Managing Protein in Spring Wheat with Aerial and Satellite Imagery. (S08-wright125557-Poster)

Authors:

- D.L.Wright - *Utah State University*
- V.P.Rasmussen - *Utah State University*
- J.W.Ellsworth - *University of Idaho*
- G.L.Ritchie - *Utah State University*

Abstract:

Increasing grain quality using remote sensing can help growers increase revenue and retain buyers. An application of nitrogen (N) at heading is one method of increasing protein content and therefore quality of wheat. Our objective was to obtain spectral signatures of wheat under various N rates (0, 72, 180, 234 kg N/ha) and the response to a midseason N application (54 kg N/ha) at heading. Spectral data were compared to pre-anthesis tissue samples and post-harvest grain quality and bread analysis. Tissue samples were collected in connection with aerial and satellite imagery. Nitrogen rates of 0 and 72 kg N/ha were easily distinguished at midseason with both aerial and satellite imagery.

Corresponding Author Information:

Dennis Wright
Utah State University
4140 Old Main Hill
Logan, UT 84322-4140

phone: 435-797-0496
e-mail: dennisw@cc.usu.edu

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