

# The Most Common Amaranthus Species in Tennessee

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Amaranthus weed species, such as Palmer amaranth (*Amaranthus palmeri*) and common waterhemp (*Amaranthus tuberculatus*), pose significant problems in Tennessee agriculture due to their aggressive growth, high seed production and resistance to multiple herbicides. These weeds compete heavily with crops like soybeans, cotton and corn for sunlight, nutrients and water, reducing yields and increasing production costs. Their rapid growth and ability to germinate throughout the growing season make them especially difficult to control. Moreover, the widespread development of resistance to glyphosate and other commonly used herbicides has forced farmers to rely on more expensive and complex weed management strategies, threatening the long-term sustainability of crop production in the region. The following images illustrate the most common Amaranthus species in Tennessee along with their defining characteristics.



## Palmer Amaranth (*Amaranthus palmeri*)

### Identifying Characteristics:

- Petiole is as long as leaf blade or longer
- Dark, v-shaped watermark on leaves (sometimes)
- Stems are smooth
- Small spine at tip of leaf



## Common Waterhemp (*Amaranthus tuberculatus*)

### Identifying Characteristics:

- Longer and more narrow leaves than other *Amaranthus* species
- Petiole is shorter than the leaf blade
- Glossy leaves



### Smooth Pigweed (*Amaranthus hybridus*)

#### Identifying Characteristics:

- Egg shaped to oval leaves
- Petiole is shorter than leaf blade
- Stems are slightly hairy



### Spiny Amaranth (*Amaranthus spinosus*)

#### Identifying Characteristics:

- Spines at the base of each leaf where it meets the stem
- Dark, v-shaped watermark (sometimes)
- Smooth or hairless stems



### Redroot Pigweed (*Amaranthus retroflexus*)

#### Identifying Characteristics:

- Very hairy stems
- Lower stems appear reddish in color
- No spine at tip of leaf



Scan this to be directed to the 2025 Weed Manual

Questions about the control of these species? Refer to the 2025 Weed Manual by following the QR code or contact your county Extension office.



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