Nitrogen Fixation and Partitioning in Old and New Short Season Soybean Varieties. (C03-omielan165848-Poster)

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Abstract:

This study was initiated to answer the question of whether there has been a change in the response of soybean cultivars to inoculation with Bradyrhizobium japonicum? Six soybean cultivars were chosen which belonged to Maturity Groups 0 or 00. The year of release ranged from 1957 to 1993. The cultivars were Crest (O), Beechwood (O), Maple Arrow (M), Bicentennial (M), PS 42 (N), and Bayfield (N). The experiment was planted on land that had not previously grown soybeans in 2001 and 2002. Treatments were arranged in a split-plot design with inoculation as the main plots and cultivar as the sub-plots. Plants were harvested from subplots at V3, R1, R3, R5, R6, R7, R8 and partitioned into vegetative and reproductive components. The tissue samples were subsequently analyzed for N content. Nodules were sampled at R1 and R5. Combine harvested seed yields as well as seed protein contents were determined. The seed yields in 2001 were depressed by the effects of severe drought and soybean aphid infestations. The responses to these stresses were cultivar specific. Results from both years will be presented and discussed.

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