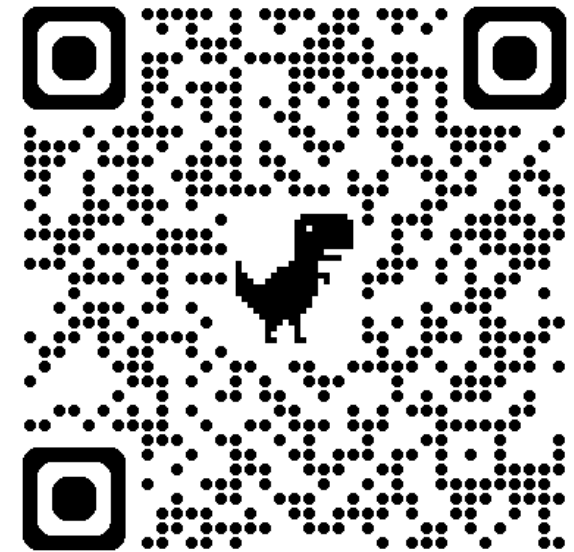


# Building a National Resource for Soil Fertility Decisions: The FRST Approach

***Nathan Slaton***

***University of Arkansas Division of Agriculture***

[Nslaton@uark.edu](mailto:Nslaton@uark.edu)  
[@SlatonNathan](https://twitter.com/SlatonNathan)



<https://soiltestfrst.org/>

# Outline

- Website and rebranding
- Review Goals & Objectives
- Review database progress and content
- Webpage analytics
- NRSP11 Impact/Potential Impacts
- 2026-2027 focal points

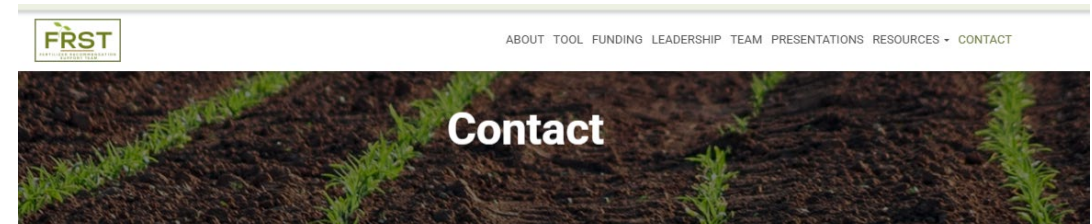
# FRST Rebranding & Website Revision

## Rebranding the “T”

- The project was initiated with the intent of developing a soil test decision support tool
- Objectives and activities have expanded
- To avoid confusion, “decision aid” can be substituted for “tool”
  - FRST Decision Aid



## Website Revision



### Contact FRST

*The Fertilizer Recommendation Support Team (FRST) welcomes questions, ideas, and collaboration from researchers, Extension professionals, laboratories, producers, industry partners, and all stakeholders engaged in advancing soil fertility science.*

*For general inquiries, information about joining FRST, or project-wide information, please reach out to our primary contacts:*

**Dr. Nathan A. Slaton** (University of Arkansas)

Title: Associate Vice President for Agriculture and Assistant Director of the Arkansas Agricultural Experiment Station (AAES)

Email: [nslaton@uark.edu](mailto:nslaton@uark.edu)

**Dr. Luke Gatiboni** (North Carolina State University)

Title: Extension Soil Fertility Specialist and Associate Professor, Department of Crop & Soil Sciences

Email: [luke\\_gatiboni@ncsu.edu](mailto:luke_gatiboni@ncsu.edu)

# FRST Goals & Objectives

- 1 Facilitate a Community of Practice**  
Engage stakeholders through regular forums and collaborative platforms

---

- 2 Catalyze Innovative Nutrient Management**  
Develop decision-support tools for actionable fertilizer recommendations

---

- 3 Enable Data-Driven Decision Making**  
Archive soil-test data and apply innovative modeling for reproducible recommendations

---

- 4 Support Public and Private Stakeholders**  
Collaborate across sectors to ensure tools meet practical needs

---

- 5 Facilitate Cross-Regional Collaboration**  
Harmonize fertilizer recommendations across regions based on scientific evidence

*“Coming together is a beginning. Keeping together is progress. Working together is success.” — Henry Ford*

# NRSP11 Activities (Past & Ongoing)

01

## Survey & Standardize

- Map and understand land-grant soil-test-based recommendations
- Develop **unified terminology** for soil testing

02

## Data Infrastructure

- Define **minimum data** requirements for phosphorus, potassium, & sulfur;
- Build a FAIR-compliant **national database**

03

## Decision Support Tools

- Develop decision aid for soil test **correlation** and **calibration** analysis by region, crop, and soil test method

04

## Methods & Calibration

- Benchmark **relative yield** calculation,
- Evaluate **lime effects and calibrate lime** recommendations across U.S. soils
- Soil depth database & relationships

05

## Stakeholder Engagement

- Survey **end-user practices**, understand farm-level decisions, and identify data gaps for future research
- Connect regional soil test committees

# Active Projects

## • Lime Calibration Committee

- *Amy Shober, Chair*
- *Rajveer Singh, Research Lead*
- Bob Miller
- Shannon Alford
- Luke Gatiboni
- Brad Joern
- John Jones
- Daniel Kaiser
- David Kissel
- Amber Moore
- Stephanie Murphy
- Deanna Osmond
- Manbir Rakkar
- Kurt Schroeder
- John Spargo
- Matt Yost

## Project Overview

- Complete suite of soil characterization data
- Post-lime incubation soil properties
- Lime rate calibration
- Soil scoop density



# Active Projects

## • Calibration Modeling Committee

- *Luke Gatiboni, Chair*
- *John Filippi, Research Lead*
- Greg Buol
- John Spargo
- Carl Bolster
- Megan Bourns
- Adrian Correndo
- Huijie Gan
- Daniel Kaiser
- Emma Matcham
- Kelly Nelson
- Nathan Nelson
- Deanna Osmond
- Rasel Parvej
- Vaughn Reed
- Amy Shober
- Rajveer Singh
- Jared Spackman
- Matt Yost
- Nathan Slaton

## Project Overview

- Comparison of modeling approaches for fertilizer-P & K rate calibration
  - Multiple datasets
  - Multiple modeling approaches
  - Groundwork for modeling ROI calibration

# Active Projects

- OCP-NA Database Publication
  - Ana-Morales-Ona Smith
    - Brian Bohan
    - Seiya
- Data Providers
  - Nutifafa Adotey, Tennessee
  - Eric Brevik, Illinois
  - Adrian Correndo,
  - Dorivar Ruiz Diaz, Kansas
  - Gerson Drescher, Arkansas
  - Bhupinder Singh Farmaha, South Carolina
  - John Fulton, Ohio
- Data Providers Contd.
  - John Jones, Illinois & Wisconsin
  - Daniel Kaiser, Minnesota
  - Andrew Margenot, Illinois
  - Grace Miner, Colorado
  - Nathan Nelson, Kansas
  - Steve Phillips, Oklahoma
  - Manbir Rakkar, Ohio
  - Vaughn Reed, Mississippi
  - Jared Spackman, Idaho
  - John Spargo, Pennsylvania (Lab analysis)
  - Simer Virk, Alabama
  - Matt Yost, Utah

- **Project Overview**
  - Collate plot-level data from all field trials for Open Access publication in Ag Data Commons
- **Data**
  - Soil variability
  - P sources
  - P application timing

# Aspirations

01

## Response Probability Modeling

Incorporate the probability of response into soil test correlation analyses through innovative modeling

02

## ROI-Based Recommendations

Incorporate return on investment into soil test correlation and calibration modeling to inform stakeholders of fertilization profitability

03

## Multi-Variable Correlation

Develop complex models using multiple soil-test variables to more accurately predict crop response to fertilization

04

## Method Conversion

Incorporate equations to convert nutrient concentrations between extraction methods, expanding available data for correlation and calibration

05

## Yield-Specific Calibration

Investigate correlation and calibration relationships considering crop nutrient needs for different yield goals and soil buffering capacities

06

## Regional Meta-Analysis

Use meta-analysis to identify physiographic regions that can share data-driven, soil-test recommendation logic

