

Data Harvesting for Agriculture

CarpentryCon 2020 Lightning Talk

Overview

“Our motivation for creating this workshop is the recent, rapid increase in the volume of data produced on farms and the use of such data for decision making by farmers.

“After attending our workshop, you will be able to develop small computer programs of your own for analysis, visualization, and decision making, and will be able to share those programs with others.”

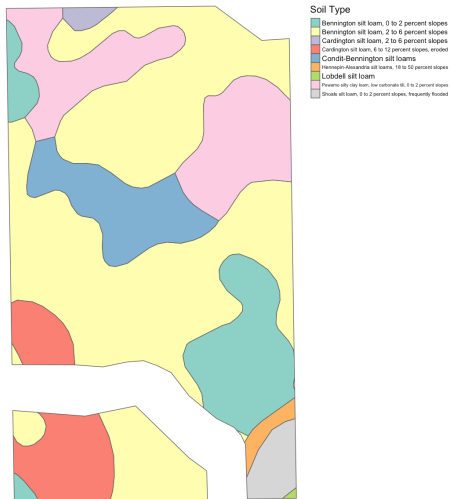
Scope

- 1 Non-academic audience
- 2 No prior programming assumed
- 3 Target: Use or modify packaged scripts

Topics

- 1 R/R Studio basics
- 2 Geospatial data (QGIS)
- 3 Trial design
- 4 Weather history and soil types

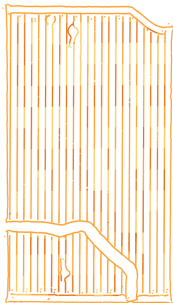
Products



Products

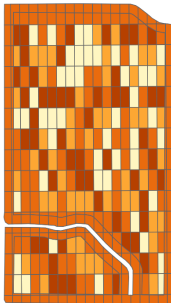
Nitrogen

- 50 to 100
- 100 to 150
- 150 to 200
- 200 to 250
- 250 to 300
- 300 to 350
- 350 to 400



Nitrogen

- 180 to 190
- 190 to 200
- 200 to 220
- 220 to 240
- 240 to 260



Feedback

- + “Good intro to working with spatial data in R”
- + “How using farm data can improve farming operations”
 - Needs less emphasis on trials, more hands-on work with QGIS and mapping
 - Needs more time working with own data

Next Steps

- 1 Refine focus for field operations
- 2 Include irrigation-based farming
- 3 Expand mapping operations and QGIS
- 4 Retool exercises for working with own data

Credits

- 1 Dr Lindsay Clark, PI (UIUC HPCBio)
- 2 Dr Jill Naiman
- 3 Brittani Edge
- 4 Aolin Gong
- 5 Dena Strong

Finding Us



data-carpentry-for-agriculture/
trial-lesson