

UTILITY OF PYRIMAX FOR PREEMERGENCE WEED CONTROL IN LOUISIANA COTTON

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Abstract

A field study was conducted in 2010 to evaluate the potential use of Pyrimax herbicide alone or in tank mix combinations for weed control efficacy and cotton phytotoxicity following at planting application in Louisiana cotton. 'DP1028B2RF' cotton was planted on May 26. Soil was a silt loam with pH 6.8. Treatments included a factorial arrangement of Pyrimax rate (1.3 or 2.1 oz/A) and tank mix partner (Cotoran @ 1.34 pt/A; Direx @ 0.84 pt/A; Cotton Pro @ 2.14 pt/A; or no tank mix partner). A total of 0.94 inches of rainfall was received in the 10 d interval following application. Parameters measured included weed control and cotton phytotoxicity 30 and 56 d after treatment (DAT), and seedcotton yield. A maintenance application of Maddog Plus @ 32 oz/A plus Stalwart @ 1.5 pt/A occurred after the final rating.

At 30 d after treatment, averaged across tank mix combinations, control of weeds evaluated was equal for the 1.3 and 2.1 rate of Pyrimax. Averaged across Pyrimax rates, control of hemp sesbania, pitted morningglory, entireleaf morningglory, redroot pigweed, crabgrass, barnyardgrass, and yellow nutsedge was at least 78, 98, 86, 100, 87, 78, and 98%, respectively, and equal among tank mix herbicides and Pyrimax alone. Addition of tank mix herbicides Direx or Cotton Pro increased control of sicklepod over the average of both Pyrimax rates applied alone (96 & 99% vs 89%). Cotton injury was not observed at the initial rating interval. At 56 d after treatment, again weed control was equivalent regardless of Pyrimax rate when averaged across tank mix herbicides. Averaged across Pyrimax rates, control of pitted morningglory, entireleaf morningglory, redroot pigweed, crabgrass, barnyardgrass, yellow nutsedge, and hemp sesbania was at least 100, 78, 100, 93, 53, 100, and 45%, respectively, and equal among tank mix combinations and Pyrimax applied alone. Control of sicklepod was increased with addition of Cotton Pro compared to Pyrimax applied alone (85 vs 70%). Seedcotton yield results reflected differences in sicklepod control. Yield was similar regardless of Pyrimax rate used and addition of herbicides Direx (1538 lb/A) or Cotton Pro (1208 lb/A) increased yield over application of Pyrimax alone (903 lb/A).