

For the latest information, visit www.ag.ndsu.edu/palmeramaranth.

Palmer amaranth	Waterhemp	Redroot pigweed
No hair	No hair	Very short, dense hairs
Petioles longer than leaf	Petioles shorter than leaf	Petioles shorter than leaf
Separate male and female plants	Separate male and female plants	Male and female parts on same plant
Spiny bracts on female plants	No spiny bracts	No spiny bracts
Female head prickly, male head soft	Female and male head soft	Heads are soft
Leaves diamond or oval-shaped	Leaves long, narrow, shiny	Leaves round to oval-shaped



Palmer amaranth plants. (B. Jenks, NDSU)



Palmer amaranth (right), waterhemp (left).
(G. Endres, NDSU)



Female Palmer amaranth with spiny bracts
(B. Jenks, NDSU)



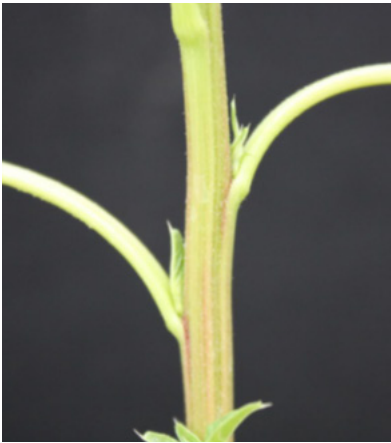
Palmer amaranth petioles are longer than the leaf blade
(B. Jenks, NDSU)



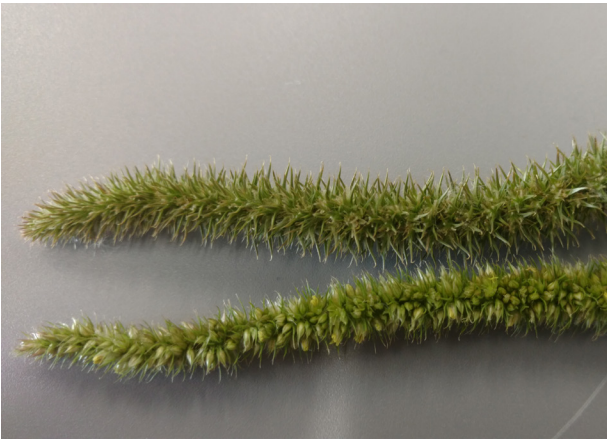
Waterhemp has long, narrow leaves.
(T. Peters, NDSU)



Palmer amaranth. (B. Jenks, NDSU)



Palmer amaranth (left) has no hair, Redroot pigweed (right) has short, dense hair
(C. Sprague, Michigan State)



Palmer amaranth female seed head (top) and male (bottom). Female is prickly, male is soft. (B. Jenks, NDSU)



Waterhemp female seed head on left, male head on right. (T. Peters, NDSU)



Redroot pigweed seed head. (B. Jenks, NDSU)



Palmer with long terminal seed head. (Nick Nelson/Agweek)