07

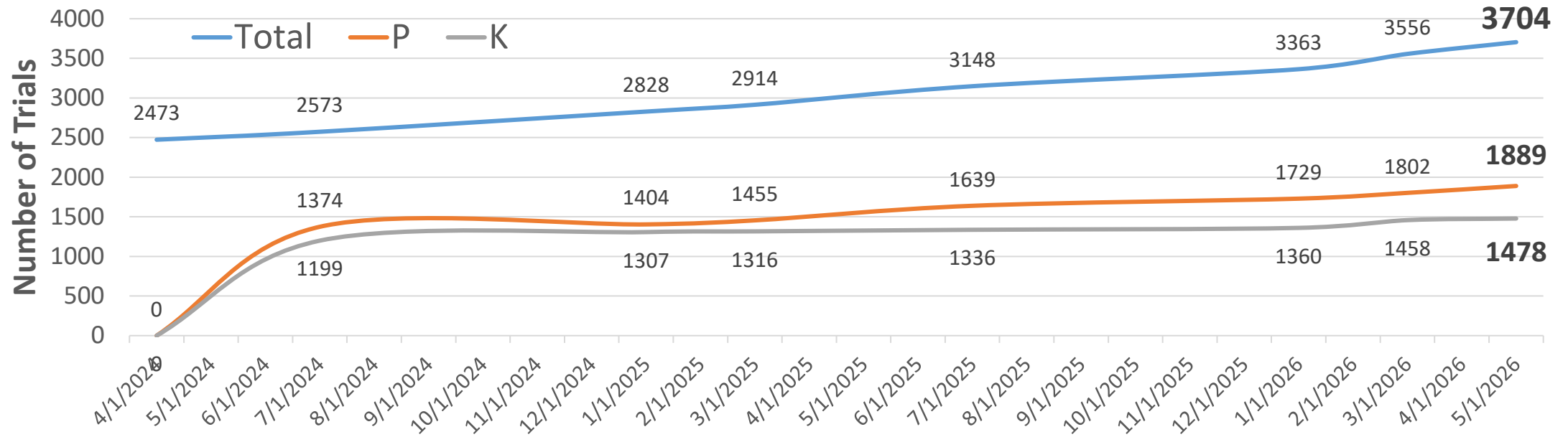
## Mine Datasets

*How to soil sample correlation-calibration research trials*  
*Evaluate scoop density across labs and scoop volumes*

08

## TBD with NRSP11 input

# The FRST National Database Growth



## P Database

- **1,889** observations
- 77% of data from corn & soybean
- 41 states represented

