Western Iowa Palmer Amaranth Tour

I spent Saturday of the Labor Day weekend touring the known infestations of Palmer amaranth in western Iowa (Page, Fremont and Harrison Counties). The first stop was a co-op in Page County where Palmer had been found in an adjacent soybean field prior to the 2013 harvest. Earlier this summer my students had observed Palmer scattered throughout the gravel work/storage areas and were concerned about the logistics of controlling the Palmer in this area. I was happy to see the people at the co-op had done an excellent job controlling the Palmer before it had a chance to produce seed. Unfortunately there were numerous Palmer plants on the edge of an adjacent cornfield and I suspect more inside the field.

From there I skipped over to Fremont County in the very southwest corner of the state. It was disheartening to find 7-foot tall, mature Palmer amaranth in a seed company’s show plots at this location. This appears to be a small infestation that could be eradicated with a modest effort. It appears there is a good likelihood the seed will be spread by equipment during harvest.

Then I headed north to the first documented Palmer amaranth infestation in Iowa – Harrison County. This is the most extensive of the known Iowa sites, with Palmer amaranth infesting several hundred acres. I was told I would have a hard time finding enough plants to collect seed for research aimed at improving our understanding of how well adapted Palmer is to Iowa. Unfortunately that wasn’t the case. Herbicide trials had been established in one of the fields, and this area was very clean with only a few escapes. However, the adjacent fields managed by different farmers were heavily infested with Palmer amaranth.

This trip reinforced the difficulty in differentiating Palmer amaranth and waterhemp from the road. With so many fields having heavy waterhemp pressure, it’s easy to get complacent when looking for Palmer amaranth. The majority of waterhemp and Palmer amaranth plants have the same general shape and growth habit. This reinforces the need to closely examine the floral characteristics of the two pigweeds – the large bracts of female Palmer amaranth make it simple to differentiate Palmer from waterhemp.

My Palmer amaranth tour reinforced the difficulty in preventing the spread of a new weed such as Palmer amaranth. Some growers will take the problem seriously and take the effort to try and eradicate new infestations. Others will simply treat Palmer amaranth as any other weed and accept escapes in their fields. High seed production and the efficiency of field equipment at disseminating seeds will facilitate the movement of Palmer amaranth across Iowa. However, individual farmers can prevent it from becoming established in their field with a combination of vigilance and diverse weed management.

On a closing note, one of my grad students (The Palmer Princess) spent part of the Labor Day weekend at a lake home on Clear Lake. By sheer chance she encountered a single Palmer amaranth plant growing in the garden at this house. How the plant got there we have no idea, but if she was able to encounter a random single plant at this location I suspect there are many more Palmer amaranth infestations across the state that we are unaware of.

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September 3, 2014