Polymer Seed Coatings and Risk Reduction for Early Plant Corn. (C03-murua100222-Poster)

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Abstract:

Most farmers in Indiana are reluctant to plant corn two or more weeks earlier than the optimum planting period, even when soil conditions are sufficiently dry to achieve a suitable seedbed. Temperature-sensitive polymer coatings that postpone water imbibition by corn seeds until soils warm sufficiently may improve successful establishment of early-planted corn. Our objective was to evaluate the effect of different formulations of polymer coatings, relative to non-polymer coated seed, on emergence, growth and yield of two corn hybrids (F.C.8509, F.C.9307) in a no till system. One experimental location with three corn planting dates was established in 2000 and repeated in 2001. Relative to uncoated corn, the polymer coatings were successful in delaying emergence. Grain yields were affected by hybrid and planting dates, but not by polymer seed coatings except for the early planting in 2001, when corn with coated seed of F.C. 9307 resulted in 15-18% yield gains compared to uncoated seed treatment. The latter yield improvement resulted from an increased population. Corn development responses associated with temperature-activated polymers will be discussed.

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