Annual Grain Yield and Net Return Variation Among Three Crop Rotations in the Virginia Coastal Plain. (A08-miller162010-Poster)

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Abstract:

The objective of this study was to compare the yields and economic returns of three grain crop rotations in 1998-2001: (i) 3 crops / 2 years (ii) 4 crops / 3 years and (iii) 4 crops / 2 years. Continuous no-tillage was utilized in rotations ii and iii. Yield and/or economic benefits associated with continuous no-tillage crop production systems have not been previously compared to the current conventional tillage systems. The experiment was located on both a relatively high water-holding capacity soil and a sandy, low-water-holding capacity soil. The experiment was conducted on commercial-sized plots with commercial farm equipment and yields collected using a yield monitor and Global Positioning System. Yield data for corn, wheat, barley and soybean are analyzed for significant differences across years, soils, and rotations. Economic returns are presented for scaled-up commercial farms of 810-has. Results indicate substantial relative economic benefits for rotations utilizing appropriately sized no-till machinery complements.

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