Soil Acidity In 2020

Register Online at: farmersnetwork.wsu.edu
January 16, 2020 from 8:00am to 4:00pm at Courtyard Marriott – Pullman, WA

Soil Acidity 101

Worldwide, soil acidification is a major soil health problem limiting crop yield and quality. In the past decade, soil acidification has become a growing concern for dryland crop production in the Pacific Northwest. We will discuss the causes of soil acidification, the effects of soil acidification on soil health and crop yield and quality, and methods of amelioration.

Dr. Haiying Tao – Assistant Professor and Nutrient Management Specialist in the Department of Crops and Soil Sciences: WSU Pullman

Soil acidification of cultivated fields in semiarid Montana: adaptation and challenges to remediation:

Farmers in parts of Montana are experiencing crop growth reductions or complete crop failures as a result of soil acidification and Al toxicity. This presentation will discuss results from recently initiated on-farm trials that include sugar beet lime applications, seed-placed P and cultivar selection; and to discuss some of the challenges to soil acidity remediation in Montana.

Dr. Rick Engel Professor in the Land Resources and Environmental Science Department: Montana State University, Bozeman

Soil pH and Soil Microbes: Cause and Effect

We will discuss how liming affects bacterial communities in the soil, especially those involved in nitrification which produces the low pH. These results are from liming trials in WA, OR and ID. We also describe bacterial communities that are adapted to acid soil layers in direct-seed systems. It is critical to understand the role of soil microbes to develop management strategies for this long term problem of soil acidity.

Dr. Tim Paulitz – USDA-ARS Research Plant Pathologist, Pullman Co-authors: Daniel Schlatter, Chuntao Yin, Christina Hagerty and Kurt Schroeder

Effect of Soil Acidity on Wheat Diseases

Soil acidity directly affects crops, pathogens, and mineral nutrition. Dr. Murray will describe what we know about the effect of soil pH on several soilborne wheat diseases. He will also discuss ways to mitigate the impacts of soil acidity and associated pathogens.

Dr. Tim Murray – Professor and Extension Plant Pathologist: WSU Pullman

This workshop is eligible for 7 CCA credits. -- Please see the Farmers Network website or contact Carol McFarland: carol.mcfarland@wsu.edu or Haiying Tao at haiying.tao@wsu.edu for more information. Register directly at: https://wsufnsoilacidity2020.bpt.me
Long-term Soil Acidification, Obvious and Hidden Dangers
What we know, don’t know, and progress toward managing soil pH.

Dr. Dave Huggins: Research Soil Scientist with USDA-ARS Sustainable Agroecosystems Research Unit

Managing soil acidification in cereal-based cropping systems
This presentation will provide an update on a long-term study in northern Idaho to study the impact of liming on crop performance and changes in soil chemistry. Lime application is costly, but the benefits will be realized over multiple years. This project is just entering its fourth year and a summary of returns on this capital investment will be discussed. In addition to liming research, there will be an update on screening for aluminum tolerance in wheat.

Dr. Kurt Schroeder: Assistant Professor and Cropping Systems Agronomist at University of Idaho, Moscow

The application question
This presentation will discuss addressing the logistics of lime application. Various materials lend themselves to equipment considerations as an important component of any decision to apply lime.

Jim Durfey: Instructor in Department of Crop and Soil Science at WSU, Pullman

Experiencing Acidity:
Palouse Farmers Josh Jones and Seth Millhorn will each share their experience with the legacy of soil acidity on their farms in Eastern Washington and Northern Idaho.

The Effects of Acidic Conditions on Palouse Crops
This session will feature a hands-on activity using live plants to demonstrate the effects of soil acidity on common Palouse crops

A WSU Extension Workshop brought to you by The WSU Farmers Network

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