**W1196: Implementing and correlating soil health management and assessment in western states**

**Second Workgroup Meeting**

**10am-2pm MST 12/14/22 Virtual**

**Meeting Minutes**

1. Welcome and Meeting Objectives (Jim Ippolito and Caley Gasch)

2. Introductions by members (1-2 minutes per person)

Jim Ippolito (CO), Caley Gasch (Univ. AK), John Idowu (NMSU), Dan Liptzin (SHI), Zachary Kayler (Univ. ID), Rebecca Lybrand (UC Davis), Linda van Diepen (UWy), Shannon Cappellazzi (Go Seed, Oregon), Clain Jones (Montana State U.), Frieda Eivazi (Lincoln Univ.), Jodi Johnson-Maynard (Univ. ID), Liana Lynch (Univ. WY), Deirdre Griffin LaHue (Washington State U.), Manbir Rakkar (Mont. State U.), Debankur Sanyal (Univ. AZ), Matt Yost (USU), Steve Blecker (CSU), Tarah Sullivan (WSU), Markus Kleber (OSU), Rob Dungan (USDA-ARS Kimberly, ID).

3. Revisiting: What is a Hatch Project? (Jim Ippolito and Caley Gasch)

The specific purpose of Hatch MRF funding is to conduct research by institutions within a State and by institutions in multiple States to solve problems that concern more than one State.

4. Refresh of the W1196 Objectives

Objectives From NIMMS (<https://www.nimss.org/projects/view/mrp/outline/18847>):

1. Identify best soil health management practices for western US agroecosystems or knowledge gaps that prevent identification.  
   Comments: The premise behind this objective is that, collectively, the soil fertility/soil management/soil health community from the western US region possesses data, published and not, from evaluation of most or all production systems in the region. Specific tasks: i) All multi-state research group members agree upon and then compile data and metadata from studies of soil health across western agroecosystems to facilitate identification of soil health BMPs for western crop/soil/climate scenarios; ii) Implement a coordinated strategy to identify best soil health management and assessment approaches for western production systems.
2. Identify best soil health assessment approaches for western agroecosystems.  
   Comments: The premise behind this objective is that, collectively, the soil fertility/soil management/soil health community from the western US region possesses appropriate knowledge, experience, and data to evaluate proposed soil health indices and recommend minimum data set indicators/methods for western agroecosystems. Specific tasks: i) Facilitate a coordinated regional effort to develop and evaluate soil health indicators using a sound, co-designed scientific approach that results in a minimum data set of indicators for each soil-climate-management system scenario; ii) Assess proposed indicators and lab methods (e.g., USDA-NRCS (Stott, 2019), Soil Health Institute tiers 1 and 2 (2020b), SMAF (Andrews et al., 2004), CASH (Cornell University, 2017) and rate them for suitability in western systems (i.e., conditions of inherently low SOM, salinity, etc.) using published literature, expert opinion, and the database compiled under objective 1. The database will eventually facilitate correlation of soil physical, chemical, and biological indicators and laboratory methods leading towards standardized methods for the western crop/soil/climate scenarios; and iii) create standardization by the multi-state research group with respect to soil health assessment protocol for proficiency testing.

5. Brainstorming Session #1: Accomplishments towards W1196 Objective #1. Where have we been, where are we now, where are we going?

*Where have we been:* Google doc spreadsheets have been created to enter specific soil health data according to researcher, cropping systems/rotations, overarching soil health program followed, indicators collected, and other pertinent information. The document is housed at: <https://docs.google.com/spreadsheets/d/1UuDGPpZdnnR06VZ_6VzVETJsg565ZG2Nrs2x9AnwTXA/edit#gid=133798839>

And, just in case the W1196 group needs additional information, it is presented here:

