The spread of waterhemp and Palmer amaranth across Ohio is making correct identification of *Amaranthus* (pigweed) species more important. This publication provides tools to help with identification. Hybrids between these species can result in ambiguity, so we encourage you to contact OSU weed scientists for assistance if in doubt.

- **Pigweed**
  - Hair (on stem & leaves)
    - Waterhemp
      - Long narrow leaves with short petioles
    - Smooth/redroot pigweed
      - Leaves are ovate to round in shape
  - No hair (on stem & leaves)
    - Palmer Amaranth
      - Petioles as long or longer than leaf
    - Spiny Amaranth
      - Sharp spines at base of petiole

**Spiny amaranth**

Sharp spines at petiole base are ¼ to ½ inch long
Palmer Amaranth
*Amaranthus palmeri*

- Ovate to Diamond Leaves (widest near the base)
- No Hair on Leaves or Stems
- Long Petioles (as long or longer than leaf)
- Spike Seedhead (very rough to the touch on female plants)
Waterhemp
*Amaranthus rudis*

- No Hair on Leaves or Stems
- Male Waterhemp
- Female Waterhemp

- Long lanceolate leaves
- Waxy leaf surface
**Smooth/redroot pigweed**

*Amaranthus hybridus/retroflexus*

Fine hairs on stem especially towards newest growth

Round to oval leaves (widest near the middle)

Rough leaf surface

Redroot Pigweed

Smooth Pigweed

Authors: Bruce Ackley, Mark Loux
Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, sexual orientation, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA.

For Deaf and Hard of Hearing, please contact Ohio State University Extension using your preferred communication (e-mail, relay services, or video relay services). Phone 1-800-750-0750 between 8 a.m. and 5 p.m. EST Monday through Friday. Inform the operator to dial 614-292-6181.