## K Database

- **1,478** observations
- ~74% of data from corn & soybean
- 34 states

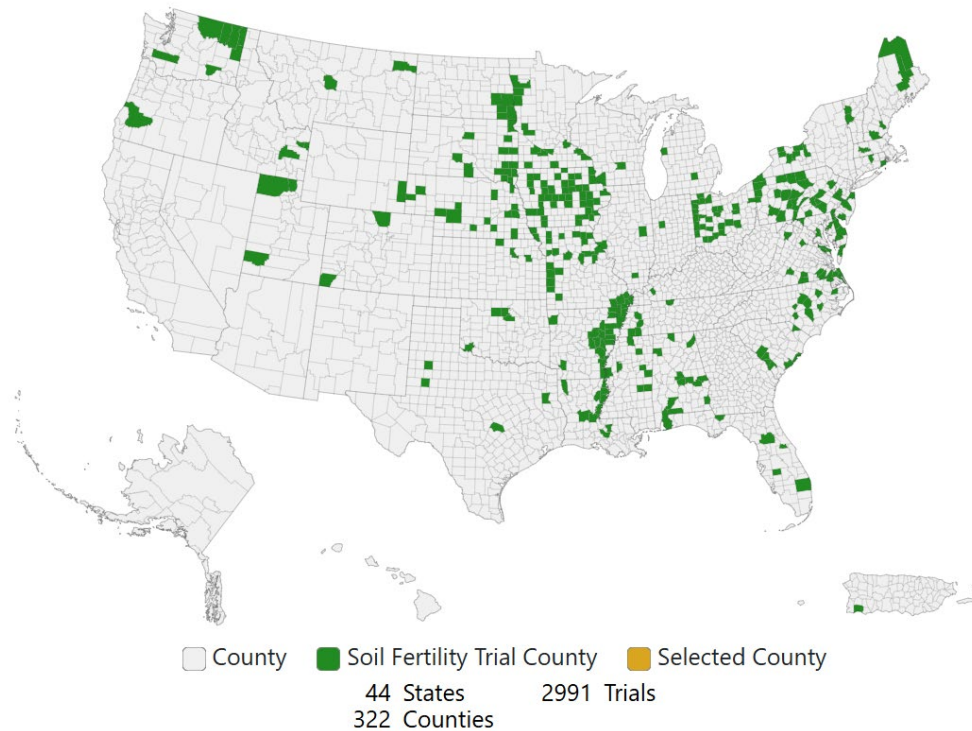
## S Database

- **338** observations
- 90% from corn, soybean & winter wheat
- 14 states

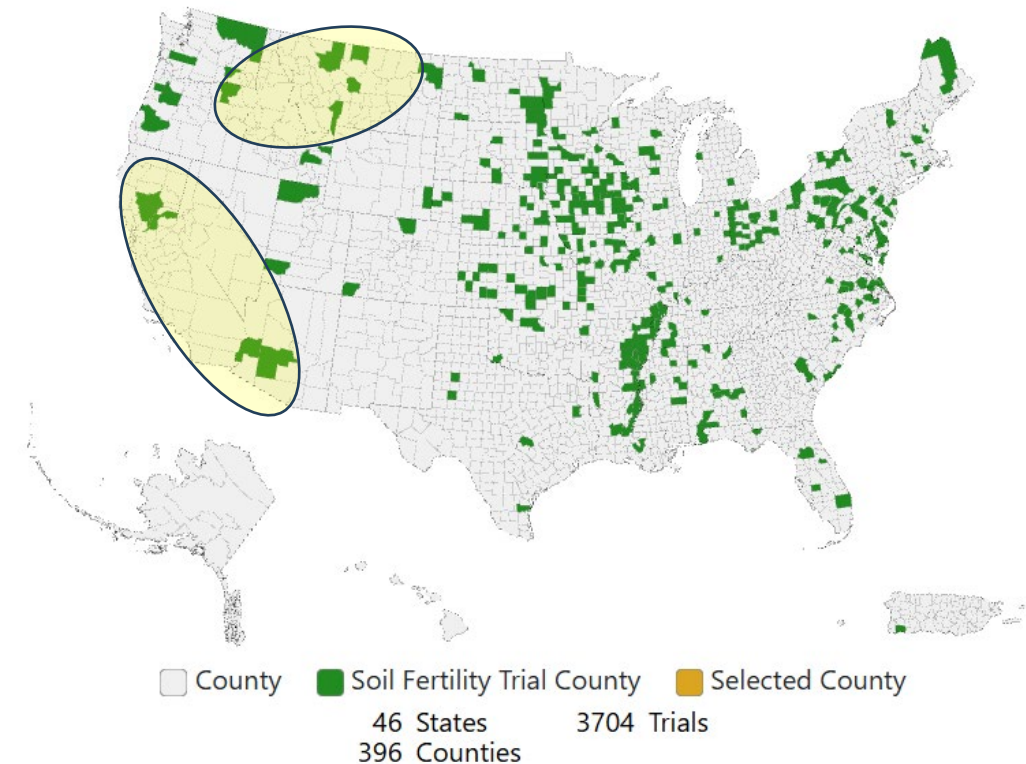
# Data Inventory – 1-year Progress

*Data from 713 field trials added to the national database*

**June 2025**



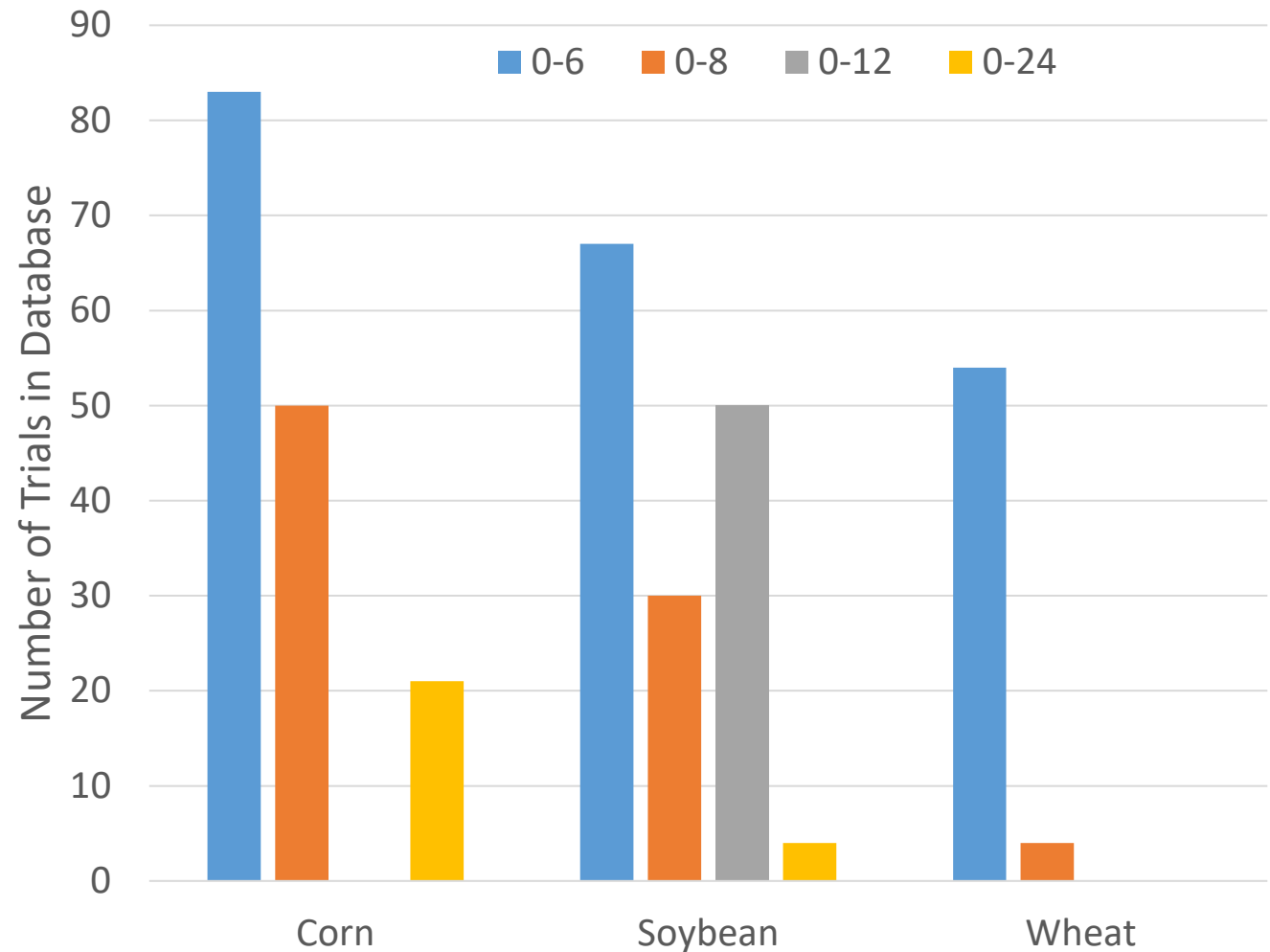
**June 2026**



# Sulfur Overview

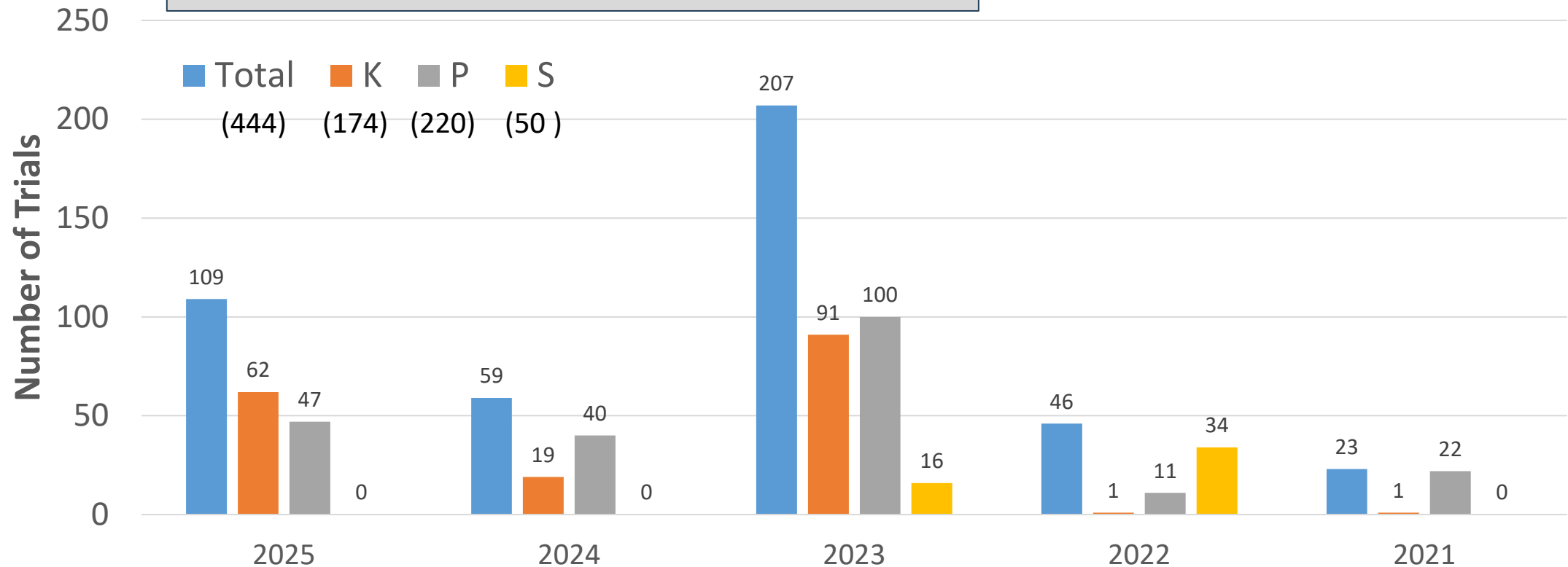
- 338 Trials
  - 14 states & 6 crops
- 4 soil sample depths
  - 0-6, 0-8, 0-12, & 0-24 inches
- Extractants (by Turbidimetry or ICP)
  - Ca-Phosphate
  - Mehlich-3
  - KCl (0.12 & 0.25 *M*)
  - Ammonium Acetate
  - CaCl<sub>2</sub>
- **Sulfur database is not currently interactive.**

