



Data Analysis of Saskatchewan Crops





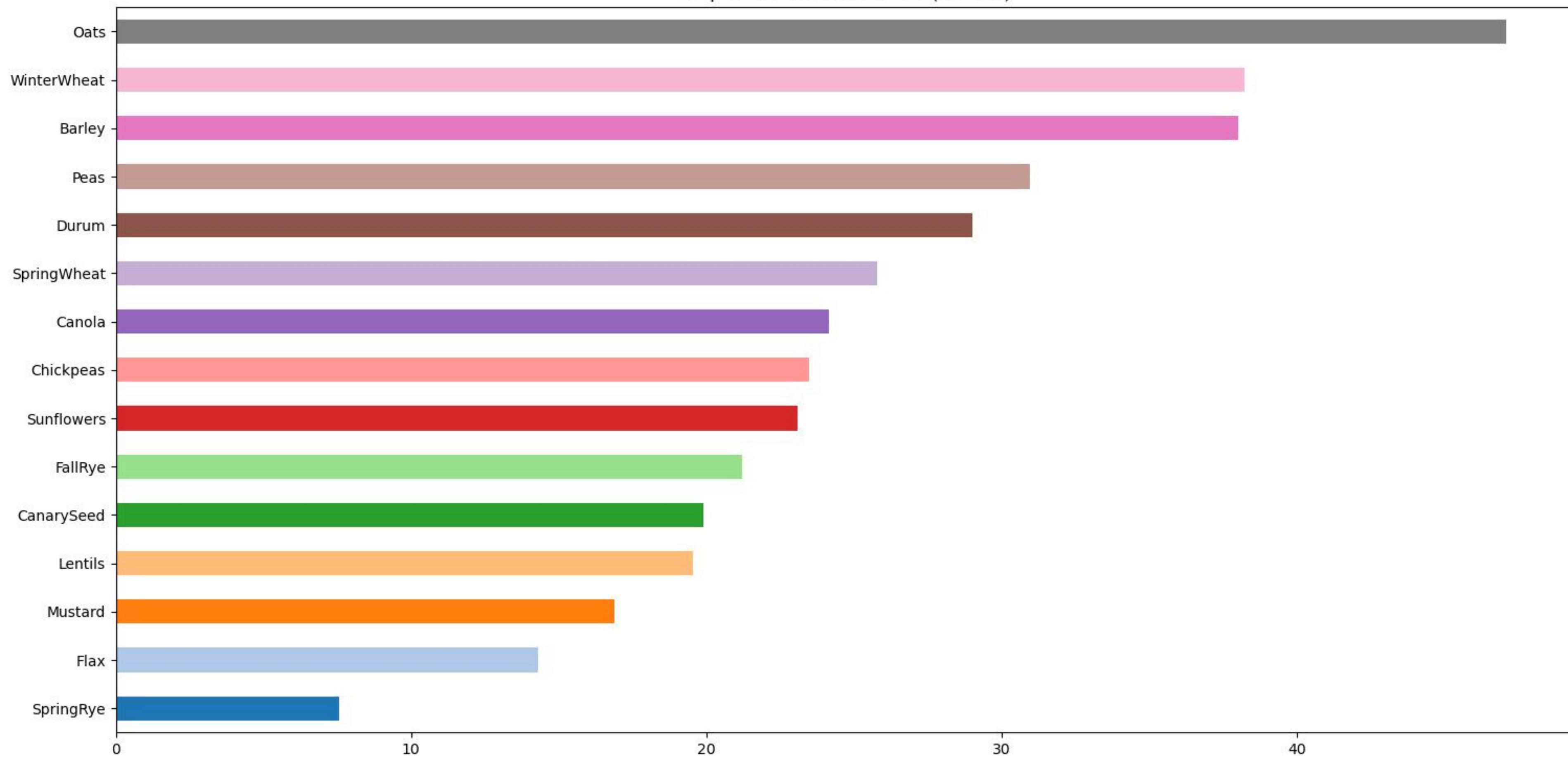
Saskatchewan is the breadbasket of Canada. It is among the world's largest exporter of various field crops.

