

**Experimental Design and Field Layout Planning**  
**Monday, 9:20 AM**

Jesse Poland & Kelly Thorp

- I. Experimental Design (Poland)
  - A. Field design considerations
    - 1. Moving from 'hand' measurements to 'HTP'
    - 2. Plot size and layouts
  - B. Field management considerations
    - 1. Timing of phenotyping and other field operations
    - 2. Placement of reference points
    - 3. Placement of static probes, etc.
- II. Field Layout Planning in GIS (Thorp)
  - A. Geospatial Nature of Phenotyping
  - B. Shapefiles
  - C. GIS Maps and Attribute Tables
  - D. Polygon Plot Maps
  - E. Field Layout Planning
  - F. Point-based Sensor Data
  - G. Georeferencing