Managing soil fertility during record high fertilizer prices

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Overview

• Nitrogen: return to Nitrogen fertilizer
  – Fertilizer management
  – The role of additives
• Phosphorus: sufficiency vs draw down options
  – $$ return to P fertilizer across soil test levels
  – Value of starter fertilizers and no-till
• Manure as nutrient source

Corn economic optimum N vs maximum agronomic N?

\[ y = 78 + 0.89x - 0.0019x^2 \]

118 trials in Kansas

Should I cut back on N rates with current prices? How much?

\[ \text{Max Return to N} \approx 10\% \]
Can we improve N fertilizer efficiency in corn?

Nitrogen additives?
Urease inhibitors for side-dress urea

Use of nitrification inhibitor (N-serve) with NH3 (150 lbs/a)

Corn response to N applied with and without PivotBio-Proven

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**Corn response to N applied with and without PivotBio-Proven**