Sulfur Trials by Crop & Soil Sample Depth

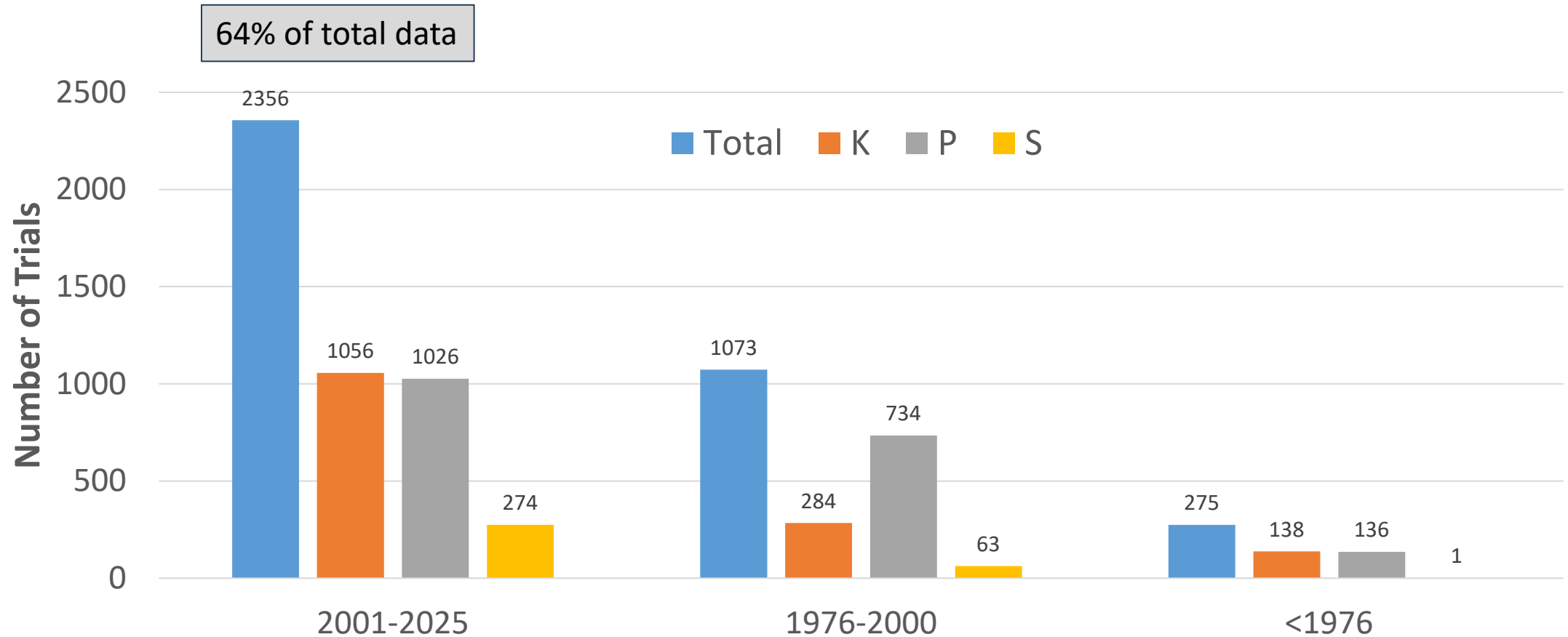


# 5-year Data Summary

12% of total data is from the last 5 years



# 25-year Data Summary (25-year periods)



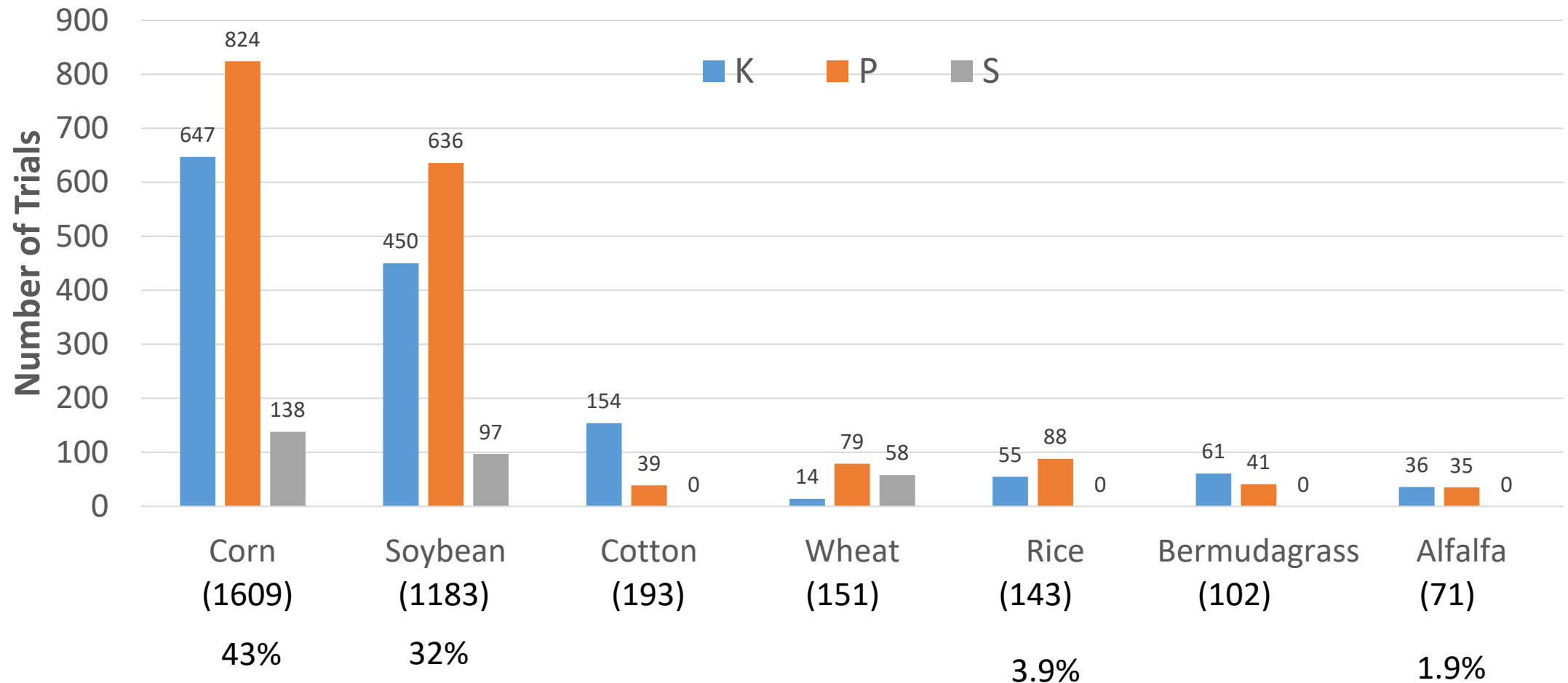
# Crop Inventory



## Fertilizer Recommendation Support Tool



[Home](#) [Tool](#) [Manual](#) [Inventory](#) [Collaborators](#) [Funding](#) [Contact](#) [Privacy](#)



