Palmer Amaranth: A New Threat

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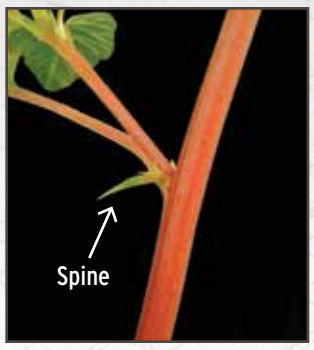
HERBICIDE-RESISTANCE MANAGEMENT

Palmer amaranth is native to the southwest US, but recently has moved into the Soybean Belt. Compared to native pigweeds (Amaranthus species), Palmer amaranth poses unique management challenges. Therefore, preventing its spread into new areas is important. This document will help you differentiate Palmer amaranth from other pigweed species.

Both waterhemp and Palmer amaranth are highly variable in appearance. While there are differences in vegetative characteristics, these traits are not completely reliable due to the diversity within both species. Because of this, it is important to become familiar with the floral characteristics of both species.

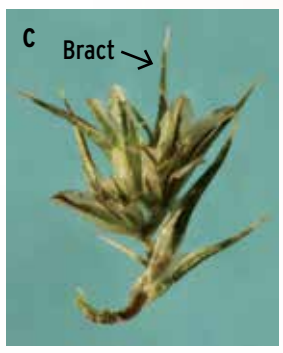
SPINY AMARANTH

Plants have long (up to 1/2"), sharp spines at nodes on the stem. These spines are sometimes mistaken for the sharp bracts on female Palmer amaranth infloresences.



DOES THE PIGWEED HAVE A HAIRY STEM?

YES	NO
	
Redroot pigweed Smooth pigweed Powell amaranth	Waterhemp Palmer amaranth Spiny amaranth

	PALMER AMARANTH	WATERHEMP
VEGETATIVE TRAITS	• Rounded leaves • Some leaves may have petioles longer than leaf blade • Dense cluster of leaves at top of canopy 	• Elongated leaves • Open canopy 
REPRODUCTIVE TRAITS *Both species are dioecious, having separate male and female plants. The inflorescences of both species are highly variable.*	Palmer amaranth (A) generally have long terminal branches greater than a half inch in diameter. 	Most waterhemp (B) have slender branches less than six inches in length; however, some plants produce long branches more than a half inch in diameter. 
	Female Palmer amaranth flowers (C) have a long (up to 1/2") bract that extends beyond the five tepals and seed capsule. The bracts become sharp at maturity, making female plants painful to handle. 	Female waterhemp flowers (D) have a small bract that does not extend beyond the single tepal or seed capsule. Male plants have a short bract with five tepals. 

For more information and links to additional resources, visit www.TakeActionOnWeeds.com.