

2020 Michigan Wheat Field Day Soil Fertility & Nutrient Management Research

Kurt Steinke, Soil Fertility soil.msu.edu

Lacie Thomas, Graduate Student

June 2020

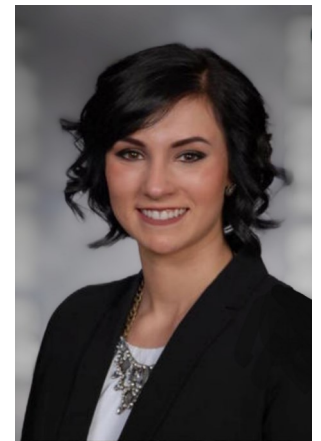
Start Right to Finish Well: Wheat Grain and Straw Production

WHAT? Harvesting wheat straw can enhance overall profitability. Can autumn-applied starter fertilizer enhance straw production and how may wheat grain and wheat straw production relate?

WHY? Practitioners may plant wheat for the value of baling and selling wheat straw in addition to grain. Although taller wheat generally produces more straw, nutrient practices that result in greater grain yield may not translate to increased straw production.

First year trials are underway evaluating both soft red and soft white wheat response across both tall and short varieties.

Three rates of autumn applied starter fertilizer (12-40-0-10S-1Zn) being evaluated across low, medium, and high N application. Grain and straw yield, harvest index, and nutrient removal evaluated.



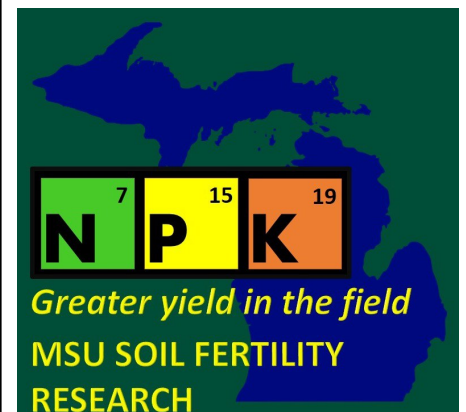
Finding the Starting Line:

Autumn starter increased yield 12-25 and 10-37 bu/A on red and white wheat the last several seasons. However, autumn plant development must be balanced with agronomic and environmental factors.

Autumn N response more probable when pre-plant nitrate is <10 ppm and when following soybean rather than corn.

Soil test P < 25 ppm (Bray) or < 33 ppm (Mehlich) grain yield response is more probable.

Soil test K <100 ppm (coarse) or < 120 ppm (fine texture) grain yield response is more probable.



Additional research results and observations always available at soil.msu.edu