

Cotton. (*Gossypium hirsutum* L.).
 Pennsylvania Smartweed (*Polygonum pensylvanicum*),
 Common Lambsquarters (*Chenopodium album*), Marestalk (*Conyza Canadensis*), Common Ragweed (*Ambrosia artemisiifolia*) and Palmer Pigweed (*Amaranthus palermi*)

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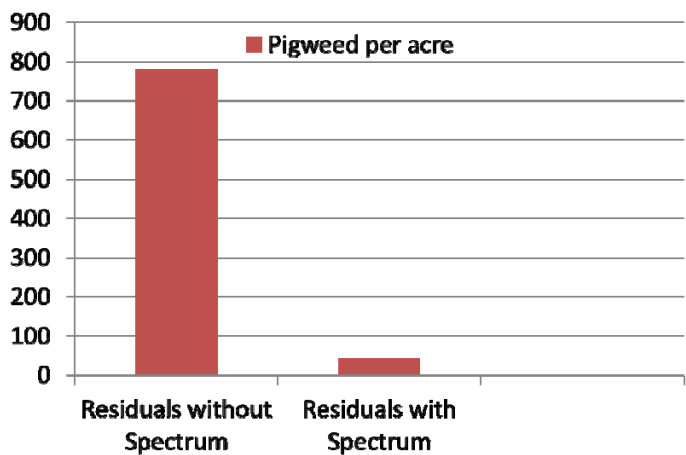
Spectrum Applied as a Spray Partner for Improving Preemergence Weed Control in Cotton, 2011

Two strip trials were conducted to evaluate Spectrum applied with preemergence herbicides. Cotton was planted on May 6th, 2011, and a preplant burndown application of Liberty[®] at 29 oz/A was made to ensure weed-free plots at planting. Preemergence applications of Reflex[®] 1pt/a + Diuron 1pt/A; Reflex[®] 1pt/a + Diuron 1pt/A + Spectrum 8oz/A; Staple[®] 2oz/a + Diuron 1pt/A; Staple[®] 2oz/a + Diuron 1pt/A + Spectrum 8 oz/A were applied at planting. Treatments were applied in 12 x 45 ft long strips. All plots included 4 rows of cotton and were sprayed at 15 GPA. Weeds present at application were Palmer pigweed, marestalk, lambsquarter, and henbit.

Spectrum is a nonionic spray adjuvant that contains methylated seed oils and an organo-silicone based surfactant/emulsifier system. It provides penetration properties superior to crop oil concentrate with the coverage of a nonionic adjuvant.

At the Brock trial location, 31 pigweed plants, ranging from 2" to 3" in height, were counted in the area treated with Reflex[®] and Diuron. Only 1 pigweed was found in the area treated with Reflex[®], Diuron and Spectrum. No pigweed was found in both Staple[®] + Diuron applications. Where Spectrum was used with Reflex[®] and Diuron, there were .19 pigweeds per 100 square feet. Where no Spectrum was used, there were 5.7 pigweeds per 100 square feet.

At the Hunter trial location, 7 pigweeds were counted in the Reflex[®] and Diuron plot and only 1 pigweed was observed in the Reflex[®], Diuron + Spectrum plot. Only 1 pigweed was observed in the Staple[®] and Diuron plot and no pigweed was found in the Staple[®], Diuron + Spectrum plot. Average pigweed count per 100 ft² when using Reflex[®] + Diuron and Staple[®] + Diuron, both without Spectrum, was 1.795. Average pigweed count per 100 ft² when using Reflex[®] + Diuron and Staple[®] + Diuron, both with Spectrum, was .095.



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