

Key Research Needs in Precision Ag: A view from Agronomy, Protein maps

Dr. Ignacio A. Ciampitti

Associate Professor, Integrated Farming Systems
Department of Agronomy, Kansas State University
K-State Research & Extension

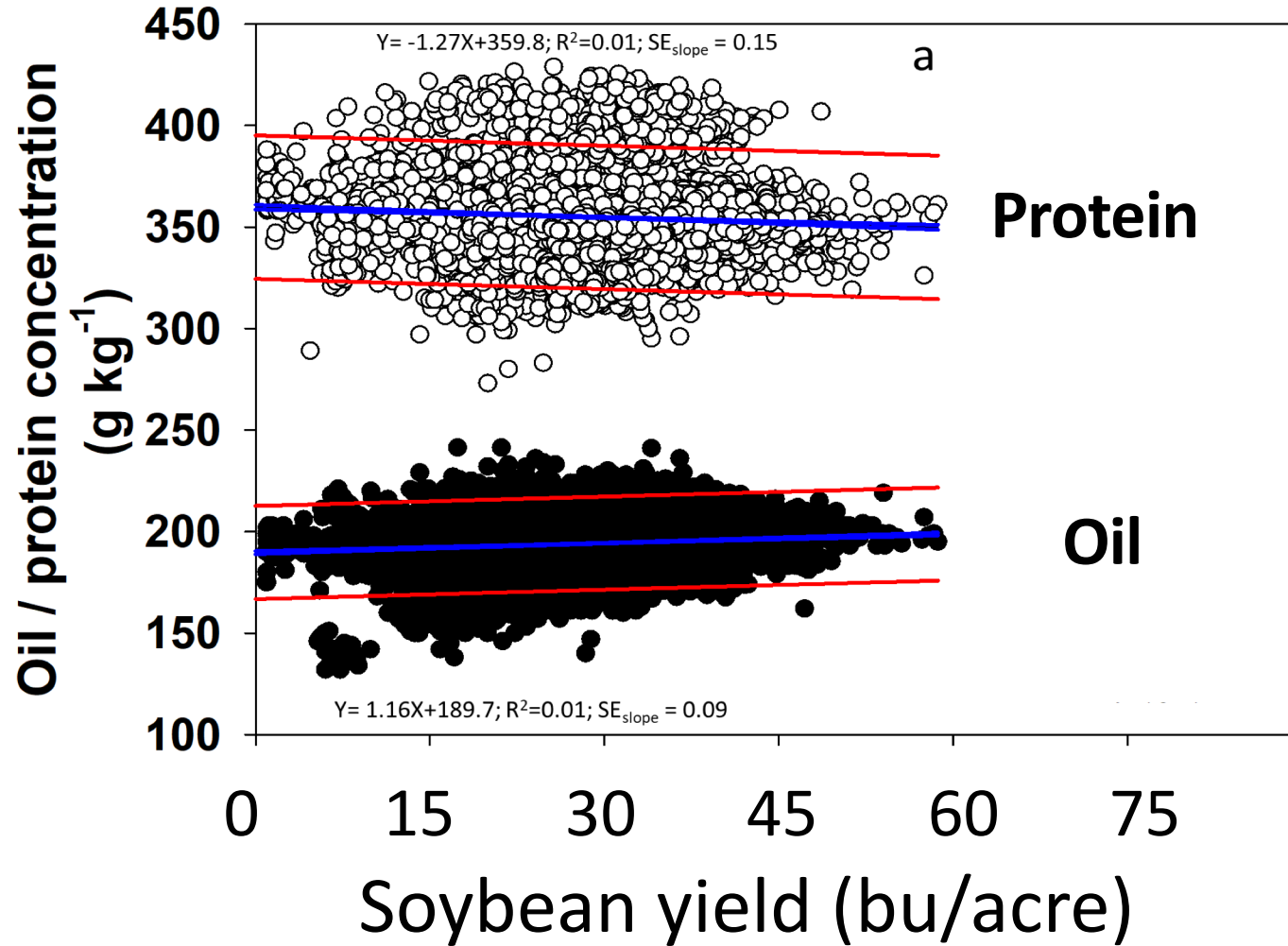
 ciampitti@ksu.edu
 @KSUCROPS
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Luiz Moro Rosso, MS KSUCROPS Lab
Javier Fernandez, PhD KSUCROPS Lab
Adrian Correndo, PhD KSUCROPS Lab

