



Interseeding of Grass and Legume Cover Crops Into Early Vegetative Stage Corn

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Objective

Evaluate the effects of interseeded cover crop species, establishment timing, and seeding method on corn productivity.

Introduction

Soybean planting is one of the most critical operations of the season. Past studies have indicated soybean yields are similar across a wide range of populations, but too low of a population can result in reduced yields and too high of a population can reduce profits. Soybean tends to thrive in the space provided, and does not have as many spatial needs as corn. The objective of these trials was to investigate the effect of various plant populations and various planting dates on soybean yield.

Materials and Methods

Crop Year–2011

Soil Type: Galva	Galva, Primghar
Previous Crop	Soybean
Cultivar	P0622Q
Planting Date	April 26
Row Spacing	30 in
Seeding Rate	35,000 seeds/acre
Tillage	Soil Finisher: April 26
Fertilizer	24-60-80 VRT application: November 3, 2020
Nitrogen	NH3 @ 150 lb N/acre: April 2
Harvest Date	October 15
Experimental Design	split-plot design
Replications	five
Treatments	Cover crop species (CC): Cereal Rye (CR), Cowpea (CP), Annual Rye (AR), and Red Clover (RC). Seeding timings (ST): Corn V5 and V8.

Results

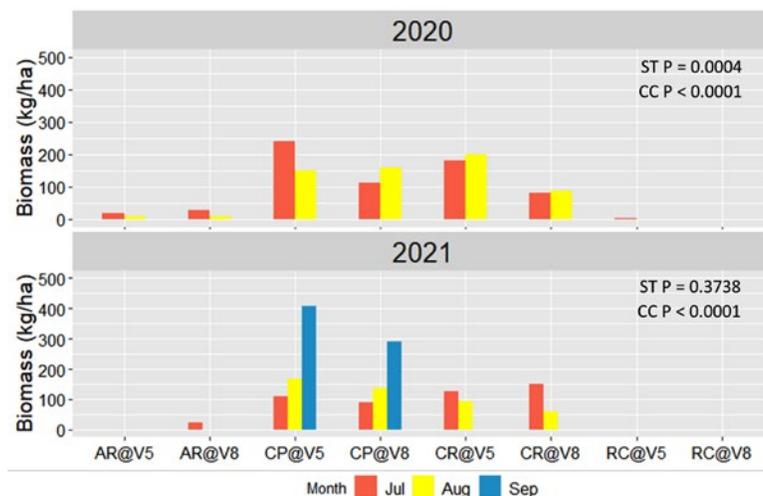


Figure 1. Cover crop biomass in early July, mid-August, and mid-September after interseeding at V5 and V8 corn stage in 2020 and 2021. CC = cover crop species; ST = cover crop seeding timing.

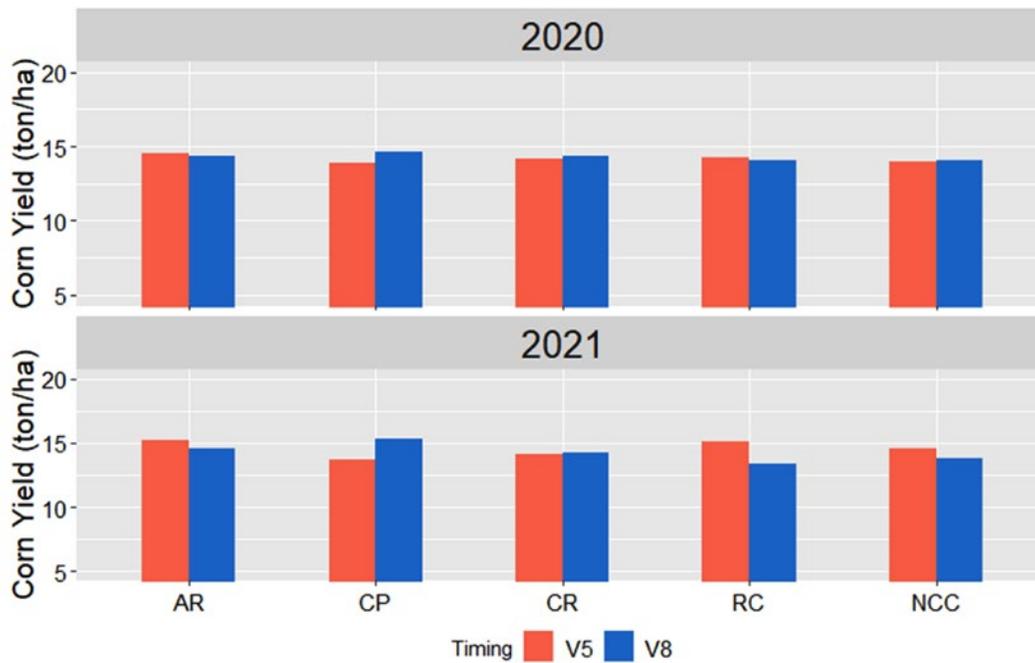


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Key Takeaways

- Not all species are suitable for interseeding into vegetative stage corn, especially in dry years.
- Suitable species must be drought and shade tolerant; shade being more important than drought.
- Seeding time has significant impact on cover crop biomass production.

Acknowledgements

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