

## **Peanut Response to Diclosulam.**

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Diclosulam is an effective preplant and preemergence (through cracking) herbicide for use in peanut. When diclosulam was registered for use in peanut over 15 years ago, significant stunting and yield loss occurred in west Texas in the first year of its use. A major factor involved in this injury was believed to have been a sensitive peanut variety (FlavorRunner 458) that was introduced during the launch year. Since that time, diclosulam use in west Texas has been prohibited and the current label states that diclosulam cannot be used in New Mexico, Oklahoma, and Texas. A peanut tolerance study was conducted during the 2018 growing season in the High Plains of Texas near Lubbock and in south Texas near Yoakum under weed-free conditions. Diclosulam at 0.024 (1X) and 0.047 (2X) lb ai/A was applied preemergence (PRE) and at-crack (AC). Georgia 09B was planted in Lubbock while Georgia M-13 was planted at the Yoakum location. The soil type in Lubbock was an Acuff loam (<1% OM, pH 7.8) and the soil at Yoakum was a Tremona loamy fine sand (1% OM, pH 7.6). In the study at Lubbock, when evaluated 18 and 28 days after PRE application [6 and 16 days after crack (DAC), respectively], no difference in peanut stand, canopy height, or canopy width was observed when compared to the non-treated control. At 18, 28, 41, 56, and 70 days after planting, no peanut injury was observed. Peanut yield following diclosulam treatments ranged from 1346 to 1672 lb/A and was not different from the non-treated control. At the Yoakum location, no peanut injury was noted with any diclosulam rate or timing. Yield ranged from 3340 to 3689 lb/A and was not different from the non-treated control. No difference in peanut grade was observed at either location. Additional studies will be conducted in 2019 to determine peanut safety to diclosulam when using current peanut varieties in Texas.