Leonardo Bastos, Post-Doc Researchers KSUCROPS Lab
Andre Reis Borja, Post-Doc Researchers KSUCROPS Lab

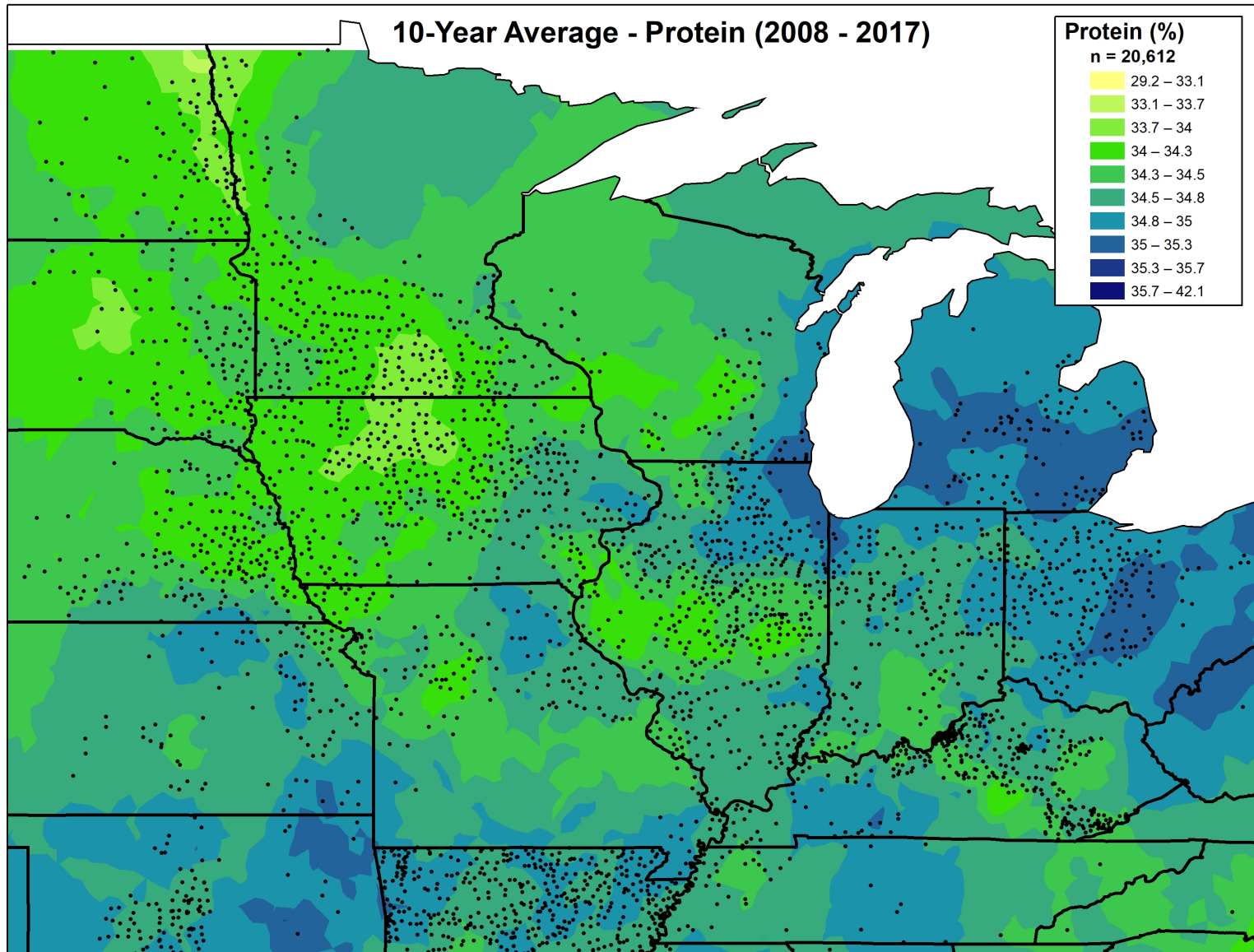


Seed Quality at Harvest: US Soybean Protein

