EFFECT OF 2,4-D DRIFT ON ROUNDUP READY SOYBEAN YIELD COMPONENTS. Andrew P. Robinson and William G. Johnson, Graduate Student and Associate Professor, Department of Botany and Plant Pathology, Purdue University, West Lafayette, IN 47907.

Although researchers report the effects of 2,4-D drift on soybean yield, no information is published for 2,4-D drift on Roundup-Ready soybean yield components. Our objective was to quantify 2,4-D drift on Roundup-Ready soybean growth, yield components, and seed composition. Two cultivars (Becks brand 342NRR and Croplan Genetics brand RC 2057) were sown on 2 July 2008 in Fowler, Indiana. Eight rates of 2,4-D (0, 0.112, 1.12, 11.2, 560, 1120, 2240, 4480 g ae ha^{-1}) were applied at two timings on Croplan Genetics brand RC 2057 (R2 and R4) and at one timing on Becks brand 342NRR (R1). Across cultivars and application timings yield ranged between 2.9 and 3.2 Mg ha^{-1} when spraying 0 to 11.2 g ae ha^{-1}, decreased to 1.2 Mg ha^{-1} at 560 g ae ha^{-1}, and was between 0.2 and 0 Mg ha^{-1} at higher spray rates. Yield was reduced when visual injury was 40% or greater at 31 DAT. Pods m^{-2}, seed mass, and seed pod^{-1} will be reported.

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