Peanut Cultivar Response to Flumioxazin Applied Preemergence and Imazapic Applied Postemergence.

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Field studies were conducted in 2009 and 2010 in south Texas (Yoakum) and in the Texas High Plains (Lamesa) to determine peanut cultivar response to flumioxazin applied preemergence and imazapic applied postemergence under weed-free conditions. At Yoakum, two cultivars (Tamrun OL01, Tamrun OL07) were evaluated while at Lamesa, four cultivars (FlavorRunner 458, Tamrun OL01, Tamrun OL02, Tamrun OL07) were evaluated. In 2009, no stunting was noted at Yoakum regardless of cultivar or herbicide treatment. At Lamesa, FlavorRunner 458 and Tamrun OL01 were stunted by flumioxazin at 0.21 kg/ha (6-7%) and imazapic at 0.07 and 0.14 kg/ha (6-17%), Tamrun OL02 was stunted by all rates of flumioxazin and imazapic (5-18%), and Tamrun OL07 was stunted by all rates of flumioxazin and imazapic (6-15%) with the exception of flumioxazin at 0.05 kg/ha. At Yoakum, due to prolonged heavy rains at digging, plots were not harvested while at Lamesa no cultivar response to herbicides was noted. With respect to herbicides, flumioxazin did not have an effect on yield while all imazapic rates reduced yields when compared with the untreated check. In 2010 at Yoakum, little or no (<2%) herbicide stunting was noted on any cultivar and only imazapic at 0.14 kg/ha caused significant stunting (7%). No yield differences were noted between cultivars or herbicide treatments. At Lamesa, all cultivars were stunted by herbicide treatments (6 to 9% stunting). No peanut stunting was noted with flumioxazin at 0.05 kg/ha while imazapic at 0.04 kg/ha and flumioxazin at 0.11 kg/ha resulted in 4 and 6% stunting, respectively. Flumioxazin at 0.21 kg/ha and imazapic at 0.07 kg/ha resulted in 12% stunting and imazapic at 0.14 kg/ha stunted peanut 19%. Both Tamrun OL01 and Tamrun OL07 produced lower yields (≤6369 kg/ha) than FlavorRunner 458 (7252 kg/ha) and Tamrun OL02 yields were intermediate (6889 kg/ha). Peanut yields from herbicide treatments were not different from the untreated check.