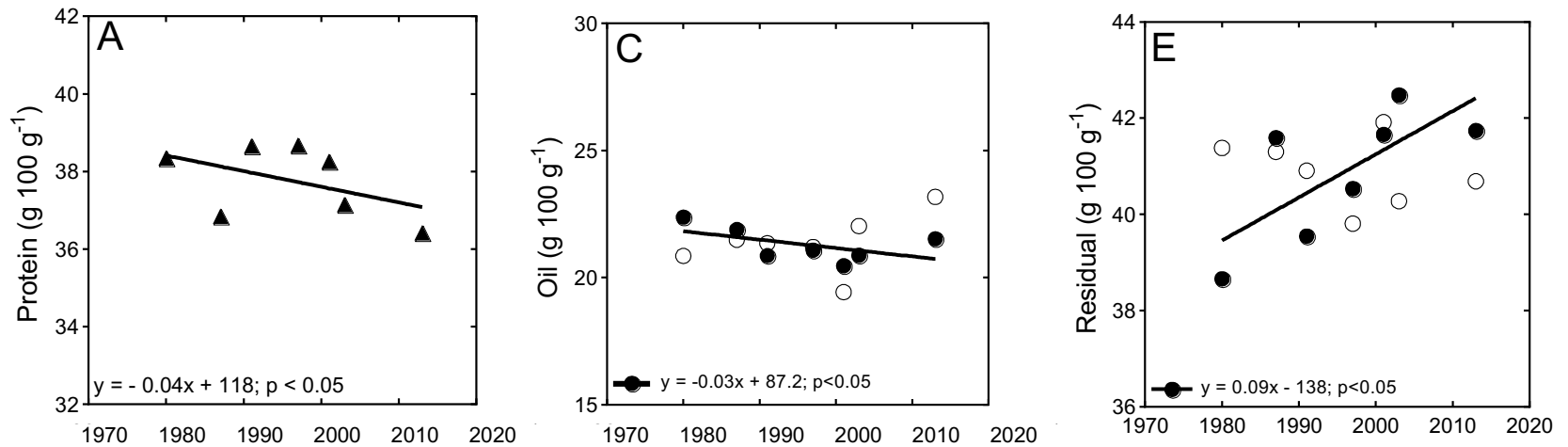


Assefa, Ciampitti, et al. 2019

Seed Quality at Harvest: US Soybean Protein



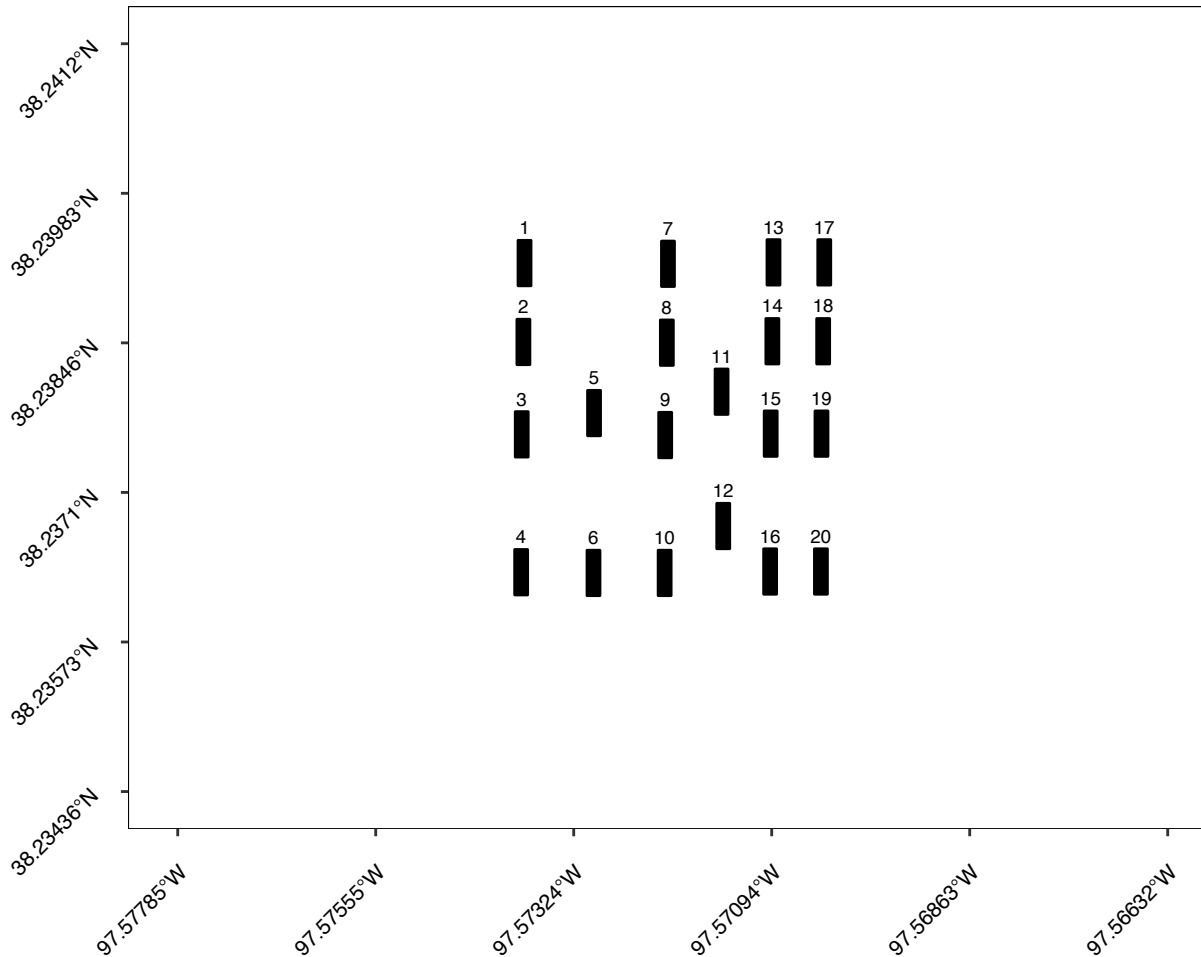
Seed Quality at the field level



