common cocklebur	Wild proso millet
			
Large crabgrass	Fall panicum	Waterhemp	Morningglory sp.

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