



# Noxious Weed Fact Sheet

## Palmer Amaranth

**Common Name:** Palmer amaranth

**Alternate Names:** Palmer pigweed, careless weed

**Scientific Name:** *Amaranthus palmeri*

**Legal Status:** Prohibited- Eradicate

Palmer amaranth was added to the Maryland Noxious Weed Law in 2020. The law prohibits the import and transport of the noxious weed throughout the state and requires infested lands be managed for the eradication of the species.

### What is Palmer amaranth?

Palmer amaranth is a summer annual weed in the pigweed family that has become a major challenge for farmers across the U.S. for much of the last decade. Native to the Sonora Desert of Arizona and Northern Mexico, Palmer amaranth is well adapted to the hot Maryland summers. In Maryland, Palmer amaranth has widespread resistance to Group 9 herbicides (Glyphosate) and Group 2-ALS herbicides.

It was first discovered in Maryland during the mid-twentieth century, but the presence of herbicide resistant Palmer amaranth was not confirmed until 2014. Since then it has spread to most regions of the state including Eastern, Southern, and Western Maryland.

### Appearance

Palmer amaranth leaves are **diamond-shaped**, **lack hairs on the surface**, and sometimes contain a **white or purple watermark**. A single, stubby hair is often found in the notch at the leaf tip. **Leaf petioles of older leaves are as long or longer than leaf blades.**



Palmer amaranth stems are smooth (hairless) and can be green, red, or red green striped in color. Male and female flowers are produced on separate plants. These terminal **flower spikes can be 2-3 ft.** or more in length. Male flowers are soft to the touch while female flowers contain sharp bracts.

**For assistance with weed identification, contact your local Extension office at:**

**<https://extension.umd.edu/locations>**



## Prevention

1. Scout your farm frequently in the early growing season. **Controlling plants while they are <4" will preserve yield potential and save costs.** Plants >8-10" often need sequential herbicides to achieve complete control and prevent seed production.
2. Preventing seeds from entering the farm is also important. **Equipment is the most common method for moving seeds.** Palmer amaranth seeds move readily in and on equipment, particularly combines. When harvesting crops, do not move equipment between infested and non-infested fields.
3. **Clean equipment thoroughly between fields using a leaf blower or compressed air.** Sending one or two bales of clean straw through the combine before entering non-infested fields can also help to dislodge seeds.
4. Cotton meal or hulls used for livestock feed as well as straw, hay or mulch from infested fields can carry Palmer seeds. Palmer amaranth seed can survive the digestive system of most animals and the seeds remain viable in manure.

**For assistance with weed identification, contact your local Extension office at: <https://extension.umd.edu/locations>**

## Assistance

MDA has entered into an agreement with 16 Counties throughout the State to provide technical assistance to landowners for initiating noxious weed control programs. Many of the programs provide herbicide application to landowners on a fee-for-service basis. **To learn whether your County has a Weed Control Program, please contact the State's Plant Protection and Weed Management Program at (410) 841-5920.**



## Herbicide Management

Glyphosate-resistant weeds, including Palmer amaranth require intensive management and careful herbicide selection to ensure good control.

1. **Start clean** using a good burndown herbicide program or tillage. Apply residual herbicides with multiple effective modes-of-action at planting.
2. **Apply effective POST herbicides before weeds are 3-4" tall** include an additional residual herbicide in the tank to extend control later into the growing season.
3. **Use harvest weed seed control tactics** to avoid spreading seed at harvest.
4. **Harvest weed free areas first** and infested areas last. Clean the combine after harvesting infested areas.

**For specific herbicide recommendations as well as organic options, contact University of Maryland Extension Weed Management Specialist, Kurt Vollmer: [kvollmer@umd.edu](mailto:kvollmer@umd.edu) or Ben Beale: [bbeale@umd.edu](mailto:bbeale@umd.edu)**

### Key Impacts:

- Palmer amaranth competes aggressively with crops
- Plants can grow over 1 inch per day during summer months and commonly reaches heights of 6- 8'
- Yield losses have been up to 91% in corn and 79% in soybean
- Other traits: prolific seed production, season-long emergence, & resistance to herbicides.

### Links:

<https://extension.umd.edu>

<https://mda.maryland.gov/plants-pests>

**Scan with smart phone for more ID pictures and information:**



Maryland Department of Agriculture  
Plant Protection & Weed Management  
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