

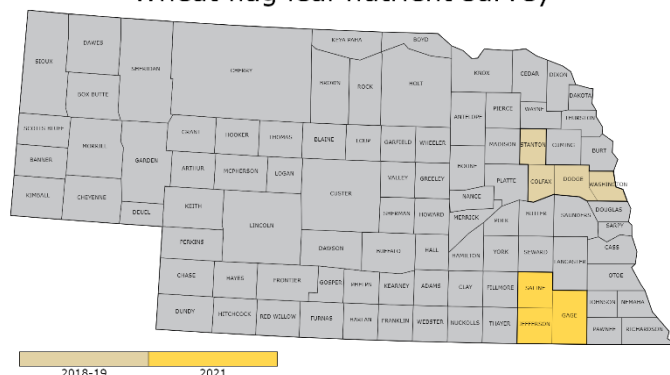
Wheat Flag Leaf Nutrient Survey



Wheat flag leaf nutrient survey

In May of 2018 (10 fields), 2019 (15 fields), and 2021 (31 fields), a multi-county flag leaf nutrient analysis survey of 56 winter wheat fields was conducted when wheat was in the Feekes 10 to 10.4 growth stage (heading). Flag leaves from 50 plants were collected from representative areas in each field and analyzed by Ward Laboratories in Kearny, NE for macronutrients (N, P, K, Ca, Mg, and S) and micronutrients (Fe, Zn, Cu, Mn, B, Cl, plus Mo in 2021).

Wheat flag leaf nutrient survey



Plant tissue nutrient analysis

Wheat nutrient management and fertilizer programs are key aspects of yield potential and profitability. In addition to regular soil testing to guide fertilizer rates, plant tissue nutrient analysis is an additional diagnostic tool to help assess problem areas within fields or as a quality control tool for fertilizer programs. **Table of sufficiency ranges for nutrients in the winter wheat flag leaf during Feekes 10 to 10.4 growth stage by croptechcafe.org below:**

N	P	K	Mg*	Ca	S
3.00 – 4.50%	0.20 – 0.50%	1.30 – 3.00%	0.10 – 0.30%	0.20 – 1.00%	0.15 – 0.55%

*Needs to be further evaluated

Fe	Zn	Cu	Mn
25 – 200 ppm	15 – 70 ppm	2 – 15 ppm	20 – 150 ppm

B	Cl	Mo
2 – 25 ppm	0.18 – 0.60%	0.05 – 2.0 ppm

Survey results

The results represent the percentage of the 56 fields found below the sufficiency range in the survey:

- Nitrogen (N) – 7% (4 fields)
- Phosphorus (P) – 2% (1 field)
- Magnesium (Mg)* – 2% (1 field)
- Sulfur (S) – 4% (2 fields)
- Chloride (Cl) – 23% (13 fields)

Learn more about sulfur and chloride fertility management at <https://croptechcafe.org/sulfur-and-chloride-fertilizer-for-winter-wheat/>

For more information

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Wheat resources for southeast Nebraska at croptechcafe.org/winterwheat