

Effect of Dicamba or 2,4-D plus Glyphosate Drift Rate and Exposure Timing on Peanut Response

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Field research were conducted to evaluate response of peanut exposure timing at 25, 50, or 75 days after planting (DAP) to dicamba or 2,4-D with glyphosate. Dicamba plus glyphosate was applied at 1.1+2.5, 4.4+10, 17.6+40, and 70.4+160 g ae ha⁻¹; and 2,4-D plus glyphosate was applied at 2.1+2.2, 8.4+8.8, 33.6+35.2, and 134.4+140.8 g ae ha⁻¹. At 4 WAT, peanut injury from dicamba plus glyphosate was >12% while exposed at 25 DAP compared to 50 DAP or later. Peanut injury with 2,4-D plus glyphosate was in the order of 25 DAP (24%) > 50 DAP (18%) > 75 DAP (12%). At 4 WAT, peanut injury ranged from 10 to 44% and injury increased with the higher rates of dicamba plus glyphosate. Similarly, peanut canopy, height, and yield reduction across dicamba plus glyphosate rates ranged from 1 to 32%, 3 to 31%, and 3 to 41%, respectively.

Peanut injury from 2,4-D plus glyphosate was from 8 to 38% and similar rate response was observed. Peanut canopy reduction (>19%), height reduction (>21%), and yield reduction (>9) was greater when exposed to dicamba plus glyphosate at 25 DAP compared to 50 or 75 DAP. Likewise, peanut canopy reduction (>13%) and height reduction (>6%) with 2,4-D plus glyphosate was observed greater at 25 DAP compared to 75 DAP, but there was no response on yield reduction. Peanut canopy, height, and yield reduction from 2,4-D plus glyphosate rate was 1 to 22%, 2 to 23%, and 5 to 33%, respectively.