Winter Annual Cereals Effect on Residual Soil Nitrate Levels. (A08-jewett194107-Poster)

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Abstract:

The loss of residual soil nitrogen due to leaching may be reduced by using winter annual cereals such as wheat or rye to scavenge the nitrogen over the winter. Eight treatments of winter annuals including no cover, were fall seeded into a field of either corn or soybean residue. In the spring, corn grain, corn silage and soybeans were planted into the winter annuals. Soil samples were taken in the spring and fall, to a depth of 90 cm and divided into 30 cm sections. Nitrogen was extracted from each depth using 1N KCl. The study was performed in 1999-2000 and repeated in 2000-2001. Nitrogen content varied with depth across treatments and between the beginning and end of the growing season. Results indicate winter annual cereals show significantly less residual soil nitrogen at deeper soil depths during the spring. The lower levels of nitrogen over the winter.

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Presentation Information:

Presentation Date: Tuesday, November 12, 2002 Presentation Time: 9:00-11:00 am Poster Board Number: 330

Keywords:

residual nitrates, cover crops, cropping systems, winter annual cereals