Enclosure: Summary of trails

Summary of Graphical Analysis: NH_3 Reduction vs Acid Dose (with pH)

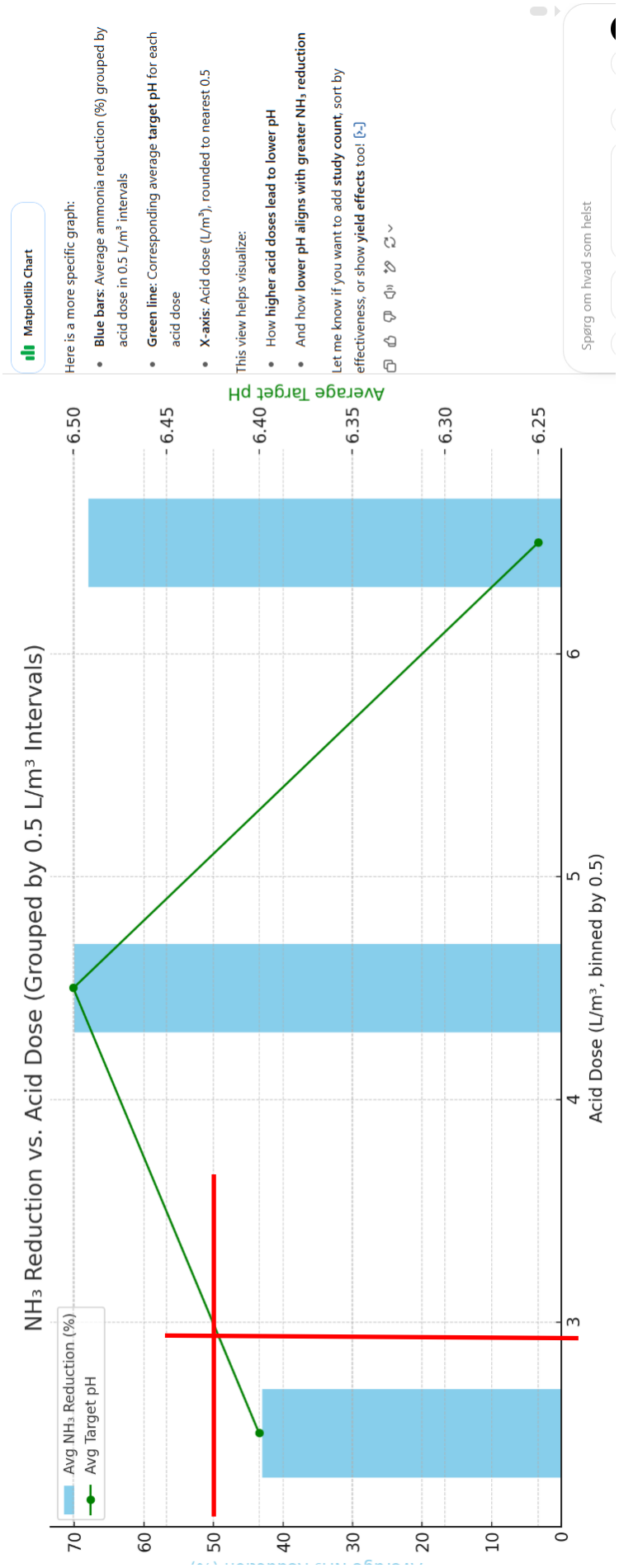
A scatter plot was produced using 60+ trials, showing the relationship between **acid dose (L/m³)** and **ammonia (NH_3) reduction**, with **target pH** represented by color shading.

Key Observations:

- **NH_3 reduction increases with higher acid doses**, particularly above **2.5 L/m³**.
- Trials achieving a **target pH ≤ 6.0** consistently delivered **>60% NH_3 reduction**.
- **Lower pH values (darker dots)** clustered in the **upper-right corner**, confirming strong correlation between **low pH and high NH_3 mitigation**.
- Doses in the **1.7–2.5 L/m³ range** typically resulted in **30–50% NH_3 reduction**, which aligns with moderate sulfur use thresholds (40–50 kg SO_4-S/ha).
- Variability increases at low doses and higher pH, likely due to slurry type, application method, and environmental factors.

Conclusion from the Graph:

Acidification is most effective when the dose is ≥2.5 L/m³ and target pH is ≤6.0. These settings provide high NH_3 reduction with acceptable sulfur loads under common regulatory limits. However, substantial reductions can still be achieved at lower doses if carefully managed.



Summary of Graph: NH_3 Reduction vs Sulfuric Acid Dose

A simplified chart illustrates the relationship between sulfuric acid dose (L/m³) and NH_3 emission reduction (%). The graph connects two key data points: at 1.5 L/m³ acid dose, NH_3 reduction is approximately 35%, while at 4.5 L/m³, the reduction reaches 70%. This linear trend visually confirms that higher acid application leads to greater emission control. It also illustrates that moderate doses (e.g., ≤2.5 L/m³) can deliver meaningful reductions (up to ~50%), while doses above 4.0 L/m³ offer the strongest results—though they may exceed sulfate limits without careful management