

## EVALUATION OF SUPREND FOR WEED CONTROL IN COTTON

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### Abstract

Field studies were conducted at the Dean Lee Research Station near Alexandria, La and at the Northeast Research Station near St. Joseph, La to evaluate weed control in cotton with Suprend (trifloxysulfuron sodium + prometryn). Experimental design was a randomized complete block with three replications in Alexandria and four replications in St. Joseph. Treatments consisted of a 2x4x2 factorial arrangement of EPOST application (Touchdown IQ (glyphosate) alone at 24 oz/A or in combination with Dual Magnum (metolachlor) at 16 oz/A); Suprend rate (12, 16, 20, or 24 oz/A); and Suprend application timing (postemergence directed (PD) or layby (LYBY)). All Suprend treatments included a nonionic surfactant at 0.25%. Treatments were applied at 15 GPA over-the-top and 7.5 GPA postemergence directed at Alexandria to each four row, 10' x 40' plot. EPOST, PD, and LYBY timings corresponded to 5, 10, and 16-inch cotton, respectively. Weeds evaluated included prickly sida (*Sida spinosa*), hemp sesbania (*Sesbania exaltata*), barnyardgrass (*Echinochloa crus-galli*), hophornbeam copperleaf (*Acalypha ostryaefolia*), smellmelon (*Cucumis melo*), Palmer amaranth (*Amaranthus palmeri*), and johnsongrass (*Sorghum halepense*). Weed control was visually rated 34 d after EPOST treatment and seedcotton yield was determined. At St. Joseph, treatments were applied at 15 GPA to each four row, 13.33' x 40' plot. EPOST, PD, and LYBY timings corresponded to 3, 6-8, and 10-12 inch cotton, respectively. Weeds evaluated included pitted morningglory (*Ipomoea lacunosa*), entireleaf morningglory (*Ipomoea hederacea*), hemp sesbania, barnyardgrass, redroot pigweed (*Amaranthus retroflexus*), sicklepod (*Senna obtusifolia*), and broadleaf signalgrass (*Brachiaria platyphylla*). Weed control was visually estimated 27 d after LYBY application and seedcotton yield was determined.

At Alexandria, slight differences within main factors or interactions with main factors were noted for all weeds evaluated, however, control was good to excellent in all cases (89 to 98%). Differences in seedcotton yield were only noted for the EPOST main factor, with yield greater with addition of Dual Magnum to Touchdown IQ compared to Touchdown IQ applied alone (2641 vs 3066 lb/A). At St. Joseph, slight differences within main factors or interactions with main factors were noted for morningglory, hemp sesbania, and barnyardgrass. In most cases, however, control was good to excellent (>89%). Control of redroot pigweed (89 to 95%), sicklepod (92 to 95%), and broadleaf signalgrass (83 to 95%) was equivalent for all treatments as was seedcotton yield.

In the current research, although slight differences were noted between Suprend rates and application timings for several weeds, programs including Suprend as a PD or LYBY treatment resulted in good to excellent control of grass and broadleaf weeds evaluated.