Time for farmers to weed out
Palmer amaranth, waterhemp

If you drive into the country, you may notice farmers checking their soybean fields; some may use binoculars or fly a drone to see the whole field. They are looking for two pigweed species that need to be removed before they go to seed — Palmer amaranth and waterhemp.

These weeds have caused major financial losses in other soybean growing regions in the country. Palmer amaranth and waterhemp are difficult to control. Battling them will significantly increase the cost of an herbicide program. If not controlled, soybean yields may be reduced as great as 40 percent.

Palmer amaranth and waterhemp can take over a field faster than the typical weeds farmers see in our area. These tough pigweed species can grow 2 to 3 inches per day under ideal conditions.

They are also prolific seed producers. One female plant competing with soybeans can produce 100,000 seeds in a growing season and in non-competitive situations, produce a half million seeds. Seeds are very small and can easily be moved in seed, feed and machinery.

Farmers in Hancock and surrounding counties have been checking their fields for the past several years to keep these tough weeds out of our area. In Hancock County, a few plants of Palmer amaranth were found in 2016 and 2017, all were removed before going to seed. No fields have been found with a dense population.

For waterhemp, plants were first found in a few fields in 2016 but farmers were able to remove them before going to seed. However, in 2017, several different fields were found to have dense populations of glyphosate resistant waterhemp, evidence that a few plants in earlier years were allowed to go to seed.

Now that waterhemp has established populations in some fields, farmers will have to be diligent to limit its spread to new fields. Mark Loux, the Ohio State University Extension Weed Specialist, recommends the following steps to keep Palmer amaranth and waterhemp from establishing populations in fields:

• Walk into the field to check out any weeds that could be Palmer amaranth or waterhemp. These weeds will be taller than the soybean canopy.

• Local Extension offices will assist identification. Palmer and waterhemp are considerably different in appearance than giant ragweed and marestail, the most other common late-season weeds.

• Scout field borders, adjacent roadsides, flood areas, manure applied fields, and conservation/wildlife area seedings. The latter may contain Palmer amaranth and waterhemp that grew from seed sources collected from states that do not prohibit these weeds from being harvested with conservation species.

The Ohio Department of Agriculture will test any seed that will be used for conservation or wildlife purposes for the presence of Palmer amaranth.

• Where the presence of Palmer amaranth or waterhemp is confirmed, check to see whether plants have mature seed by shaking/crushing parts of the seedhead into your hand or other surface that will provide contrast. Mature seed will be small and very dark.

Plants with mature seed should be cut off and bagged (at least the seedhead) and removed from the field, or removed via any other method that prevents seed dispersal through the field.

• If Palmer amaranth or waterhemp population is too dense to hand remove from a field, a farmer will have to consider two options:

  One, do not harvest, but mow areas infested with Palmer amaranth or waterhemp several times to prevent seed production, or two, harvest infested fields after all other fields have been harvested and clean the combine thoroughly before further use.

  Harvesting through patches of infested fields first may further spread weed seed throughout the field and also contaminate the combine, which can then disperse weed seeds to other fields.

So far, farmers have been successful in keeping Palmer amaranth out of Hancock County. Unfortunately, waterhemp has established populations in a few fields across the county. Farmers have the next few weeks to remove individual plants in new fields before they go to seed.

Additional information may be found on Palmer amaranth and waterhemp at osu.edu/waterhemp, or go to "weeds" and then "Palmer amaranth." An excellent brief video on identification and a management fact sheet can be found at this site.

Palmer amaranth and waterhemp will have no hairs on the main stem. The common redroot pigweed will have fine hairs on the main stem. Palmer amaranth will have a long seed head, and on female seed-bearing plants the seed head will be rough to touch and feel like sandpaper.

Lentz is extension educator for agriculture and natural resources for the Ohio State University Extension Service in Hancock County. He can be reached at 419-422-3851 or via email at lentz.38@osu.edu.

Lentz can be heard with Vann Wickerham on weekdays at 6:35 a.m. on WFNI, at 5:43 a.m. on WKXA-FM, and at 5:28 a.m. at 106.3 The Fox.