## GIS Day at University of Idaho



GIS on the Palouse

Using GIS to Optimize Soil Moisture Sensor Deployment and Plot Delineation in Cambitch Farm

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# How We Define Palouse Topography?

- Complex topography and highly variable soil moisture patterns
- Rolling hills with visible color contrasts
- Green and yellow patches, Spatial Heterogeneity SM

Iniversity of Idaho

- Water doesn't infiltrate or Redistribute uniformly
- Localized zones of water stress and yield variability

# Research Objectives

 Evaluate biochar effects on water- and nutrientholding capacity



- Use GIS to minimize spatial variability
- Optimize sensor deployment for accurate treatment comparison



# How Does GIS Helped me then?

#### North Face Units location map



- Use GIS to minimize spatial variability
- Snow Depth spatial Variability
- Setting Up the Experimental Units



### An analysis of the Bondo landslide, Graubünden, Switzerland

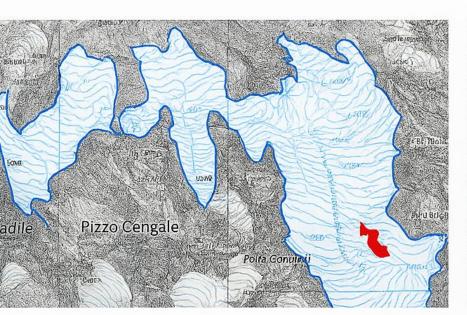
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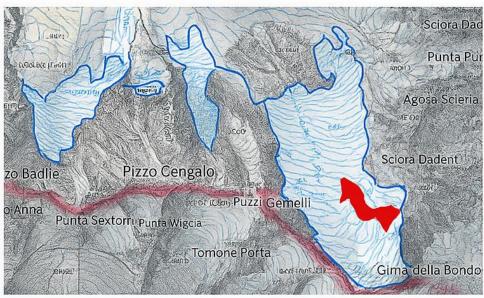
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### Glacier Retreat Analysis: 1992 vs. 2020



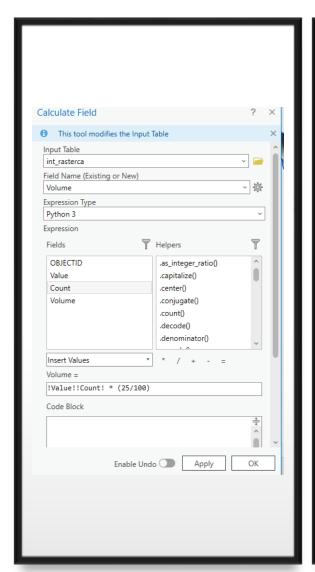


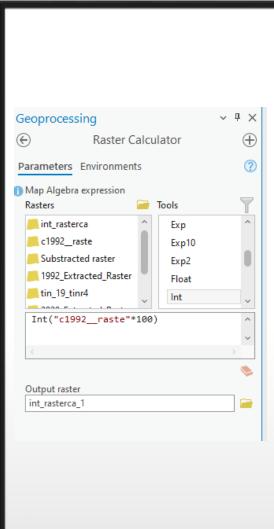
1992	2020

Glaciers year	Glaciated Area (squarekm)
1992	2.246
2020	1.4915

Table 2: Summarized area of Glaciers









# "Thank You"