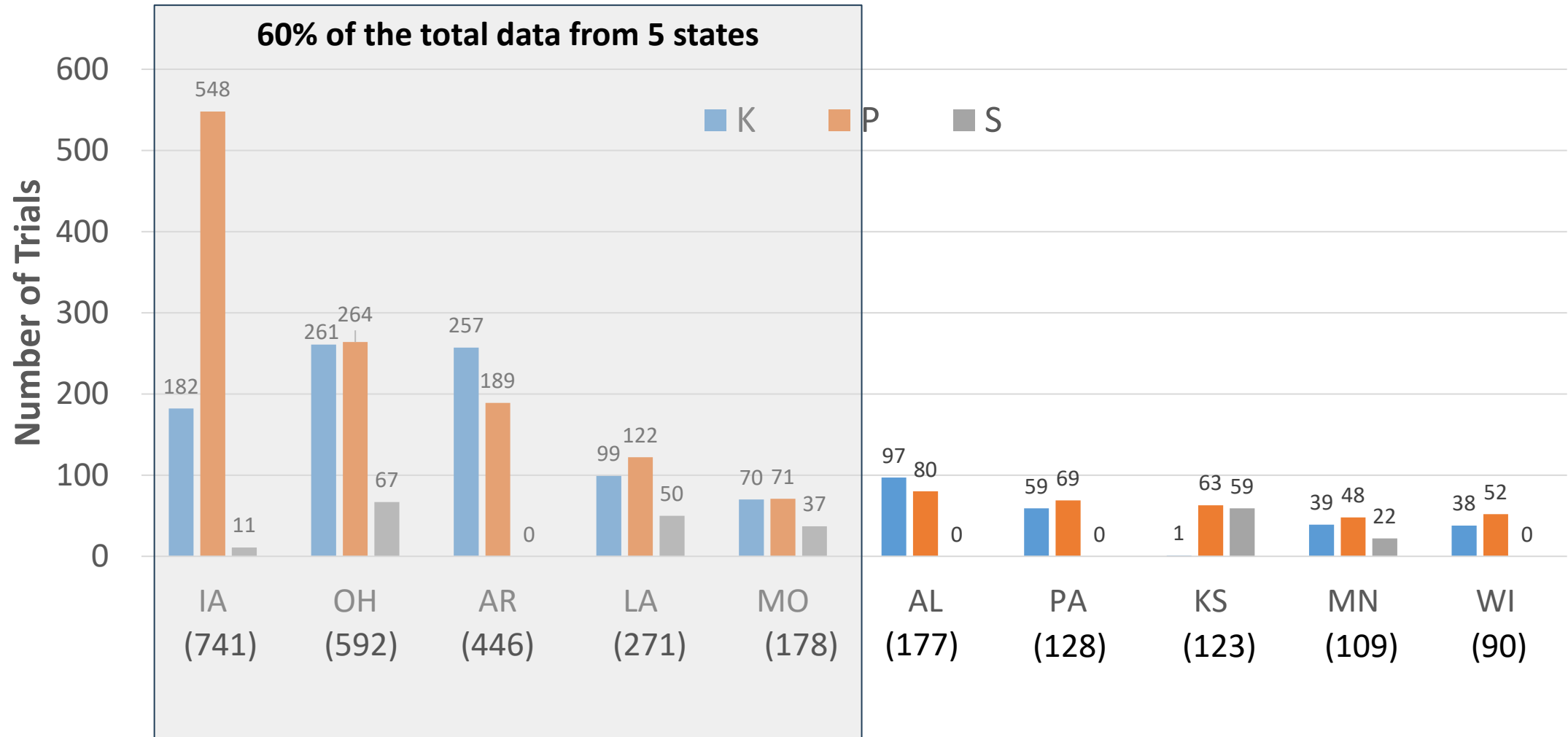
# State Data Inventory



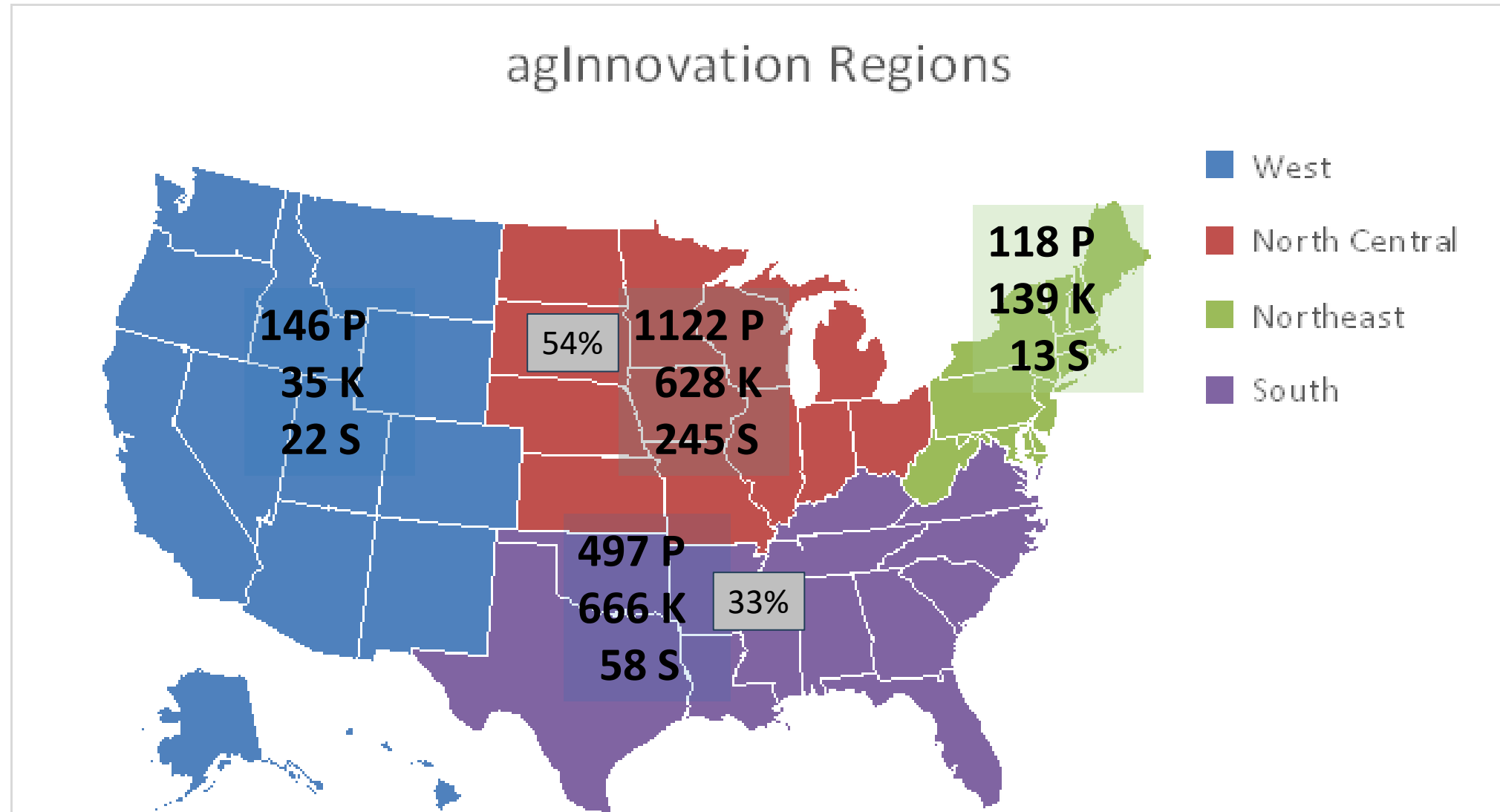
Fertilizer Recommendation  
Support Tool



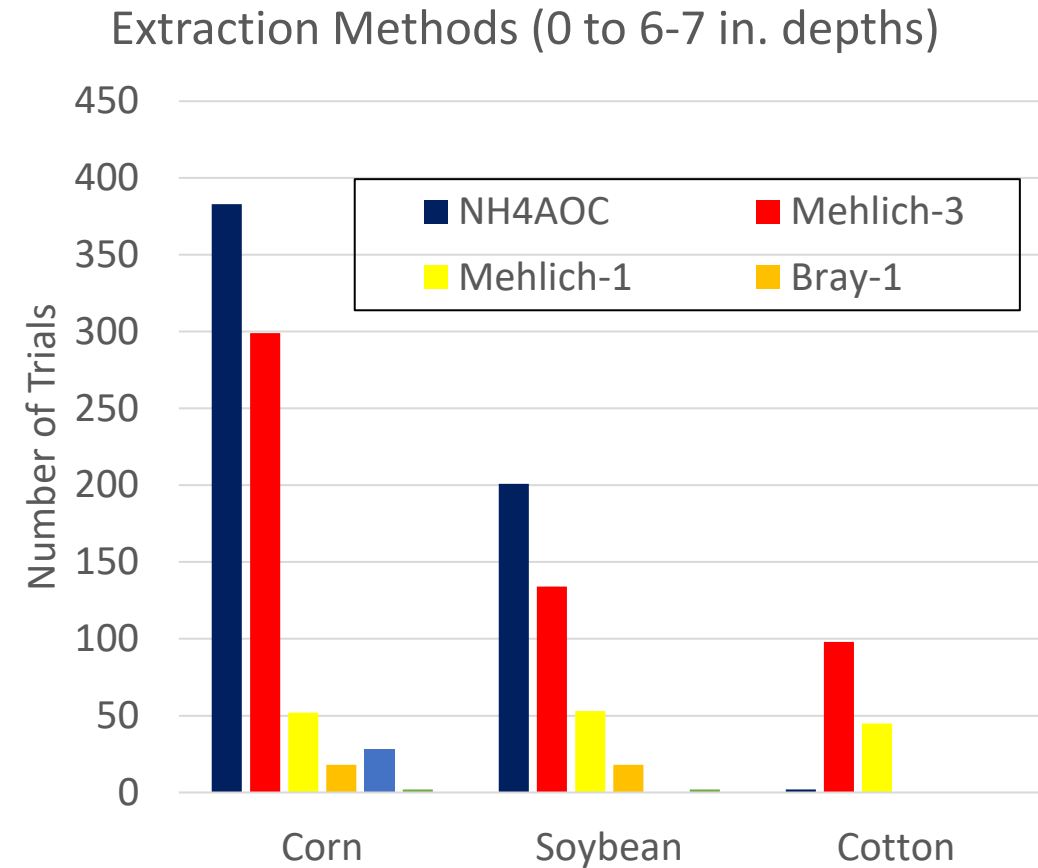
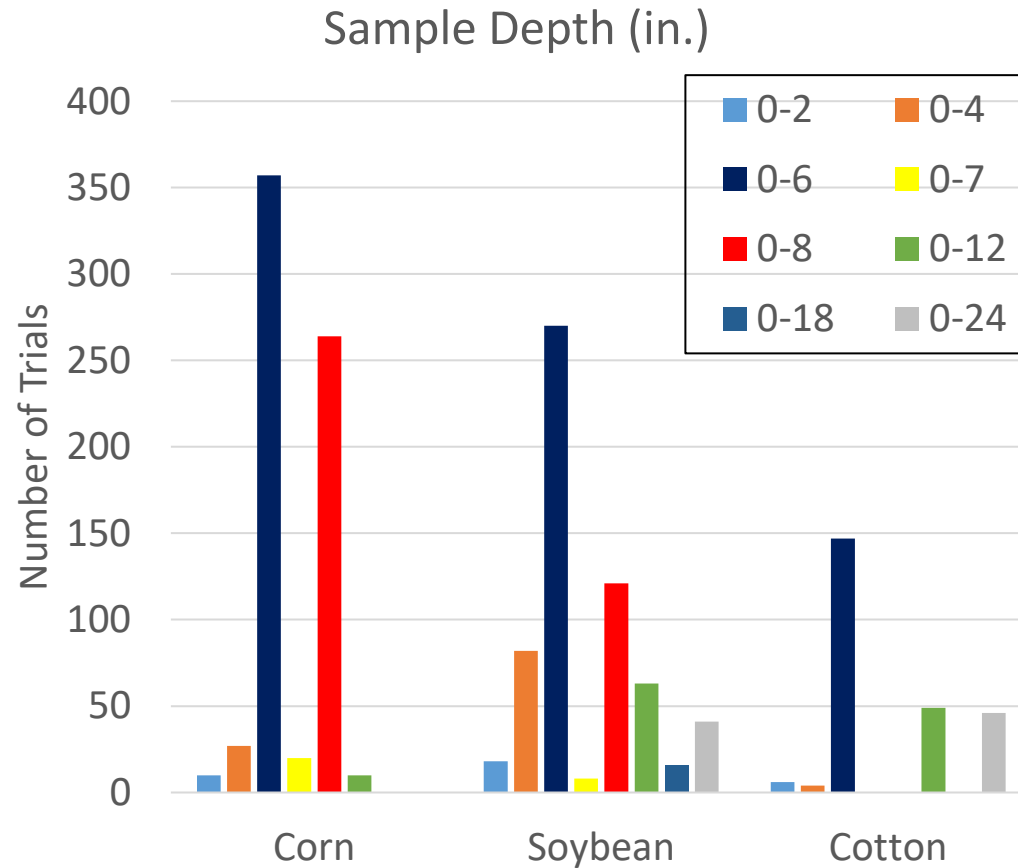
[Home](#) [Tool](#) [Manual](#) [Inventory](#) [Collaborators](#) [Funding](#) [Contact](#) [Privacy](#)



