

Diego Hernandez  
CS448B Assignment 1

In exploring the data, I found it intriguing that at all the stations except for Morris, the total yield decreased between 1931 and 1932.<sup>1</sup> I decided to highlight this fact in my visualization, while also making visible the breakdowns of each station's total yield by variety.

As such, my visualization is a stacked double bar chart. Each pair of bars represents the yields in 1931 (left) and 1932 (right) for each station. That is, the yield for one variety in a particular year at a particular station is mapped to the height of a bar segment. The bar segments corresponding to the readings for each variety at a particular station on a particular year are stacked on top of each other, so that the total yield for that station at that year is mapped to the height of the entire bar. In addition, each barley variety is mapped to a different color. Since these varieties don't fall into a meaningful ordering, the visualization uses differences in hue rather than brightness to disambiguate the varieties.

The varieties are sorted in alphabetical order going up each bar. The order is the same for each bar in order to make it easier for the viewer to pick out a particular variety. I considered having a different ordering for each station depending on the absolute value of the percent increase/decrease of each variety between 1931 and 1932 but decided against it to keep the visualization simple. With this, it is still easy to pick out a particular variety and very roughly eyeball 1) its relation to the total yield for that year at that station and 2) whether or not its yield from year to year was drastically different for a particular station (for instance, Svansota's yield in Crookston plunged between 1931 and 1932).

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<sup>1</sup> In context, a decrease in total yield makes sense, as the Dust Bowl started to reach Minnesota around that time.

Barley Yields by Variety and Station in 1931 and 1932



