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**Abstract**
The presence of Palmer amaranth was recently confirmed in Harrison County near the Missouri River. The infestation was in two fields that have a history of land application of sludge. Because of the magnitude of the infestation, we believe the weed has been present for at least two growing seasons. We suspect the weed probably has spread to other fields in the area, but at this time we have not verified this.

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**Disciplines**
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Palmer Amaranth Confirmed in Western Iowa

By Bob Hartzler, Department of Agronomy, and Rich Pope, Harrison County Extension

The presence of Palmer amaranth was recently confirmed in Harrison County near the Missouri River. The infestation was in two fields that have a history of land application of sludge. Because of the magnitude of the infestation, we believe the weed has been present for at least two growing seasons. We suspect the weed probably has spread to other fields in the area, but at this time we have not verified this.

Photo 1. Long, terminal inflorescence branches are a characteristic of Palmer amaranth. Its presence was recently confirmed in Harrison County.

The confirmation of Palmer amaranth at this site reinforces the need for thorough scouting of fields to make positive identification of the weeds present in individual fields. Although Palmer amaranth has a distinctive growth habit and is visibly different from waterhemp, casual observations are unlikely to differentiate the two species.

Palmer amaranth has received much publicity due to its impact on crop production in other areas of the country. Although it is a difficult weed to manage, we believe that with integrated weed management programs Palmer amaranth should not pose insurmountable challenges for Iowa farmers. Select herbicides that are highly effective against Amaranthus species, waterhemp and Palmer amaranth respond similarly to most products. The use of full rates of preemergence herbicides and timely postemergence applications will be the backbone of management programs for most farmers. The use of post-applied residual herbicides (e.g., Warrant,
Dual II Magnum, Zidua, etc.) in 30-inch row soybeans will further reduce selection pressure by postemergence herbicides. These are the same approaches we recommend for managing waterhemp.

We appreciate the watchful eye of the local farmer who suspected the escaped Amaranthus species might be Palmer amaranth and contacted us. We encourage continued vigilance for the presence of this weed and will appreciate being contacted when suspect populations are found. Remember, the simplest and most cost-efficient manner of managing Palmer amaranth, or any new weed species, is early detection and eradication before a permanent infestation is established. If found early, plants can be removed from the field before seed production establishes a permanent seed bank and persistent problem.

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