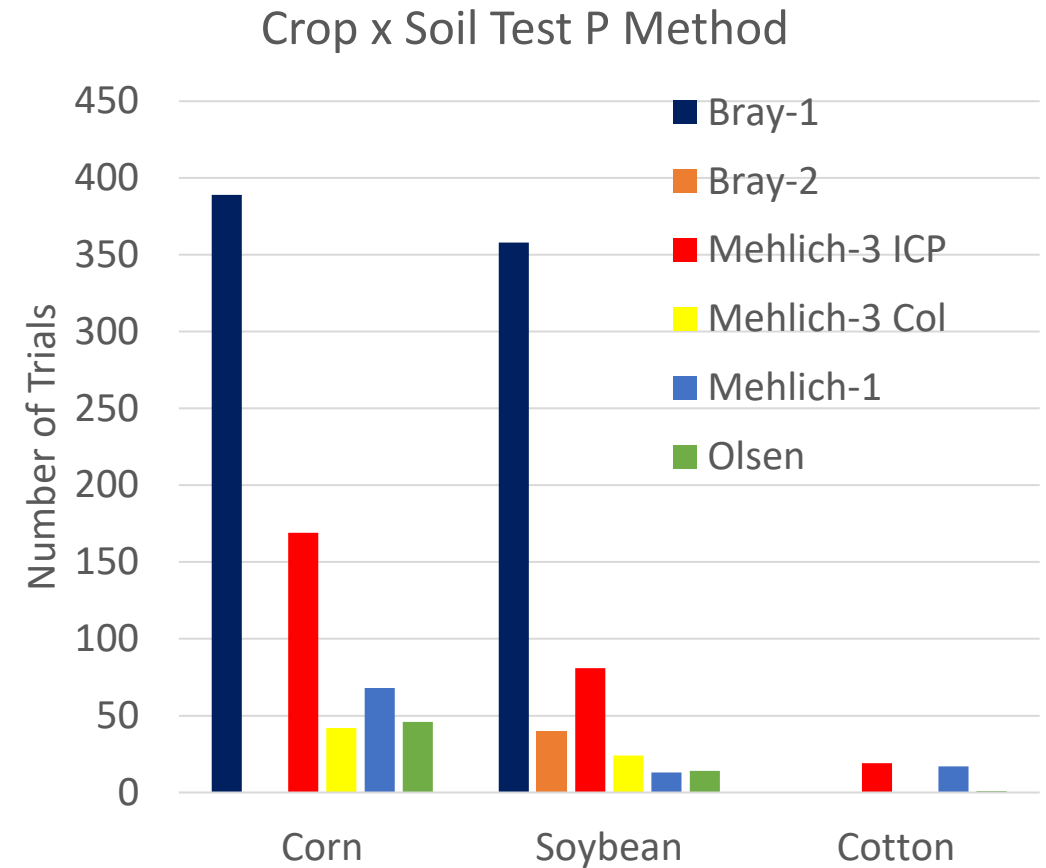
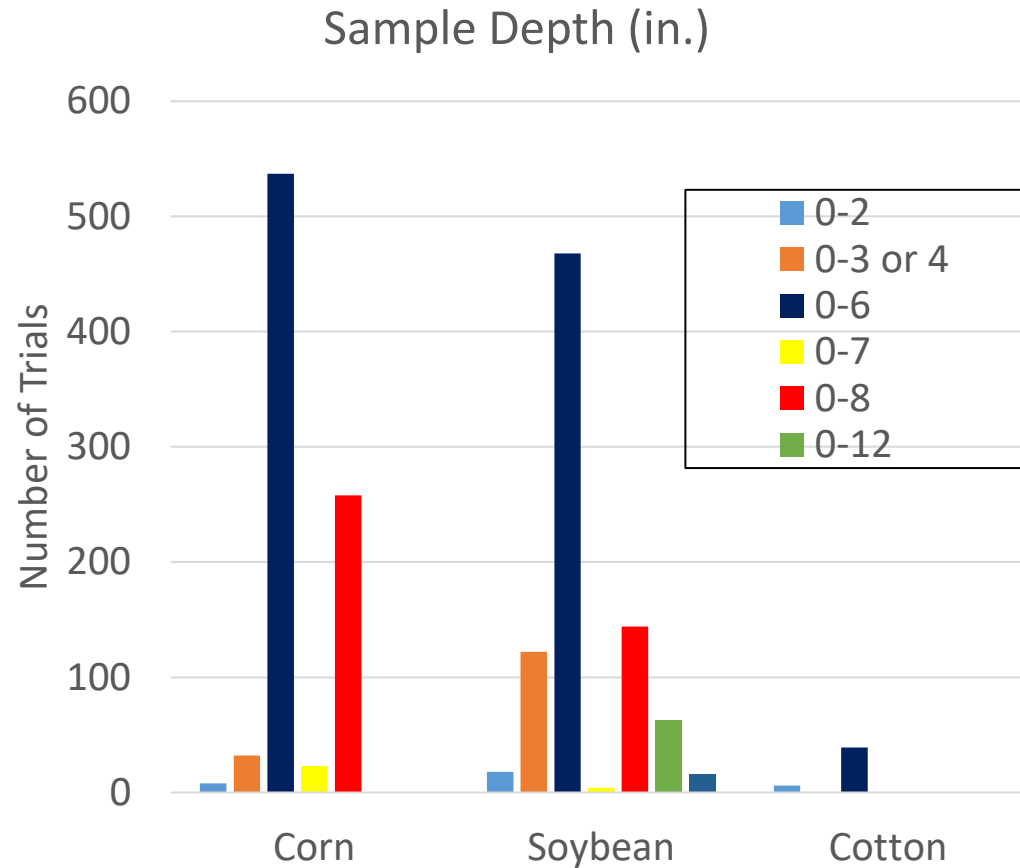
# Data Inventory by Region



# Potassium Sample Depth & Extraction Methods



# Phosphorus Sample Depth & Extraction Methods



# Database – what next?

- NRCS-CIG Regional Project data
  - Ask that it be contributed as it is collected
- More current/ongoing trial data
- Geographic diverse data
  - Need data from all regions, especially the West, the Northeast, & South
- **Data with a complete suite of soil data**
  - Required and recommended data
- With a few exceptions, data contributions must be incentivized
- Publish *Open Access* data file before end of project



**National Agricultural Library**  
U.S. DEPARTMENT OF AGRICULTURE

## National Agricultural Library

The National Agricultural Library (NAL) is one of five national libraries of the United States. It houses one of the world's largest collections devoted to agriculture and its related sciences.



## Online Resources

### AGRICOLA

Search citations from two agricultural science databases: indexed journal articles and the NAL catalog.

[Search the Catalog](#)

### PubAg

Find full-text articles and citations to peer-reviewed journal articles in the agricultural sciences.

[Browse Journal Articles](#)

### Ag Data Commons

Access open data relevant to agricultural research.

[Access Open Data](#)

### Digital Collections

Explore NAL collection materials available in digital format.

[Explore Our Collections](#)

### NALT Concept Space

The National Agricultural Library Thesaurus (NALT) is now a multischeme concept space.

[Browse the NALT](#)

### Invasive Species

Learn about invasive species that threaten the United States.

[Go to invasivespeciesinfo.gov](#)

### Nutrition.gov

Uncover reliable resources on food, healthy eating, physical activity, and food safety.

[Find Nutrition Info](#)

### LCA Commons

Find Federal life cycle assessment data, research, and information systems.

[Access Data Repositories](#)

# Webpage & Decision Aid (Google Analytics)

## FRST Webpage Performance

**74,000+**

Events

**9,700+**

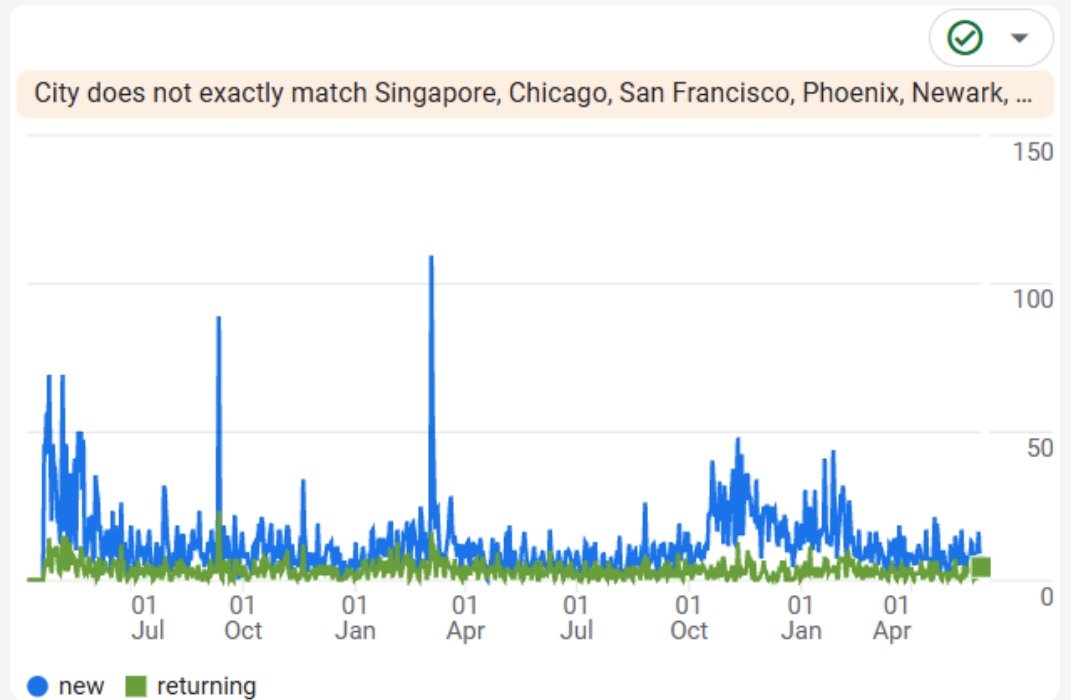
Users

**136**

Countries

- Since 8 April 2024, the FRST webpage has logged **74,000+ events** from **9,700+ users** across **136 countries**
  - ~10 known data hub engagements removed
- **48.2%** average engagement rate
- **51 seconds** average engagement time
- **13,000 views** of the decision support tool