Protein dilution with Yield over time time

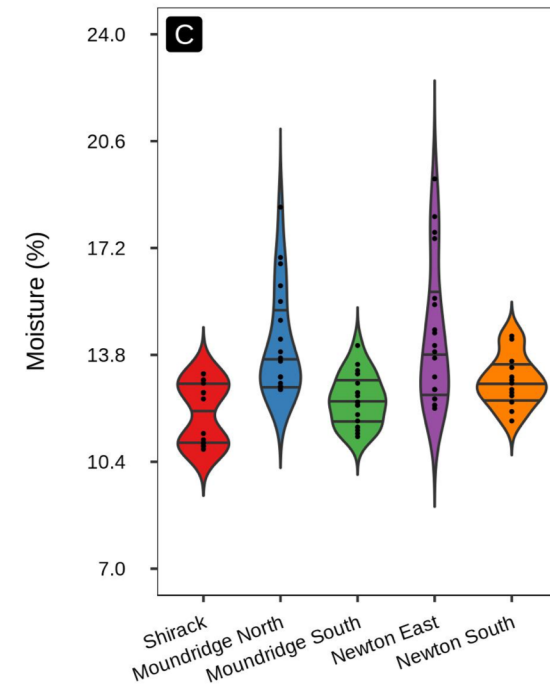
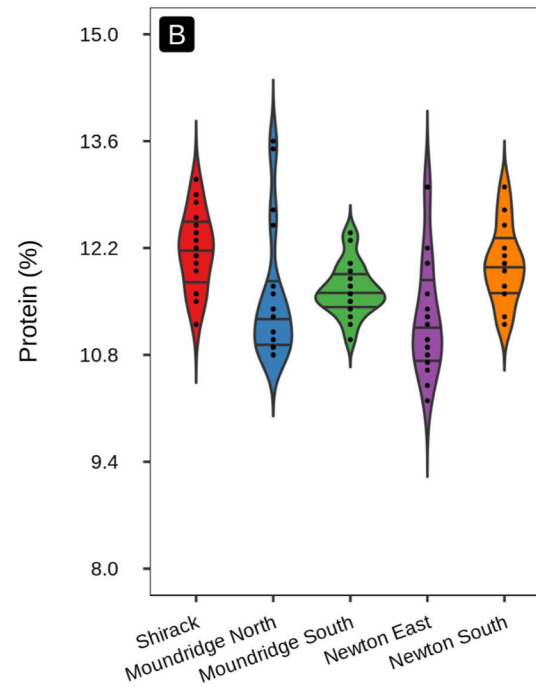
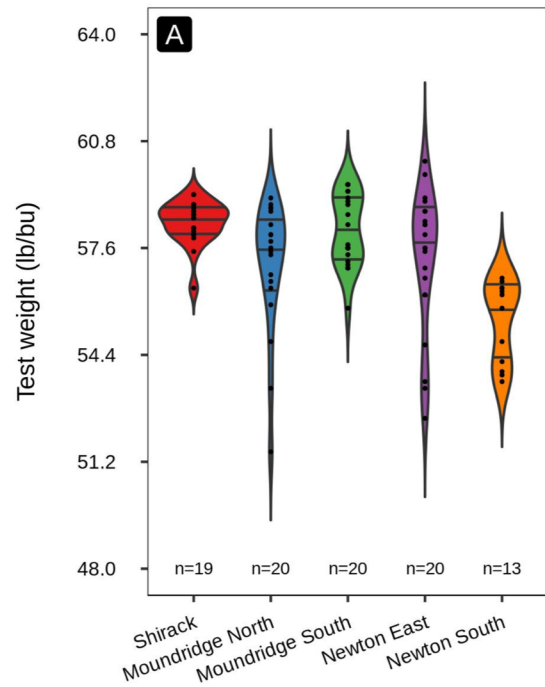
Looking at protein variation within-the field

