No-till Soybean Production in a Cool Climate: Planting Date and Weed Management Options. (C03-essah090626-Poster)

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Abstract:

Soybean production is increasing in northeastern United States. However, optimal management strategies are yet to be defined for much of this region. Tillage system, planting date, and weed management are among the factors that influence soybean yield. Field studies were conducted at the USDA-ARS research site in Presque Isle, ME to determine the performance of a '00' maturity group soybean (cv. Alta)under conventional tillage(CT) and no-tillage(NT) using preemergence weed control(PRE) and postemergence weed control(POST)and two planting dates. In a wetter than average year(2000), soybean in CT with PRE produced higher yield than all other treatments, but in a drier year(2001), NT soybean with PRE produced the highest yield. When averaged across tillage systems, PRE increased yields by 52 and 10% in 2000 and 2001, respectively, compared to POST. Yields were similar for CT and NT soybeans when results were averaged across weed control programs. Planting date did not influence soybean yield within a given tillage system. When veraged across planting dates, NT increased yield by 12% compared to CT in 2000, but no difference was observed in 2001. These data indicate that NT soybean production with PRE is a viable management strategy in the cool, humid northeastern United States.

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