

Peanut Response to Multiple Exposures of Low Rates of Enlist Duo®

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Cotton was planted on 6.8 million acres in Texas in 2020. Although the majority of these acres were planted to XtendFlex® cotton varieties, Enlist™ cotton made up approximately 15% or 1 million acres. The increase in Enlist™ cotton acres would suggest an increase in the number of applications of Enlist Duo® (2,4-D Choline + glyphosate) with Colex-D® technology. Peanut tolerance studies were conducted in 2019 and 2020 in Gaines County, TX and in south Texas near Yoakum under weed-free conditions. Enlist Duo® was applied at 0.0195 (1/100X) or 0.039 (1/50X) lb ae/A at 30 and 60 days after planting (DAP) or at 30 followed by (fb) 60 fb 90 DAP. Peanut visual injury was scored on a scale of 1-5 (1=no injury, 2=25% of leaves exhibiting symptoms, 3=50% of leaves exhibiting symptoms, 4=75% of leaves exhibiting symptoms, and 5=100% of leaves exhibiting symptoms). Plant stunt, yield, and grade were determined. Georgia 09B was planted at both locations in both years.

In Gaines County, a visual injury scores up to 1.88 and 2.8 was observed following the low and high rate of Enlist Duo®, respectively, but no injury was observed 100 days DAP. In 2020, no visual injury was observed following the low rate of Enlist Duo® and no injury score exceeded 2 following the high rate regardless of the number of sequential applications. No peanut stunt was observed in either year. Peanut yield ranged from 6933 to 7588 lb/A in 2019 and from 3238 to 3619 lb/A in 2020 and were not different from the non-treated control. No difference in peanut grade (SMK, SS, SMK+SS, OK) was observed in either year at Gaines County.

At the south Texas location near Yoakum, a visual injury score up to 2 was observed in 2019 regardless of Enlist Duo® rate and number of sequential applications. In 2020, no visible injury was observed following the low rate of Enlist Duo®, but an injury score as great as 3 was observed following the high rate. No peanut stunt was observed in 2019 and 2020. Peanut yield ranged from 2661 to 3230 lb/A in 2019 and from 2184 to 2698 lb/A in 2020 and were not different from the non-treated weed-free control. No difference in peanut grade (SMK, SS, SMK+SS, OK) was observed in either year at Yoakum.