



# Environmental Science Graduate Program Seminar Series

## More Questions than Answers: Farmer Perspectives on Soil Health Data

**Prabhjot Singh**

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**Smith Laboratory, Room 3150**



### Abstract

In recent years, there has been growing interest in soil health among farmers and researchers alike. With this continued interest, it is important for researchers to identify specific soil health indicators that best quantify soil health and share these parameters with farmers. Farmers in the Midwest typically utilize routine nutrient soil tests that mainly consist of chemical indicators of soil fertility, and infrequently have access to biological and physical soil health assessments. Though biological soil health measurements have been well studied, researchers have primarily performed these studies in controlled trials or university plots. Thus, measuring on-farm soil health conditions and further sharing these data with farmers is pertinent. Understanding farmer perceptions of data can queue researchers in directions of farmer interest. Moreover, learning if (and how) farmers may use these data to inform their management can be insightful for future research agendas. To this end, I collaborated with Ohio farmers to investigate how useful biological soil health indicators (i.e. soil protein, soil respiration, active carbon, nematode indices, and enzyme activity) were to farmer decision-making. I found that most farmers were interested in biological soil health information although this interest did not always inspire management changes. Many farmers had follow-up questions or implied barriers to understanding and implementing the new information. From this study, I conclude that simply sharing soil health data with farmers is not enough to invoke changes to farm management systems. In future research, it will be important to make direct connections between various management practices and its impact on soil health indicator values. Further, researchers will be able to develop management recommendations for farmers based on their soil health testing.