With crop yield analysis, farmers can make better decisions on resource management and increase yield. By increasing crop yield, we can maximize the use of land for agriculture.

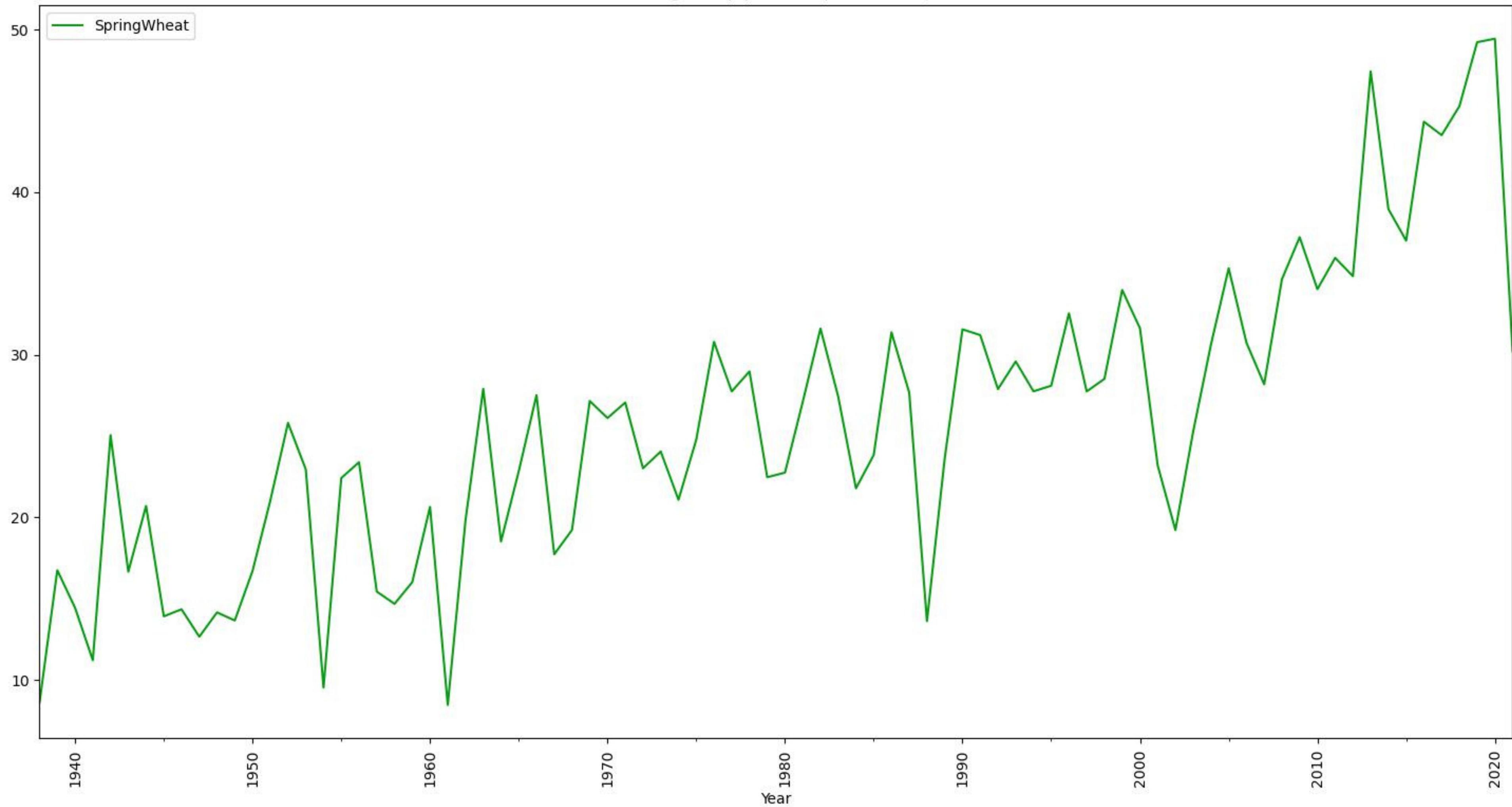


Dataset is from 1938 to 2021
from 298 rural municipalities.

