The Effects of Seeding Rate Reductions on the Performance of Roundup-Ready Soybean Cultivars. (C03kratochvil175028-Oral)

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Abstract:

Soybeans are annually produced on 200,000 ha in Maryland. Production is divided nearly equally between full season and double crop systems. The popularity of Roundup Ready (RR) cultivars has been as widespread in Maryland (about 75%) as elsewhere. Cost of RR seed is greater than for seed for non-RR cultivars. Low soybean prices have generated interest about the effect on yield if seeding rates for RR cultivars are reduced below the recommended standards (70,000 and 90,000 seeds ha-1 for full season and double crop production, respectively). This study evaluated four RR cultivars that represented the late three to early five maturity groups. It included two row width treatments (19 and 38 cm) and was grown at two locations/year during 2000 and 2001 in both full season and double crop systems. Four seeding rates were used (20 and 40% less than the standard, the recommended standard, and 20% greater than the standard). A 20% reduction from the recommended standard rate did not cause yield loss for either full season or double crop systems but a 40% reduction resulted in 8.5% and 6.5% yield loss for the two respective systems.

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