Weed Control Programs in Peanut with Reflex, Sharpen, and Spartan.

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Because peanut is considered to be a minor crop by many outside the southern U.S., research and development for potential new herbicides is limited. Therefore, the objectives of this research were to evaluate the use of Reflex (fomesafen), Sharpen (saflufenacil), and Spartan (sulfentrazone), for weed control in peanut and to compare these herbicides to current standards such as Strongarm (diclosulam) and Valor (flumioxazin). Replicated, small-plot, field trials were conducted in 2009 at two locations in Georgia (Tifton, Plains). Preemergence (PRE) applications of the following treatments were evaluated: Strongarm 84WG at 0.45 oz/A; Valor SX 51WG at 3 oz/A; Strongarm at 0.23 oz/A + Valor @ 1.5 oz/A; Spartan 4F @ 4, 5, 6, and 8 oz/A; Reflex 2SL at 12 and 16 oz/A; and Sharpen 2.85SC at 1 and 2 oz/A. All treatments also included Prowl H20 3.8ASC at 34 oz/A (PRE) and Cadre 2AS at 4 oz/A + Agrioil at 1% v/v (POST). In Tifton, both rates of Reflex and Sharpen at 2 oz/A caused significant peanut stunting that was observable as late as 55 days after treatment. In Plains, the greatest amount of peanut injury (leaf burn) observed was from Spartan at 6 and 8 oz/A. At both locations, all PRE treatments provided ≥ 92% control of Palmer amaranth (Amaranthus palmeri). In Tifton, annual morningglory (Ipomoea spp.) control was ≥ 98% with all PRE treatments except Reflex (75%), Sharpen at 1 oz/A (85%), and Spartan at 4 and 5 oz/A (83-88%). In Plains, Florida beggarweed (Desmodium tortuosum) control was ≥ 91% with all PRE treatments except Reflex (36-57%). Peanut yields were significantly reduced by both rates of Reflex and Sharpen, and Spartan at 8 oz/A at the Tifton location. Yield data was not collected at the Plains location due to excessive moisture conditions at harvest.