## Traffic & Usage Trends



# NRSP11 Impact

## Community of Practice

**161**

Authorship Opportunities

**67**

Unique Authors

**203**

Citations

- Collaborative research is impacting the careers of scientists with **161 authorship opportunities**
- **67 unique authors** on 2 published datasets and 11 peer-reviewed journal papers
- **11** peer-reviewed journal publications with **200 collective citations**
- 2 data publications **with 6 citations**, 846 downloads, and 2600+ views.
- **SSSAJ Top 10 cited** paper in 2024
- **5 symposia** hosted & monthly collaborator meetings

7/27/2026

## Agronomy Journal



ORIGINAL ARTICLE |  Open Access |  

### Stakeholder perspectives on soil-test-based phosphorus and potassium fertilization in US agriculture

[Megan A. Bourns](#) ✉, [Deanna L. Osmond](#), [Nathan A. Slaton](#), [John T. Spargo](#), [Luke Gatiboni](#), [Corey Lacey](#), [Dustin Sawyer](#), [Matt A. Yost](#)

First published: 22 April 2026 | <https://doi.org/10.1002/agj2.70379> | [VIEW METRICS](#)

## Soil Science Society of America Journal



REVIEW |  Open Access |  

### Assessment of soil pH and lime requirement methods and recommended lime rates for six reference soils across US land grant institutions

[John D. Jones](#), [Robert O. Miller](#), [John T. Spargo](#), [Frank J. Sikora](#), [Manbir K. Rakkar](#), [Nathan A. Slaton](#) ✉, [Deanna L. Osmond](#)

First published: 05 September 2025 | <https://doi.org/10.1002/saj2.70116> | [VIEW METRICS](#)

# NRSP11 Impact

Stakeholder Engagement with Soil Testing: Practices and perspectives in U.S. agriculture

> <https://doi.org/10.15482/USDA.ADC/29656808>

Cite Download all (491.03 kB) Share Embed + Collect

Dataset posted on 2025-08-21, 16:37 authored by [Megan Bourne](#), Deanna L. Osmond, Nathan A. Slaton, John T. Spargo, Luke Gatiboni, [Corey G Lacey](#), Dustin Sawyer, Matt Yost

USAGE METRICS

|              |                  |                |
|--------------|------------------|----------------|
| 399<br>views | 385<br>downloads | 1<br>citations |
|--------------|------------------|----------------|

A Survey to Evaluate the Current Status of Land Grant University and State Department of Agriculture Soil Fertility Recommendations and Analytical Methods

<https://doi.org/10.15482/USDA.ADC/1526506>

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Dataset posted on 2024-02-13, 10:08 authored by John T. [Spargo](#), Sarah E. Lyons, Jason D. Clark, Deanna L. Osmond, Rasel Md. Parvej, Austin W. Pearce, Nathan A. Slaton, Dianne Saffire, Shannon Alford, Tracy Allen, Brian Arnall, Tom Buob, James J. Camberato, Grant Cardon, Steven W. Culman, Joan R. Davenport, Fabian G. Fernandez, Robert Florence, Robert Flynn, David Franzen, Daniel Geisseler, John Grove, David Hardy, Joseph Heckman, Bryan Hopkins, Bruce Hoskins, Nguyen V. Hue, Gobena Huluka, Clain Jones, Keri Jones, Daniel E. Kaiser, Brian Kalmbach, Quirine M.

USAGE METRICS

|                |                  |                |
|----------------|------------------|----------------|
| 2,184<br>VIEWS | 412<br>DOWNLOADS | 5<br>CITATIONS |
|----------------|------------------|----------------|

Correlation and Calibration of Soil-Test Phosphorus Concentrations from Different Soil Depths with Soybean Yield

> <https://doi.org/10.15482/USDA.ADC/28267592>

Cite Download all (833.38 kB) Share Embed + Collect

Dataset posted on 2025-01-31, 17:16 authored by [Md Rasel Parvej](#), Josh Copes, Syam Dodla, Peters Egbedi, Brenda Tubana, David Moseley, Md. Moklasur Rahman

Correlation and Calibration of Soil-Test Phosphorus Concentrations from Different Soil Depths with Soybean Yield

Md. Rasel [Parvej](#)\*, Josh Copes, Syam Dodla, Peters Egbedi, Brenda Tubana, David Moseley, and Md. Moklasur Rahman

USAGE METRICS

|              |                  |                |
|--------------|------------------|----------------|
| 953<br>VIEWS | 311<br>DOWNLOADS | 0<br>CITATIONS |
|--------------|------------------|----------------|

[Learn more about usage metrics](#)

CATEGORIES

## Advance Innovative and Data-Driven Nutrient Management & Strengthen Stakeholder Capacity

- Archiving soil test correlation & calibration data in the national database and lime calibration data for **100+ soils** will impact P, K, and lime rate recommendations for individual states and for public and private agricultural laboratories and private industry involved in nutrient management
- Research on relative yield, modeling CSTV and calibration data, defining the minimum dataset, and ongoing work on how to soil sample soil test correlation trials will guide research for the next generation of scientists

# What's Ahead for 2026–2027

## Database

- Increase national database to >4,000 trials
- Incorporate data from SE, NE, and NC CIG projects
- Assemble ~100 site-year Corn & Mehlich-3 P dataset with complete routine soil test data and corn yield data

## Publications & Data

- Publish 2–3 datasets (OCP-NA, lime calibration, & soil depth)
- Publish 2–4 papers in peer-reviewed journals (lime source, modeling P & K calibration, & lime calibration)
- Draft 1–3 papers on other FRST activities (scoop density, soil sampling strategy, modeling probability data, etc.)

## Decision Aid

- Launch FRST Decision Aid that includes S
- Add calibration component to the FRST Decision Aid

## Outreach & Funding

- Presentations at 2026 SWCS and CANVAS 2026
- NIFA Grant – pending decision
- NRCS CIG, NOFO just released

# Next Generation Recommendations

- **Archiving soil test correlation & calibration data lays the foundation for the next generation of fertilizer-P and -K recommendations.**
  - Standardizes decades of legacy/new field-trial data into an accessible dataset
- Modernizes correlation & calibration modeling, moving P and K guidance beyond aging state recommendations toward harmonized, ROI-aware decisions.
- This data-engineering groundwork is the prerequisite that makes advanced modeling with geographic, soil, crop, soil test data, climatic, etc. data/metadata, and future AI-driven recommendations **possible**.

## #1 BIGGEST AI DRIVER: BEFORE AI CAN BE LEVERAGED, GOOD DATA ENGINEERING HAS TO COME FIRST

With all those prior cases listed on unsuccessful AI pilots, the biggest impact on AI is going to be unique data sets organized and managed in a way that AI can maximize corporate intelligence to drive subject matter expertise based interactions with end users to maximize the use of the models.

Dan Maycock, co-founder and CTO of Dataplai  
[Beyond the Basics: Putting AI to Real Work in Agriculture](#) | [AI at Work in Agriculture, Session 1](#)

# Sign up for NRSP11


nsleton@uark.edu Account Log Out

Dashboard
Projects
Project Proposals
Participants
In Process
View Participants
Invite Participants
Contact Participants
Draft/Edit Particip. Info
Approve Participants
Meetings/Reports
Impact Statements
Reviews
Directory
Account

## Create New Participation Form/Appendix E

Project Number:

**Note:** Please enter a project number or parts of a project name in the text box below and then select a specific project from the list provided.

User:

**Note:** Please enter the first name of the user you would like to assign in the text box below and then select a specific user from the list provided.

☐ Official Representative(?)

### Objectives

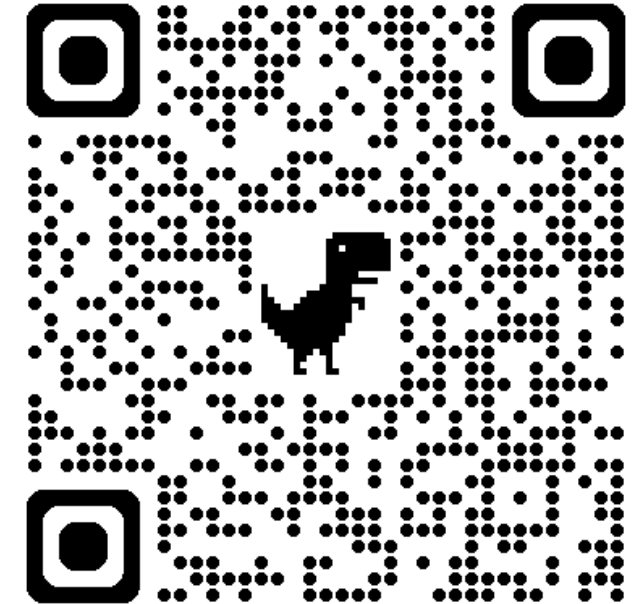
Select a project above to choose objectives.

