

4R Research Fund Repository

Creating a space to bring together all current 4R Fund research projects

Dr. Sylvie Brouder, Department of Agronomy, Purdue University

Project dates: January 2015 – ongoing

Project Number: 4RN-45

Online Repository: <https://purr.purdue.edu>

Collaborators: Jeff Volenec, Department of Agronomy, Purdue University



Research Fund

PROJECT GOALS

4R Create a data repository for projects funded through the 4R Fund to ensure that data stored meets the needs of future research requirements for analysis of general responses to 4R management.

4R Outline standards for agronomic research for data collection and storage.

RESULTS

The 4R research repository will allow bigger questions to be answered from a bunch of little studies and makes the science transparent to anybody who wants to look at it.

4R Initially the Purdue University Research Repository will hold the 4R Fund Research Repository. Purdue has hired an individual to develop and implement the data processing protocols for use of the repository and a tool kit for users.

4R Work will continue developing the standards and best practices for agronomic researchers.



sbrouder@purdue.edu

MEET SYLVIE

"Using nutrients wisely for profitability and environmental stewardship has been the overarching theme of my career as a land-grant university researcher, extension specialist, teacher, and life-long learner."

Sylvie's project is not a typical 4R project in that she is trying to build infrastructure for research data to make science more useful, particularly to farmers and industry professionals. She understands the importance of data sharing in the development of robust, evidence-based recommendations in medicine and agriculture alike. Referring to herself as a "data hobbyist," she creates infrastructure for nutrient management recommendations that are transparent to the underlying science.

WHAT DO WE DO NEXT?

- Develop standards for data collection and reporting
- Explore the potential for the 4R Research Fund Repository to be made available to all 4R researchers
- Explore other locations to house the Repository

THE 4R PRINCIPLES

4R nutrient stewardship provides a framework to achieve cropping system goals, such as increased production, increased farmer profitability, enhanced environmental protection and improved sustainability.



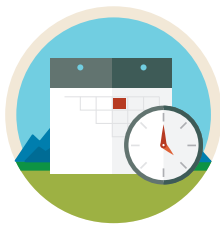
RIGHT SOURCE

Matches fertilizer type to crop needs



RIGHT RATE

Matches amount of fertilizer to crop needs



RIGHT TIME






Make nutrients available when crops need them.



RIGHT PLACE

Place Keeps nutrients where crops can use them.

PROJECT GOALS / RESULTS KEY:

-  RIGHT SOURCE
-  RIGHT RATE
-  RIGHT TIME
-  RIGHT PLACE
-  4R GENERAL / OVERALL