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Is it Palmer Amaranth?

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Abstract

Numerous weedy species in the pigweed family (Amaranthaceae) are found across Iowa, including waterhemp, redroot pigweed, smooth pigweed, Powell amaranth and others. At this time, Palmer amaranth has not been confirmed in the state, but because of its presence in surrounding states we suspect it may be here, or will appear in the near future.

Keywords

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Is it Palmer Amaranth?

By Bob Hartzler and Mike Owen, Department of Agronomy

Numerous weedy species in the pigweed family (Amaranthaceae) are found across Iowa, including waterhemp, redroot pigweed, smooth pigweed, Powell amaranth and others. At this time, Palmer amaranth has not been confirmed in the state, but because of its presence in surrounding states we suspect it may be here, or will appear in the near future ([see April 24 ICM article](#)).

Identifying infestations of Palmer amaranth when they first get started is the key to preventing its spread in Iowa. It is difficult to differentiate vegetative plants of waterhemp and Palmer amaranth. Both have glabrous (hairless) stems and both species have variable leaf shapes.



Purdue University recently published an article and video providing information on differentiating Palmer amaranth and waterhemp. They state that Palmer amaranth frequently has a single hair in the notch found at the leaf tip, and that this trait is a reliable way to differentiate the two species. We have examined waterhemp plants and photos of waterhemp, and find that this hair is commonly present on waterhemp in Iowa. Thus, we do not recommend this as a trait for differentiating the two species.

Palmer amaranth frequently (but not always) produces leaves with a petiole much longer than the leaf blade. This probably is one of the most consistent vegetative traits for separating the two species but it also is variable. Plants with inflorescences present are best to identify and confirm the *Amaranthus* species.

We are willing to aid in identifying any plants suspected of being Palmer amaranth. In most cases, digital images will be insufficient to differentiate vegetative Palmer amaranth and waterhemp. Contact us via e-mail or phone to determine how to proceed in confirming the identification of any suspected

Palmer amaranth.

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