FERTILITY & OTHER NOTES OF INTEREST

PHIL & ROBIN SMITH FARM

Whole Farm Phosphorus and Potassium Levels			
Year	Phosphorus (PPM)	Potassium (PPM)	
2021	24.9	50.1	
2022	29.5	49.5	
2023	30.3	58.3	
2024	31.3 (24.2)	60.3 (192)	
2025	33.2 (23.2)	55.9 (180)	

- Numbers in parentheses () are side-by-side traditional Bray and Olsen soil test results.
- Optimum levels needed: Phosphorus 16-20 PPM / Potassium 110-150 PPM (50 PPM per Haney)
- Phosphorus and potassium levels are at optimum or higher levels for corn and soybean production.
- Phosphorus and potassium levels are actually *increasing* over time.



No phosphorus or potassium has been applied since the fall of 2019 (and some fields in 2018)!

2025 Nitrogen Levels (lbs/acre) in Corn Fields			
Field	Haney	Traditional	
4	154.9	110.9	
5	150.7	111.2	
6	102.8	62.5	
7	142.3	90.0	
8	135.1	83.2	
13	100.9	66.4	
18	118.6	73.8	

- Soil tests taken at V2-V3 staged corn. Tests were processed on June 10.
- Nitrogen recommendations for sidedress / foliar application for a 185 bu yield goal ranged from 5-60 lbs of N.



Only 13 gallons of UAN 32% (45.5 lbs actual N) had been applied (before June 10) over the row with the planter.

OTHER NOTES:

- Across all 18 fields, the soil types vary widely between fields and the pH ranges from 6.1% to 8.0%.
- Micronutrient levels remain relatively stable in each field, but the levels do vary widely between each of the 18 fields.
- Sodium (Na) levels are the one exception and the averaged whole farm levels have declined from 15.1 PPM to 9.5PPM.





Data from Phil Smith, layout support from Holly Hatlewick, Renville SWCD Designed by Kelly Bloedorn, MS, Minnesota Soil Health Coalition