

AGRONOMIC Spotlight



Post-harvest Management of Palmer Amaranth

Control of Palmer amaranth is essential in maintaining profitable cropping systems in the Midsouth and Southeast, and post-harvest management can benefit long-term control of this difficult weed. When fields are harvested in late summer or early fall, weeds can continue to germinate and grow to cause management problems for the following season. Palmer amaranth can be especially problematic since it only has to reach a few inches in height to produce a seed head with thousands of viable seeds. Control of Palmer amaranth needs to be continued even after a crop is harvested.

To potentially reduce weed control problems for the next growing season, farmers should continue to control Palmer amaranth seedlings from now until temperatures no longer allow for germination. Palmer amaranth may be present in corn fields late in the season as their growth is suppressed by the tall corn plants, but once corn begins to mature and dry down the weed can once again grow vigorously. Weeds that are not controlled this season can set seed and contribute to the seedbed. While not all fields are candidates for fall programs, farmers should concentrate on fields where Palmer amaranth exists prior to harvest, as harvest equipment can move the seed to multiple areas of the field.

Two options should be considered for controlling existing and fall-germinating Palmer amaranth to reduce introduction of new seeds to the seedbed:

1. Tillage can be very valuable in many situations and may be considered an option for weed control where appropriate.
 - Tillage reduces reliance solely on herbicides.
 - Periodic tillage is a cultural practice that can benefit management systems by removing trash build up on the soil surface and can smooth field ruts.
 - Tillage can help break certain weed patterns.
2. The introduction of herbicides with different modes of action can help reduce the risk of certain weeds from becoming dominant in a production system. Post-harvest herbicide recommendations include:
 - Contact herbicides, such as Gramoxone Inteon®, can be used effectively to control small Palmer amaranth.
 - Tank-mixes of Roundup® agricultural herbicides with a growth hormone herbicide, such as 2,4-D, or dicamba can also help control small Palmer amaranth.



Figure 1. Palmer amaranth plant.

When Palmer amaranth weeds set seed in the fall, dramatically higher weed populations may result during the next growing season. Controlling Palmer amaranth post harvest can help reduce weed populations from year to year and allow for a more efficient use of herbicides and other cultural practices during the growing season.

For more information contact your local Monsanto representative and visit the following websites:

www.weedtool.com www.weedresistancemanagement.com

Sources: Weed Risk Assessment. Best Practices. 2007. Weed Resistance Risk Assessment Tool. Best Management Practices. www.weedtool.com

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