On-Farm Fertilizer Trials

Hardin County – Ohio State is looking for farmer cooperators and crop consultants to help conduct on-farm field trials this year. Updating fertilizer recommendations is a major undertaking that will require a collective effort from numerous OSU extension personnel, crop consultants and farmer cooperators. We will be looking specifically at nitrogen (N), phosphorus (P), potassium (K), and sulfur (S) in corn, soybeans, and wheat. We hope to collect data from a large number of farms across the state and determine economically-optimum fertilization rates to maximize farmer profitability. These trials should be considered an opportunity to learn more about your farm’s fertility needs, but also contribute to a state-wide effort for better nutrient management and water quality outcomes.

We can work either directly with farmers, or contract crop consultants and agronomists to conduct the trials and collect data on farmers’ fields. Farmers can choose which nutrient they would like to work with and will have a large degree of flexibility in the plot layout and applied rates. We have funds to compensate both farmers and crop consultants for their time and effort.

Phosphorus, potassium, sulfur trials will involve either applying fertilizer or no fertilizer to replicated strip plots. The farmer can decide the rate and source of fertilizer. We are especially interested in fields that test low in P and K. The data to be collected will include a soil sample before planting, leaf nutrient analysis at early reproductive stage (R1), grain yields and nutrient analysis of grain at harvest, and a short questionnaire about soil management.
Nitrogen rate trials include a full N rate that will be applied in replicated strips (0, 100, 150, 200, 250 lbs N/acre). A zero N treatment is highly desired, but optional. Growers that include a fully replicated zero N treatment will be compensated extra to account for yield loss. The data to be collected in these trials will include soil samples before planting, leaf nutrient analysis at early reproductive stage (R1), corn stalk nitrate sample (optional), grain yields and nutrient analysis of grain at harvest, and a short questionnaire about soil management.

Hardin County OSU Agriculture and Natural Resources Extension Educator Mark Badertscher will work with you to conduct these on-farm research plots, so contact him at 419-674-2297 if you are interested in setting up a plot on your farm. This past year, we had two ‘Corn Response to Nitrogen’ plots in the county with one near Alger and the other near Dola.

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