

# Vandal Explorer Series: A Lookout for Plant Diseases

## Student Plant Pathologist Tests Idaho Fields for Soil-Borne Diseases



### Fighting Soil Pathogens

Watch master's student Lara Brown keep an eye out for soil-borne diseases in bean and cereal fields.

Soil-borne plant pathogens can drastically reduce yields for crops like wheat, barley, beans, sugar beet and potatoes. Complete crop loss is possible although yield losses in the range of 10-30% are more common. Based out of University of Idaho's [Parma Research and Extension Center](#), Lara Brown traveled from field to field during summer 2020 to look for signs of soil-borne diseases as part of her master's work. Prior to planting, Brown collected soil samples from fields across northern Idaho, eastern Idaho, the Treasure Valley and the Magic Valley and later returned to collect samples of cereals and dry beans. She compared the presence of harmful fungi found in the soil to the health of the plants and yields. In the lab, Brown isolated diseased portions of the plant and identified the pathogen present through DNA sequencing. The results will hopefully allow growers to be better prepared for soil-borne diseases in their crops and will enable the development of soil tests that predict the risk of disease developing. Lara is working with [James Woodhall](#) in the [Department of Entomology, Plant Pathology and Nematology](#). She lives in Star and is studying plant pathology in the [College of Agricultural and Life Sciences](#). The work is funded by the Idaho Wheat Commission, Idaho Barley Commission and the Idaho Bean Commission.



*Article by [Leigh Cooper](#), University Communications and Marketing.*

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