Distinguishing between pigweed species can be a difficult task. Both waterhemp and Palmer amaranth are opportunistic weeds in soybeans that have developed resistance to multiple herbicide modes of action. Waterhemp and Palmer amaranth are growing in their geographic footprint, making it increasingly important to know how to identify them accurately. Palmer amaranth is more aggressive than waterhemp, and can set a taproot up to 5 feet long. If not controlled early, Palmer amaranth can grow up to 6 ½ feet tall with a very thick, hearty stem, causing substantial yield reductions and difficulties with harvest.

The Palmer amaranth leaf is much wider (horizontal arrows) and has a longer petiole (vertical arrows) than waterhemp. Palmer amaranth can be differentiated from waterhemp by its long petioles, causing the egg-shaped leaf blades to extend away from the stem.

Recommended use rates for effective residual control

**Sonic®** 4-6 oz/A

The most effective control of waterhemp and Palmer amaranth requires the use of a residual herbicide:

- The use of preemergent herbicides like Sonic® is extremely important to eliminate early-season weed competition and improve control with postemergence herbicides.
- Utilize higher herbicide rates to maximize your in-crop residual weed control.
- Rotate crops annually to allow use of a wider range of herbicides with varying modes of action.
- Pay close attention to continuous soybean acres where these two weeds tend to be most prevalent.
- Scout before and after any herbicide application to evaluate herbicide effectiveness and determine if additional treatments are necessary.

Waterhemp (left) Palmer amaranth (right)

The Palmer amaranth leaf is much wider (horizontal arrows) and has a longer petiole (vertical arrows) than waterhemp. Palmer amaranth can be differentiated from waterhemp by its long petioles, causing the egg-shaped leaf blades to extend away from the stem.
WATERHEMP VS. PALMER AMARANTH

Waterhemp characteristics
• Long and slender leaves
• Short petioles, much shorter in length than the leaf blade
• Hairless stem
• Seed heads typically measure only a few inches in length

Palmer amaranth characteristics
• Wide oval or egg-shaped leaves
• Leaves have long petioles or the stalk that connects the leaf blade to the stem
• Petioles are as long or longer than the leaf blade itself causing the leaves to extend away from the stem
• Often has a “C” or “V” shaped mark on the leaves (but may not always be present)
• Hairless stem
• Seed heads are usually over 2 feet in length

For more information please contact your local Dow AgroSciences sales representative.