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# **Precision Agriculture for Improving Wheat Yield and Quality**

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## **CROPS & SOILS**

The magazine for certified crop advisors, agronomists, and soil scientists.

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Nitrogen is one of the most important nutrients for crops. It is required in large amounts for crop production and demands precise nutrient management methods due to its highly mobile property in plants and soils and high chances of leaching. Precise nutrient management is also important for improving the yield and quality of grains, minimizing the input, and maximizing the efficiency. In this episode, Dr. Olga Walsh shares her research on precision nitrogen management for yield and protein

content estimation on spring wheat and sugarbeet by using different handheld sensors, drones, and remote-sensing approaches.

### **Self-Study CEU Quiz**



Earn 1 CEU in Nutrient Management by taking the quiz for the article at <https://web.sciencesocieties.org/Learning-Center/Courses>. For your convenience, the quiz is linked below. The CEU can be purchased individually, or you can access as part of your Online Classroom Subscription.

1. **Nitrogen is highly mobile in plants and soils.**
  - a. True.
  - b. False.
  
2. **Precise nitrogen management is important for**
  - a. higher yield.
  - b. higher protein content.
  - c. higher efficiency.
  - d. All of the above.

3. **Greenness and reflectance of plants are key features measured by sensors to determine biomass and nutrient demand.**
- a. True.
  - b. False.
4. **What is the critical period for the application of nitrogen for better yield and nutrients?**
- a. Germination.
  - b. Harvesting.
  - c. Flowering.
  - d. Vegetative.
5. **High protein content is desired in spring wheat grains for**
- a. baking quality.
  - b. nutrition.
  - c. high market value.
  - d. All of them.

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