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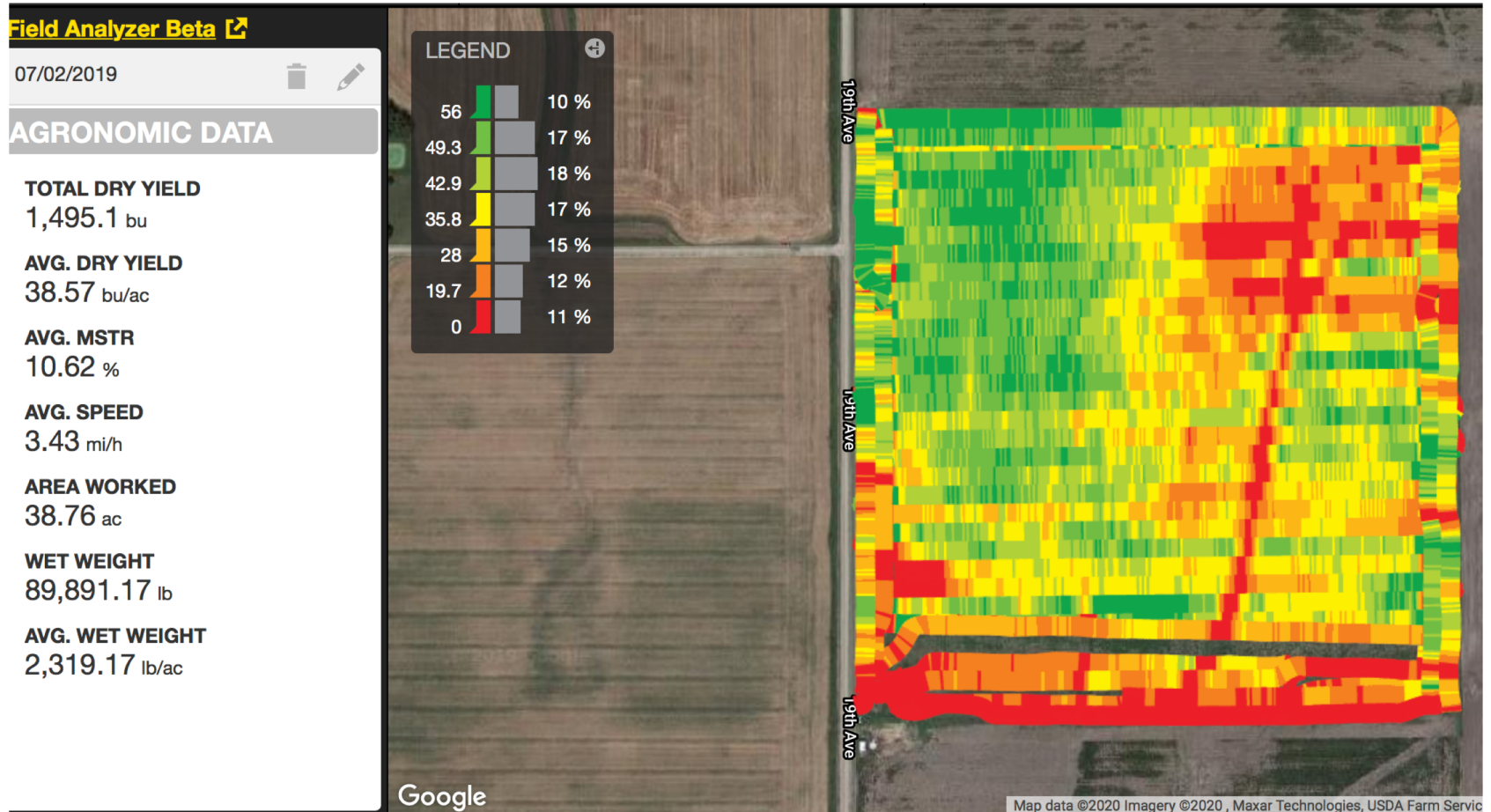
iampitti et al., 2019

