1931-1932 Barley Yield by Site and Variety

Duluth

Grand Rapids



WriteUp

I decided to tell a pretty simple, straightforward story with the data: barley yields generally seemed to decrease from 1931 to 1932. In order to do that, I decided to look at each barley site and create a separate radar plot for each site, for a total of 6 radar plots. Plotting the yields by site also allowed us to see if certain barley varieties grew better in certain sites. I had originally created a separate bar chart for each site, but the 20 bars of data that were displayed for each station was a lot to process, so I tried to "condense" the visualization to make it easier to process and understand.

Each of the radar plots is scaled from 0-70bushels/acre. At first, the scales for each of the radar plots were different, because some stations clearly had higher yields than others. But I figured that if the plots were all displayed using the same scale, it would be easier to visually compare barley yields between stations without having to squint at the numbers. So now, it is easier to see that Waseca overall seemed to have higher barley yields than Duluth during both years because the Duluth plot is more concentrated in the center.

I also plotted the 2 years' data on the same plot for each station in order to compare how barley yields changed over the years based on barley site. This also made it easier to see if there were trends in yearly barley yield amongst the stations and if different sites dealt with yearly changes in conditions differently. For example, we can immediately see that Morris is the only site where 1932 had a higher barley yield than 1931. We can also see that there wasn't much change between the barley yields between years in Duluth.

Finally, I was also curious about whether the locations of the barley sites had anything to do with barley yield, so I ordered the sites by their proximity to large bodies of water (for example, Duluth is the closest because it is located right next to Lake Superior). From the visualization, it seems like the stations that were closer to water had lower yields. But we will need more data before jumping to that conclusion.