Soybean Highly Adaptable to Planting Green

Farmers commonly terminate cover crops two weeks before main crop planting in the spring, often before the covers accumulate appreciable biomass. Planting green, or when cover crops are terminated after corn or soybean planting, is growing in popularity as a tactic to increase cover crop biomass and maintain living roots in the soil for longer. However, research quantifying the effects of planting green on corn and soybean production is limited.

A recently published article in Agronomy Journal evaluates the effect of planting green compared with preplant-killed cover crops on corn and soybean production at five sites for three years in Pennsylvania, USA. Soil was drier at planting, but conserved later in the growing season, and was cooler all growing season in the planting green treatment compared with the preplant-killed treatment. Soybean yield was not influenced by termination timing across 14 site-years, but corn yield was reduced compared with the preplant-killed treatment in high-yielding sites.

Farmers can get more cover crop biomass and associated ecosystem services, specifically soil moisture management, by planting green with no impact on soybean yield. More research is needed to determine best practices for maintaining corn yield in addition to the benefits of planting green.