Investigating Soybean response to Phosphorus with a Cover Crop and Fertilizer Combination in Kansas

Jovani Demarco and Dorivar Ruiz Diaz
Kansas State University, Manhattan, KS - jovanidemarco@ksu.edu

Kansas State University
Department of Agronomy

Kansas Soybean Commission

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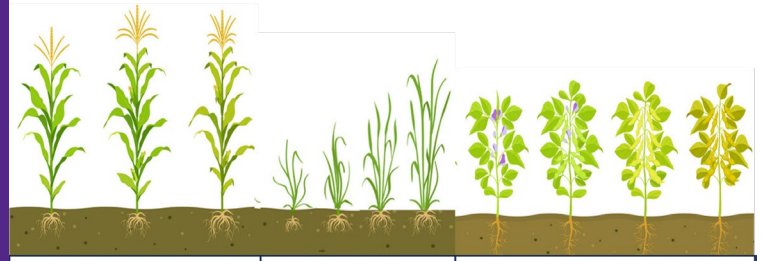

Corn	Cover crop	Soybean
Year 1	Year 2	

This study aims to maximize phosphorus use efficiency by the soybean crop by using cover crop planting as a window of opportunity for better P fertilizer placement and timing.

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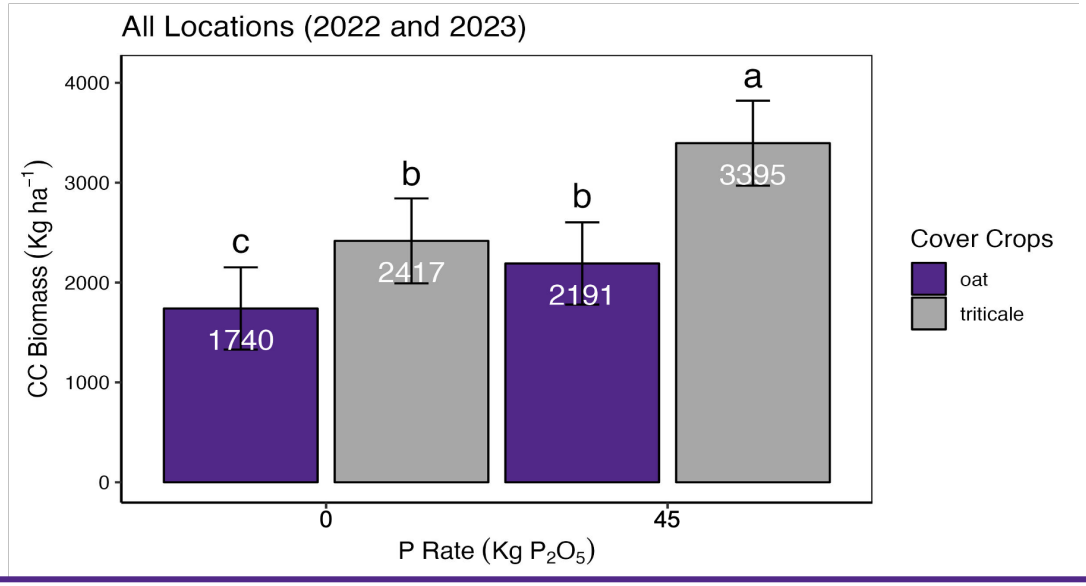

