Glyphosate-Resistant Palmer Amaranth Status in Tennessee

University of Tennessee

Larry Steckel
Pigweed Status

- There are 4 fields in three counties with confirmed glyphosate-resistant Palmer pigweed.
  - 1.5 to 5x reduced sensitivity to glyphosate.
  - Placed on Ian Heap site.

- There is 1 field where we are investigating possible GR waterhemp.
  - Field testing showed possible resistance.
  - Greenhouse screen ongoing.
Palmer Pigweed Glyphosate Screen

2006-2007

- 2-5 x Less sensitive to glyphosate
- 1.5-3 x Less sensitive to glyphosate
- susceptible
22 fb 22 ozs/A Roundup WM
22 fb 22 ozs/A Roundup WM
22 fb 22 ozs/A Roundup WM
108 ozs/A Roundup WM
Waterhemp-108 ozs/A Roundup WM
108 ozs/A Roundup WM
Palmer will have petioles longer than the leaf while Waterhemp will have petioles the same size to shorter than the leaf.
Waterhemp and Palmer
40 (2") + 88 (6") + 88 (18") oz/A Roundup WM
40 oz RWM fb disk fb 22 oz/RWM 1st/4th nodes fb 29 oz Ignite
22 oz/RWM 1st/4th nodes fb Ignite hooded

22 oz/RWM 1st/4th nodes fb 0.15 oz Envoke fb 29 oz Ignite hooded
GR Weed Summary

- GR horseweed a problem in all cotton and 90% of the soybean acres.
  - Starting to become evident in corn as well.
- GR Palmer pigweed is probably an issue in about a dozen fields in 3 counties.
  - The switch to corn acres has hidden this problem in these fields.
- Waterhemp is being screened.
- Giant ragweed (glyphosate-tolerant/resistant) is a serious problem in a number of fields in 4 counties.
  - This was my #1 “new” call in 2007.