PREEMERGENCE/POSTEMERGENCE STAPLE COMBINATIONS IMPROVE WEED CONROL IN COTTON

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Abstract

Devil's-claw (Proboscidea Louisianica) and red morningglory (Ipomoea coccinea L.) continue to be major weed problems for cotton producers in the Texas Southern High Plains. Field experiments in 1997 were conducted at the Texas Agricultural Experiment Station near Lubbock and near Earth Texas, to evaluate weed control using Staple applied preemergence (PE) alone at 0.032, 0.047, and 0.063 lb ai/A or at 0.032 lb ai/A in combination with PE applications of Caparol and Karmex at reduced rates of 0.8lb ai/A and full rates of 1.2 and 1.0 lb ai/A. Staple PE treatments were also compared to Karmex at 0.8 and 1.0 lb ai/A, Caparol at 0.8 and 1.2 lb ai/A, Cotoran at 1.0 lb ai/A, and Caparol plus Zorial at 1.2 plus 0.5 lb ai/A. PE combinations of Staple at 0.032 lb ai/A plus Caparol or Karmex at both reduced and full rates were followed by a PT application of Staple at either 0.047 or 0.063 lb ai/A. Both locations received preplant incorporated applications of Treflan at 0.75 lb ai/A over the entire test area and all PT treatments were made on 1-3 inch weeds. PE combinations of Staple plus Karmex or Staple plus Caparol using reduced rates of either Caparol or Karmex proved more effective than PE applications of Karmex, Caparol, Cotoran or Caparol plus Zorial for controlling devil's-claw and red morningglory. PE combinations of Staple plus Karmex or Caparol at 0.032 plus 0.8, 1.2 or 1.0 lb ai/A followed by a PT application of Staple at either 0.047 or 0.063 lb ai/A controlled devil's-claw 99% and red morningglory 97% sixty days after treatment. These treatments were more effective than PE applications of Caparol, Karmex, Cotoran, or Caparol plus Zorial and combinations of Staple plus Caparol or Karmex.

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