Research

**Note:** AES participants are required to provide at least one complete row of KA, SOI, and FOS. All other participants are strongly encouraged to do so as well.

| KA - Knowledge Area (Find CRIS Code) | SOI - Subject of Investigation (Find SOI Code) | FOS - Field of Science (Find FOS Code) |
|--------------------------------------|------------------------------------------------|----------------------------------------|
| <input type="text"/>                 | <input type="text"/>                           | <input type="text"/>                   |

Research Commitments (optional)



# FRST Team + Collaborators

|                          |                                 |                           |                                  |                          |                                 |                        |                              |
|--------------------------|---------------------------------|---------------------------|----------------------------------|--------------------------|---------------------------------|------------------------|------------------------------|
| <b>Daniel Adamson</b>    | University of Wyoming           | <b>Patrick Freeze</b>     | Ward Laboratories                | <b>Krishna Maruvada</b>  | <b>Phospholutions</b>           | <b>Amir Sadeghpour</b> | Southern Illinois University |
| <b>Nutifafa Adotey</b>   | University of Tennessee         | <b>Luke Gatiboni</b>      | North Carolina State University  | <b>Andrew Margenot</b>   | University of Illinois          | <b>Dustin Sawyer</b>   | Rock River Lab               |
| <b>Shannon Alford</b>    | Clemson University              | <b>Ted Gauthier</b>       | LSU AgCenter                     | <b>Emma Matcham</b>      | Ohio State University           | <b>Lakesh Sharma</b>   | University of Florida        |
| <b>Brian Arnall</b>      | Oklahoma State University       | <b>Daniel Geisseler</b>   | University of California – Davis | <b>Renuka Mathur</b>     | University of New Hampshire     | <b>Kurt Shroeder</b>   | University of Idaho          |
| <b>Dana Ashford</b>      | USDA-NRCS                       | <b>Brady Goettl</b>       | North Dakota State University    | <b>Marshall McDaniel</b> | Iowa State University           | <b>Hardeep Singh</b>   | University of Florida        |
| <b>Frank Bai</b>         | North Carolina State University | <b>John Grove</b>         | University of Kentucky           | <b>Josh McGrath</b>      | USDA-ARS                        | <b>Rajveer Singh</b>   | University of Arkansas       |
| <b>Chris Bandura</b>     | University of Wisconsin         | <b>Huijie Gan</b>         | Virginia Tech University         | <b>Fernando Miguez</b>   | Iowa State University           | <b>Henry Sintem</b>    | University of Georgia        |
| <b>Alan Blaylock</b>     | Nutrien                         | <b>David Hardy</b>        | NCDA&CS                          | <b>Robert Miller</b>     | ALP                             | <b>Nathan Slaton</b>   | University of Arkansas       |
| <b>Carl Bolster</b>      | USDA-ARS                        | <b>Daren Harmel</b>       | USDA-ARS                         | <b>Grace Miner</b>       | USDA-ARS                        | <b>Joao Souza</b>      | Montana State University     |
| <b>Megan Bourns</b>      | Purdue University               | <b>Joseph Heckman</b>     | Rutgers University               | Toshi Mizuta             | University of Kentucky          | <b>Jared Spackman</b>  | University of Idaho          |
| <b>Sylvie Brouder</b>    | Purdue University               | <b>Andrew Hoiberg</b>     | Calcium Products                 | <b>Amber Moore</b>       | Oregon State University         | <b>Carissa Spencer</b> | USDA-FSA                     |
| <b>Tom Bruulsema</b>     | IPNI-Canada                     | <b>Austin Hopkins</b>     | Rocky Mountain Agronomics        | <b>Ayman Mostafa</b>     | University of Arizona           | <b>Juan Solomon</b>    | University of Nevada, Reno   |
| <b>Greg Buol</b>         | North Carolina State University | <b>Bryan Hopkins</b>      | Brigham Young University         | <b>Joshua Mott</b>       | Virginia Tech University        | <b>David Sotomayor</b> | University of Puerto Rico    |
| <b>Miguel Cabrera</b>    | University of Georgia           | <b>Glenn Howell</b>       | Calcium Products                 | <b>Jake Mowrer</b>       | Texas A&M University            | <b>John Spargo</b>     | Penn State University        |
| <b>Daniela Carrijo</b>   | Penn State University           | <b>Javed Iqbal</b>        | University of Nebraska           | <b>Stephanie Murphy</b>  | Rutgers University              | <b>Kurt Steinke</b>    | Michigan State University    |
| <b>Ignacio Ciampitti</b> | Purdue University               | <b>Sindhu Jagadamma</b>   | University of Tennessee          | <b>Rao Mylavarapu</b>    | University of Florida           | <b>Haiying Tao</b>     | University of Connecticut    |
| <b>Bee Chim</b>          | Oklahoma State University       | <b>Brad Joern</b>         | Precision Planting               | <b>Kelly Nelson</b>      | University of Missouri          | <b>David Tarkalson</b> | USDA-ARS                     |
| <b>Chris Clark</b>       | University of Wisconsin         | <b>Clain Jones</b>        | Montana State University         | <b>Nathan Nelson</b>     | Kansas State University         | <b>Gurpal Toor</b>     | University of Maryland       |
| <b>Jason Clark</b>       | South Dakota State University   | <b>John Jones</b>         | University of Illinois           | <b>Shannon Nelson</b>    | Brigham Young University        | <b>Wilma Trujillo</b>  | Colorado State University    |
| <b>Adrian Correndo</b>   | University of Guelph            | <b>Daniel Kaiser</b>      | University of Minnesota          | <b>Leanna Nigon</b>      | The Fertilizer Institute        | <b>Teferi Tsegaye</b>  | USDA-ARS                     |
| <b>Steve Culman</b>      | Oregon State University         | <b>Gurpreet Kaur</b>      | University of Missouri           | <b>Deanna Osmond*</b>    | North Carolina State University | <b>Jeff Volenec</b>    | Purdue University            |
| <b>Leo Deiss</b>         | Ohio State University           | <b>Quirine Ketterings</b> | Cornell University               | <b>Rasel Parvej</b>      | University of Missouri          | <b>Forbes Walker</b>   | University of Tennessee      |
| <b>Jagman Dhillon</b>    | Mississippi State University    | <b>Gene Kim</b>           | USDA-NRCS                        | <b>Austin Pearce</b>     | Field to Market                 | <b>Jim Wang</b>        | LSU AgCenter                 |
| <b>Gerson Drescher</b>   | University of Arkansas          | <b>David Kissel*</b>      | University of Georgia            | <b>E. Pena-Yewtukhiw</b> | Univ. of West Virginia          | <b>Nick Ward</b>       | Ward Laboratories            |
| <b>Don Edralin</b>       | NCDA&CS                         | <b>Pete Kleinman</b>      | USDA-ARS                         | <b>Steve Philips</b>     | Oklahoma State University       | <b>Charles White</b>   | Penn State University        |
| <b>Josh Enderson</b>     | Calium Products                 | <b>John Kovar</b>         | USDA-ARS                         | <b>Rishi Prasad</b>      | Auburn University               | <b>Stephen Wood</b>    | The Nature Conservancy       |
| <b>Bhupinder Farmaha</b> | Clemson University              | <b>Greg LaBarge</b>       | Ohio State University            | <b>Tony Provin</b>       | Texas A&M University            | <b>Frank Yin</b>       | University of Tennessee      |
| <b>Joshua Faulkner</b>   | University of Vermont           | <b>Gabe LaHue</b>         | Washington State University      | <b>Manbir Rakkar</b>     | Ohio State University           | <b>Matt Yost</b>       | Utah State University        |
| <b>Fabian Fernandez</b>  | University of Minnesota         | <b>Corey Lacey</b>        | Illinois Soybean Association     | <b>Vaughn Reed</b>       | Mississippi State University    | <b>Amy Shober</b>      | University of Delaware       |
| <b>John Filippi</b>      | North Carolina State University | <b>Jay Lessl</b>          | University of Georgia            | <b>Mark Reiter</b>       | Virginia Tech University        | <b>Frank Sikora*</b>   | University of Kentucky       |
| <b>Bronc Finch</b>       | University of Arkansas          | <b>Steve Levitsky</b>     | Phospholutions                   | <b>Edwin Ritchey</b>     | University of Kentucky          | <b>Gurbir Singh</b>    | University of Missouri       |
| <b>Robert Florence</b>   | University of Tennessee         | <b>Sarah Lyons</b>        | FFAR                             | <b>Matthew Ruark</b>     | University of Wisconsin         |                        |                              |
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