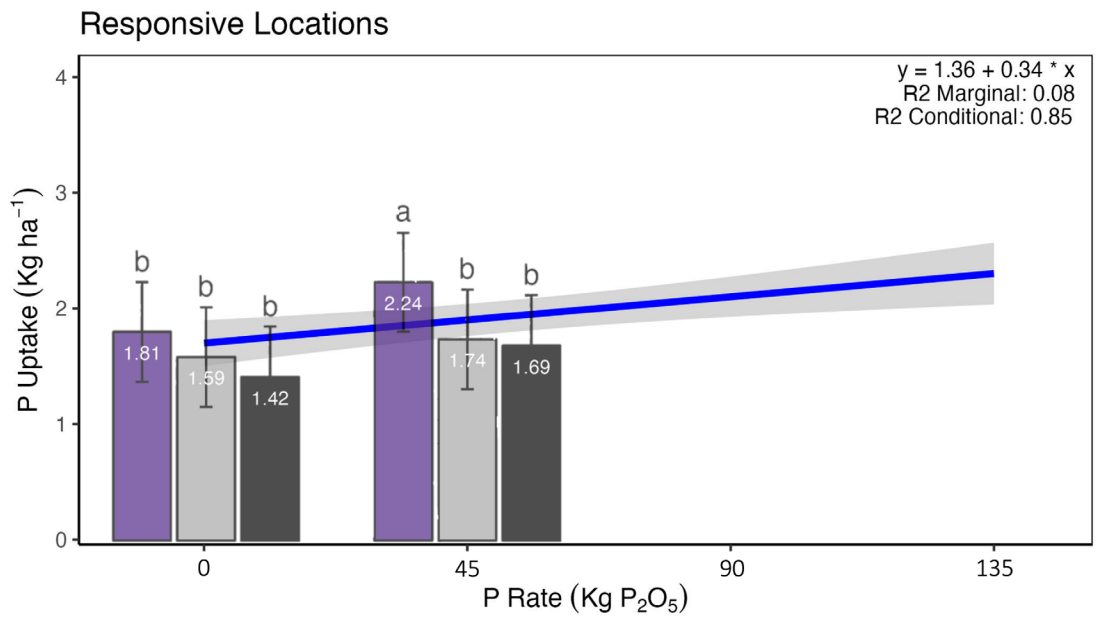

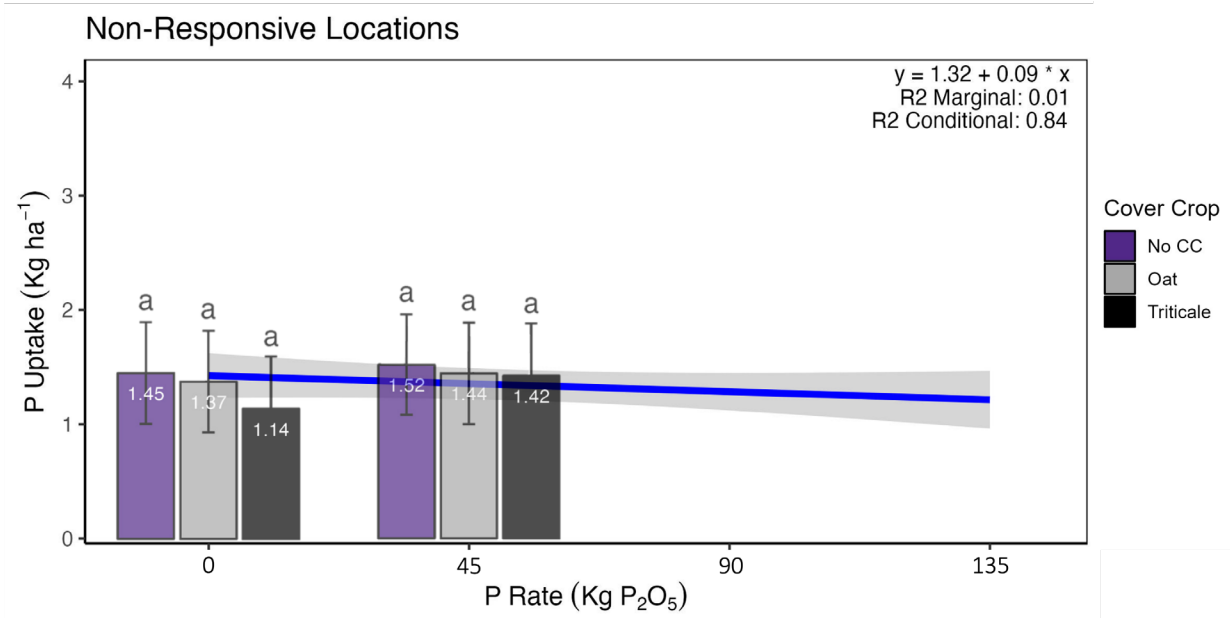

- In non-responsive locations to P fertilization, there was no significant response to cover crop treatments.
- In responsive locations to P fertilization, there was a penalty in soybean growth and yields when adding cover crop to the system.
- Excessive cover crop biomass seems to negatively affect soybean growth and yield, suggesting the need for timely termination of the cover crop. Is possible in dryer Kansas environment the water use by cover crop affected.