

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

Mark Licht—assistant professor, Department of Agronomy

Fernando Marcos—research scientist, Department of Agronomy

Mike Witt—field agronomist, ISU Extension and Outreach

Angie Rieck-Hinz—field agronomist, ISU Extension and Outreach

Objective

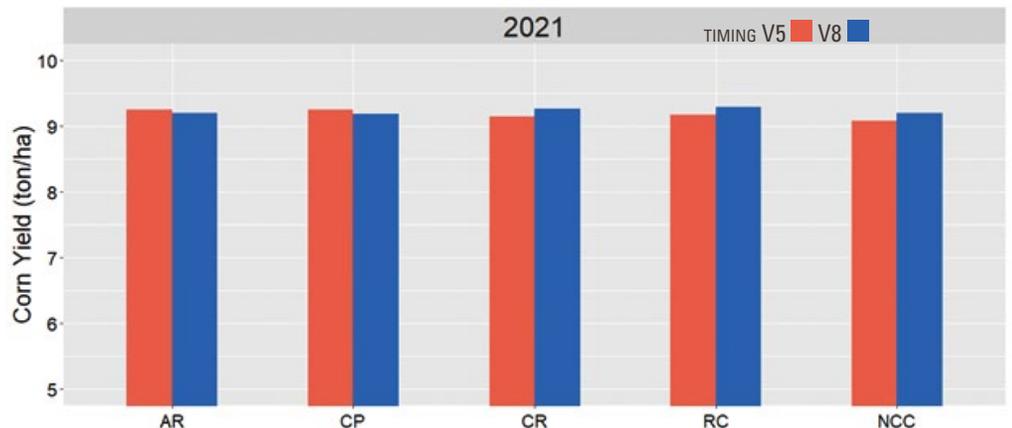
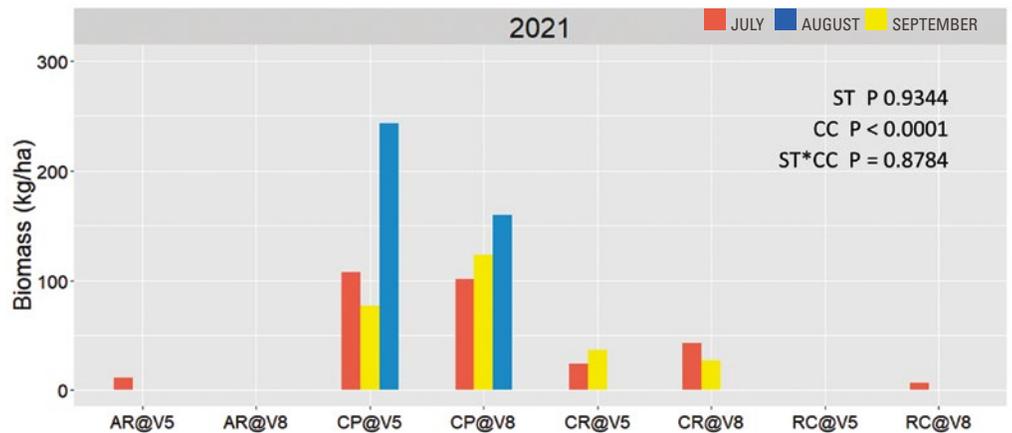
Evaluate the effects of interseeded cover crop species, establishment timing, and seeding method on corn productivity.

Materials and Methods

Crop Year—2021

Soil Type: Galva	Nicollet, Webster
Previous Crop	Soybean
Cultivar	P1108Q
Planting Date	April 26
Row Spacing	30-in.
Seeding Rate	35,000 seeds/acre
Tillage	Soil Finisher: April 23
Fertilizer	285 lb. MAP/acre (11–52–0)
Nitrogen	285 lb. potash/acre (0–0–60): November 3-5, 2020
Nitrogen	52 gal. UAN/acre (32–0–0): April 22, 2021
Harvest Date	October 23
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



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

This project was funded by the Iowa Nutrient Research Center.

