

**VALOR PREPLANT MANAGEMENT SYSTEMS
IN ROUNDUP READY COTTON**

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Abstract

Experiments were conducted at four locations in NC in 1999 and 2000 to evaluate preplant (PP) weed management systems in strip-tillage cotton planted into wheat cover. Valor was evaluated PP at two rates alone and in combination with two commonly used PP herbicides and one experimental PP herbicide. Valor PP at 0.063 or 0.094 lb/ac in combination with Roundup Ultra at 1 pt/ac, Gramoxone Extra at 1.5 pt/ac, or Touchdown 1 pt/ac controlled common chickweed, common lambsquarters, common ragweed, Palmer amaranth, and smooth pigweed = 96% at four wks after treatment. Roundup Ultra, Gramoxone Extra and Touchdown alone provided $\geq 91\%$ control of common chickweed and henbit four wks after treatment; however, control of common lambsquarters, common ragweed, large crabgrass, Palmer amaranth, and smooth pigweed was $\leq 50\%$. Valor-containing treatments injured cotton ($\leq 5\%$) at one location. Cotton yield differed between years but was not affected by various Valor treatments as compared to non-Valor containing treatments. In all comparisons within a location, Valor PP at 0.063 or 0.094 lb/ac in combination with Roundup Ultra, Gramoxone Extra or Touchdown provided higher yields than Roundup Ultra, Gramoxone Extra or Touchdown PP alone. The inclusion of a residual herbicide such as Valor in a PP burndown treatment should reduce early season weed interference and provides a longer interval between burndown and POST applications. Because many reduced-tillage systems utilize Roundup-Ready cultivars, Valor PP may reduce the number and type of problematic weeds found in reduce-tillage and Roundup-Ready cotton systems.