

**EVALUATION OF VALOR AS A LAYBY
HERBICIDE IN COTTON**

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Abstract

Two experiments were conducted in 2000 to evaluate Valor as a potential layby herbicide in Louisiana cotton. The two locations evaluated included one that was out of cotton production for eight years and contained primarily perennial weeds, horsenettle, redvine, dewberry, and a substantial population of annual sedge. The second location was a conventional tillage site on a heavy clay soil containing sicklepod, hemp sesbania, barnyardgrass, a morningglory mix, and prickly sida. Location one was near Fort Necessity, LA and planted on May 5, 2000 with Stoneville 4793R. Treatments were applied on July 7, 2000 using a layby rig delivering 10 gallons per acre (GPA). Experimental design was a randomized complete block with 4 reps. Soil type was a sandy loam. Location two was a clay soil in the Mississippi River alluvial floodplain near St. Joseph, LA. The plot area was planted with D&PL 5415 RR on April 26, 2000, and treatments applied on July 14, 2000 using a layby rig delivering 15 GPA. Experimental design was a randomized complete block with 3 replicates.

Treatments at location one included Valor (2 oz/A + 0.25% nonionic surfactant, NIS), Linex + Roundup Ultra (2 qt/A + 1 qt/A), Direx + Roundup Ultra (1 qt/A + 1 qt/A), Command + Roundup Ultra (1.5 pt/A + 1 qt/A) and Caparol +MSMA (2.8 pt/A + 2.2 pt/A). Weed control evaluations were taken at 7 and 14 days after treatment (DAT). Horsenettle control was greatest with the Linex or Command + Roundup Ultra combinations. Valor controlled horsenettle 67%. No differences in annual sedge control were observed, with all treatments providing 100% control by 14 DAT. Trumpet creeper control was greatest at 14 DAT with Linex + Roundup Ultra (83%). All other treatments controlled trumpet creeper 70% or less. Dewberry control was similar. Linex or Direx + Roundup Ultra provided greatest control (83%). All other treatments controlled dewberry 67% or less.

Treatments at location two included Valor (2.0 oz/A + NIS), Valor + MSMA (2.0 oz/A + 2.2 pt/A + NIS), Valor + Roundup Ultra (2.0 oz/A + 1 qt/A), Direx + Roundup Ultra (1 qt/A + 1 qt/A), Caparol + MSMA (2.8 pt/A + 2.2 pt/A), and Command + Linex (0.75 pt/A + 1 pt/A). Weed control evaluations were taken at 7, 14, 31, and 56 DAT. No differences between treatments were observed for hemp sesbania, sicklepod, or morningglory control from 14 through 56 DAT, with any treatment controlling these weeds at least 90%. Barnyardgrass control was at least 93% from 14 through 56 DAT with any treatment except Command + Linex (83%). Prickly sida control was equivalent between all treatments at 31 or 56 DAT, with minimum control being 87%.

Overall, Valor performed equivalently to the currently used layby herbicides in Louisiana when applied to annual weeds. Perennial weeds, however, were not controlled as well with Valor when compared to currently used herbicides applied at layby.