

**BROADLEAF WEED CONTROL IN  
COTTON WITH STAPLE - 1995**  
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**Abstract**

Staple provided excellent ( $\geq 90\%$ ) postemergence control of Palmer amaranth, entireleaf morningglory, ivyleaf morningglory, and jimsonweed. Control of common cocklebur and coffee senna ranged from 85 to 89 and 82 to 96%, respectively. Postemergence control of sicklepod with Staple ranged from 0 to 44%. However, 89 to 91% control of sicklepod was observed when the postemergence application of Staple was preceded by a preemergence application of Cotoran @ 2.0 lb ai/ac.

**Introduction**

Staple received registration for use in cotton in September, 1995. Staple provides postemergence control of a broad spectrum of broadleaf weeds in cotton, and has substantial preemergence activity on some weed species. We have evaluated weed control in cotton with Staple over the last 7 years in South Carolina.

**Materials and Methods**

Broadleaf weed control in cotton with Staple was evaluated in nine experiments at three locations in South Carolina in 1995. Crop injury and weed control was evaluated 2 to 3 and 4 to 5 weeks after application of the postemergence herbicide(s).

**Results and Discussion**

Palmer amaranth control with Treflan or Prowl applied preplant incorporated (PPI) followed by Staple applied postemergence (POST) @ 1.2 oz product/ac (1 oz ai/ac) ranged from 96 to 98 and 85 to 98% 2 and 4 weeks after treatment. Treflan or Prowl PPI followed by Cotoran preemergence (PRE) followed by Staple POST provided 94 to 100% control of Palmer amaranth. Control of entireleaf morningglory and ivyleaf morningglory with Staple POST ranged from 68 to 79 and 95 to 100% 2 and 4 weeks after treatment, respectively. Common cocklebur control with Staple POST ranged from 85 to 89% 2 to 4 weeks after treatment. However, Staple has no residual activity on common cocklebur, and follow-up treatments were needed to provide adequate season-long control. As observed in previous years, Staple provided excellent (93 to 100%)

control of jimsonweed. When preceded by a low rate of Cotoran PRE (1.2 lb ai/ac), Staple POST provided only 32% control of sicklepod. However, sicklepod control with Cotoran PRE @ 2.0 lb ai/ac followed by Staple POST was at least 89%. Coffee senna control with Staple POST ranged from 82 to 96% 2 to 4 weeks after treatment.

Staple generally provided good to excellent (80 to 100%) control of most problem broadleaf weeds in South Carolina cotton. However, control of tropic croton, sicklepod, common lambsquarters, and common ragweed has been unacceptable.