Working group shared folder: [https://drive.google.com/drive/folders/1IOKyTij0Hmr-DNgRxFPOtuXq6LMpdELE?usp=share\_link](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdrive.google.com%2Fdrive%2Ffolders%2F1IOKyTij0Hmr-DNgRxFPOtuXq6LMpdELE%3Fusp%3Dshare_link&data=05%7C01%7CJim.Ippolito%40colostate.edu%7C06e70c29fd2846bf19b208dade0aae9d%7Cafb58802ff7a4bb1ab21367ff2ecfc8b%7C0%7C0%7C638066434706144396%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=lYsXr9fmSStITRoKAUZjpeggKnrSIJSslzeJ3Dy7dWU%3D&reserved=0)

Survey spreadsheet instructions: [https://docs.google.com/document/d/1vf9OZTL7zQpYh31cJLJKMr3TVuDafhbX97JU421yZXQ/edit?usp=share\_link](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.google.com%2Fdocument%2Fd%2F1vf9OZTL7zQpYh31cJLJKMr3TVuDafhbX97JU421yZXQ%2Fedit%3Fusp%3Dshare_link&data=05%7C01%7CJim.Ippolito%40colostate.edu%7C06e70c29fd2846bf19b208dade0aae9d%7Cafb58802ff7a4bb1ab21367ff2ecfc8b%7C0%7C0%7C638066434706144396%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=bW3YyglZOFv7lCWfTxcxJ2%2B5I2upOkatDOpKEmSv4DA%3D&reserved=0)

Survey spreadsheet: [https://docs.google.com/spreadsheets/d/1UuDGPpZdnnR06VZ\_6VzVETJsg565ZG2Nrs2x9AnwTXA/edit?usp=share\_link](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocs.google.com%2Fspreadsheets%2Fd%2F1UuDGPpZdnnR06VZ_6VzVETJsg565ZG2Nrs2x9AnwTXA%2Fedit%3Fusp%3Dshare_link&data=05%7C01%7CJim.Ippolito%40colostate.edu%7C06e70c29fd2846bf19b208dade0aae9d%7Cafb58802ff7a4bb1ab21367ff2ecfc8b%7C0%7C0%7C638066434706144396%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=WCboqXO4o37YONk4oyTVc0xnwXu%2BeBJ%2BkiyOvUFMEAw%3D&reserved=0)

*Where are we now:*  We need all W1196 members to fill in these documents. Jim Ippolito made a hard deadline of January 31, 2023, for all members to fill in the documents.

*Where are we going?:*  After January 31, 2023, Jim and Caley will reconvene to look over the document and, if needed, ask for more information to be entered from individuals. We agreed to send out a Doodle poll to meet again in February or March 2023 to revisit the Google doc and decide a path forward in order to complete Objective #1. We anticipate that the spreadsheet will serve as a starting point to begin organizing sub-groups to tackle objective 1 (creation of a soil health database for western states).

6. Brainstorming Session #2: Accomplishments towards W1196 Objective #2. Where have we been, where are we now, where are we going?

Objective #1 needs to be complete prior to starting objective #2. We therefore have made no progress towards completing objective #2.

We did, however, have a discussion on meeting face to face, with members in favor of doing so. We discussed meeting at the ASA-CSSA-SSSA conference or in person at our respective locations in the Western US. We also discussed meeting face to face in conjunction with holding a field tour focused on soil health principles/practices. We did not come to an overall consensus and will revisit this topic in 2023.

We also discussed holding a Western US soil health conference, likely virtual. We also discussed piggy-backing onto a yearly soil health conference in the state of Washington (SoilCon). This topic needs further group discussion, but it appeared that most members were in favor of holding a conference on behalf of W1196.

7. Brief Review of W1196 five year milestones – can we stay on track?

We are completing year 1 of our project. We feel we can stay on track in terms of meeting our five-year milestones of completing both objectives.

8. Discuss reconvening in early April to discuss progress/additional brainstorming if required.

We discussed meeting in February or March 2023 to discuss progress on completing the soil health spreadsheets our team has created.

9. General discussion/items from the floor.

Annual reporting was discussed. Jim Ippolito will distribute a template to all state representatives, collect all data, and complete the annual report.

10. Adjourn.

The meeting was adjourned at 12:30pm MST.