Looking at protein variation within-the field



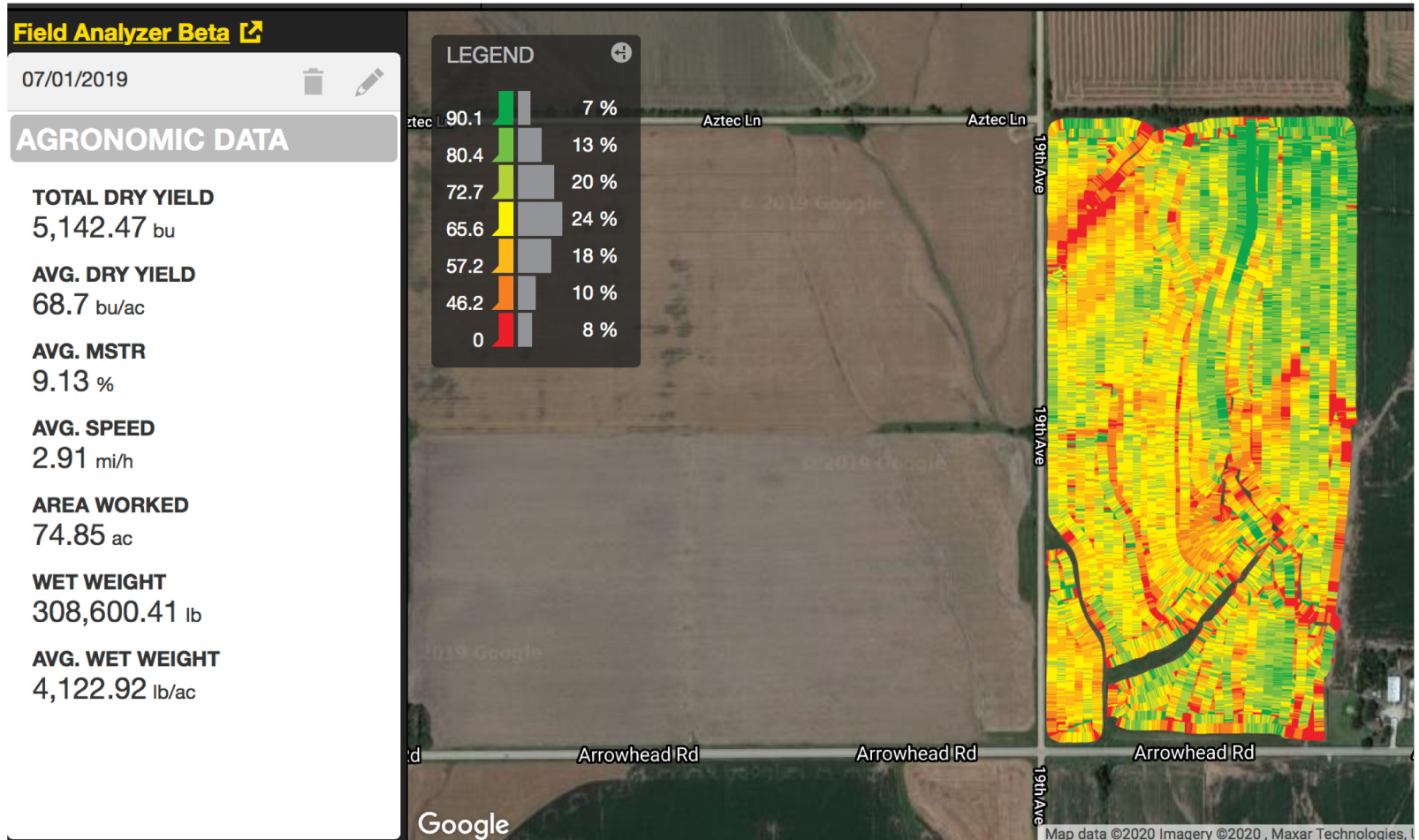
Ciampitti et al., 2019

First looking at wheat yields



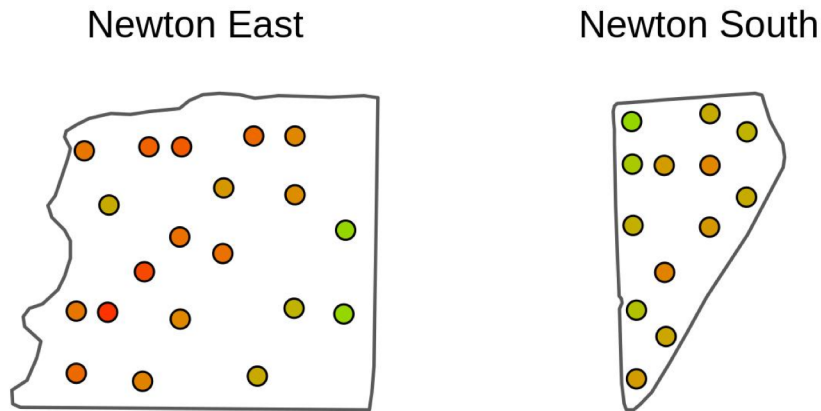
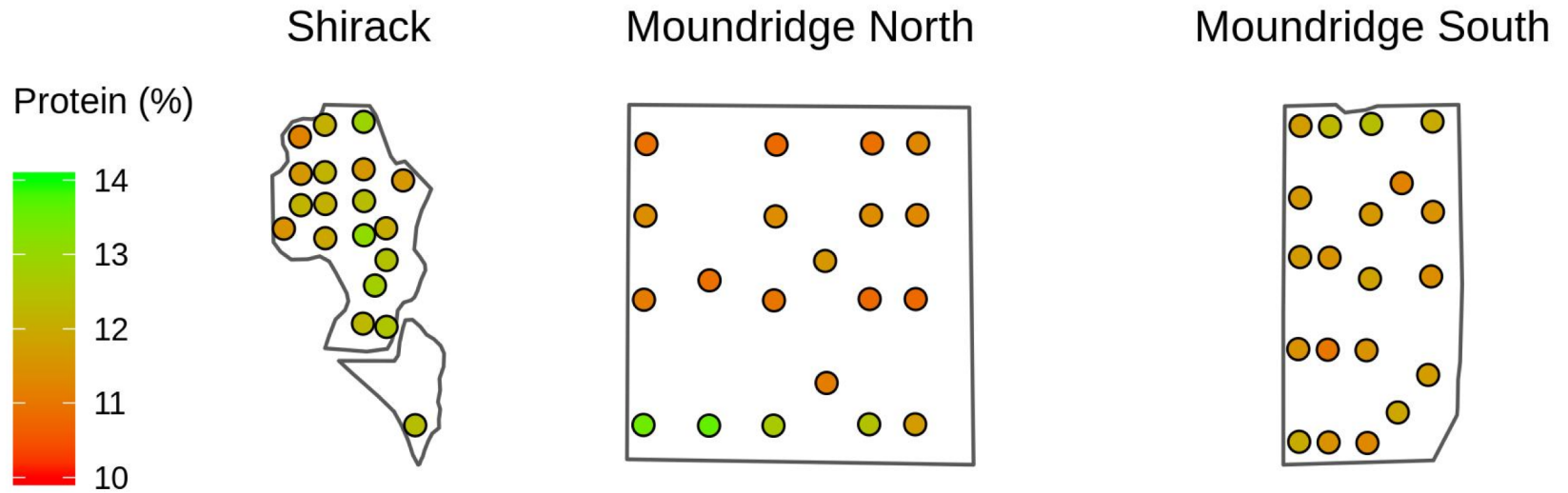
Ciampitti et al., 2019

First looking at wheat yields



Ciampitti et al., 2019

Looking at protein variation within-the field



Segregation for quality within the field

Ciampitti et al., 2019

Take Home Messages

- **Timely characterization of seed quality at harvest will guide protein segregation at the farm-scale,**
- **Improve the estimation of nutrient budgets, minimizing environmental impacts, and**
- **Provide a foundation for improving fertilization plans for the following crop in the rotation.**

THANKS!

QUESTIONS?

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Department of Agronomy,
Kansas State University
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