



March 28, 2016

Dean Michael Parrella
College of Agriculture and Life Sciences
University of Idaho
Moscow, ID

RE: IGEM Proposal: University of Idaho Soil Health Program

The Idaho Wheat Commission (IWC) and the Idaho Grain Producers Association (IGPA) strongly support the establishment of a Soil Health Program at the University of Idaho, leveraging expertise reaching across colleges and disciplines. Several intractable soil based problems limit wheat production in Idaho such as soil acidity, wireworm, soil structure, organic matter, pests and microbes. The soil biome also holds the potential of solutions to these problems once the biome and its inhabitants are well characterized and their interactions understood.

Idaho wheat producers identified wireworm as one of the most difficult pests to control, since effective but environmentally hazardous chemical controls were taken off the market in 2006. The lack of effective control has allowed wireworm populations to become a significant issue for wheat and many other species including potato. Wheat producer assessment dollars have been invested in research projects aimed at finding a sustainable integrated approach to control of wireworm. There are at least eight species of wireworm representing five different genera in Idaho soils. Species specific information on distribution across different soil types, population numbers, lifecycle, feeding patterns, interaction with other soil microbes and insects, and natural pathogens of each species is necessary to develop a truly sustainable and integrated approach to control.

The Soil Health Program can tap a wide range of expertise across the university to create a complete picture of the wireworm issue and guide development of control measures that are effective, environmentally sound and integrated with production practices. It can also work to develop control measures directed at other soil based insects and pests.

Idaho wheat producers recognize that as consumers pressure retailers to conform and report the sustainability footprint of their products, producers of raw ingredients will have to participate in developing and adopting sustainable production practices while remaining profitable. This is not any easy balance to strike, but it is a necessity for the survival of Idaho agriculture.

For these reasons, the Idaho Wheat Commission and the Idaho Grain Producers Association strongly support funding a Soil Health Program at the University of Idaho. We believe the


economic impact of such a program to cereals production and all other crops in Idaho makes this program an exceptional candidate for support from the IGEM funding pool.

Idaho crops are estimated to account for 3.1 billion in revenue in 2015. Crop production depends on sunlight, water and soil. Soil health and understanding the soil biome in all its intricacies is the next frontier of crop production science. Knowledge of soil health and plant soil interactions will allow radical increases in productivity with less available land, water, chemical fertilizers, and fewer chemical controls for pests and disease. It is not sensationalism to say the future of the world and of Idaho agriculture depends on this research.

Sincerely,

A handwritten signature in black ink, appearing to read "Blaine Jacobson", with a long horizontal flourish extending to the right.

Blaine Jacobson
Executive Director
Idaho Wheat Commission

A handwritten signature in black ink, appearing to read "Stacey Satterlee", with a long horizontal flourish extending to the right.

Stacey Satterlee
Executive Director
Idaho Grain Producers Association