

# Population statistics

AGRON 5130

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## Question 1

Load the shapefile “data/elkhart\_ia\_yield\_map/elkhart\_ia\_yield\_map.shp” using the *st\_read()* function, and assign it to the data frame “soybean”

## Question 2

Review the structure of the “soybean” data frame using the *head()* function.

## Question 3

Plot the yield map using the *plot()* function. Remember you need to designate the column to plot.

## Question 4

Create a histogram of the yield using the *hist()* function.

## Question 5

Calculate the mean yield.

## Question 6

Calculate the median yield

## Question 7

Calculate the standard deviation for yield.

## Question 8

Load the planting map “data/moline\_il\_planting\_map/moline\_il\_planting\_map.shp”.

## Question 9

Inspect the data using the *head()* function.

## Question 10

Map the column “AppldRt”, which measures the actual planting rate.

## Question 11

Create an histogram for the actual planting rate using the *hist()* function.

#Question 12 What was the mean actual planting rate?

## Question 13

What was the minimum actual rate planted?

## Question 14

The standard deviation can be used to gauge the consistency of the planting rate. What was the standard deviation of the actual planting rate?