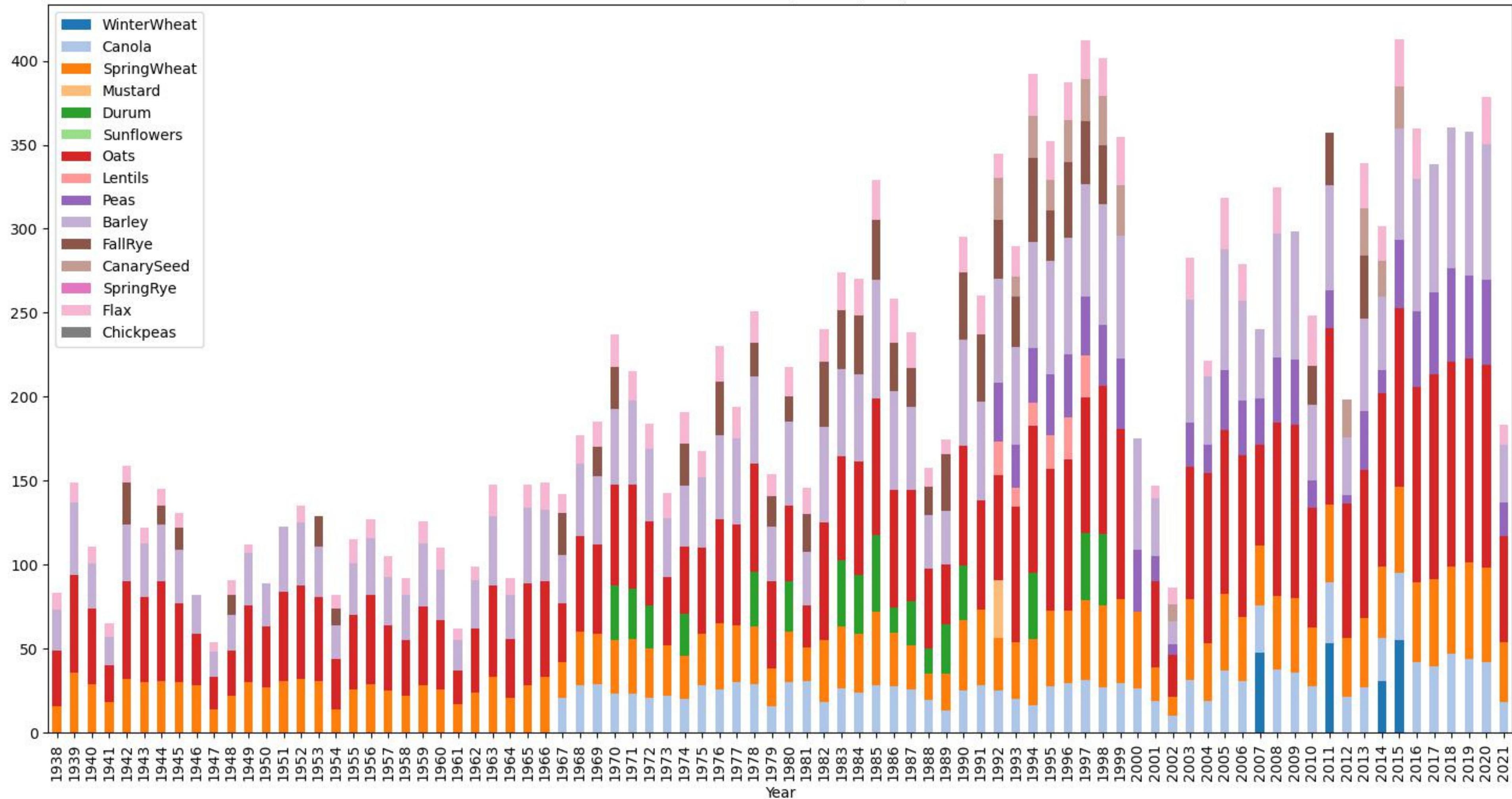
Crop Yield from 1938 - 2021 (bu/acre)



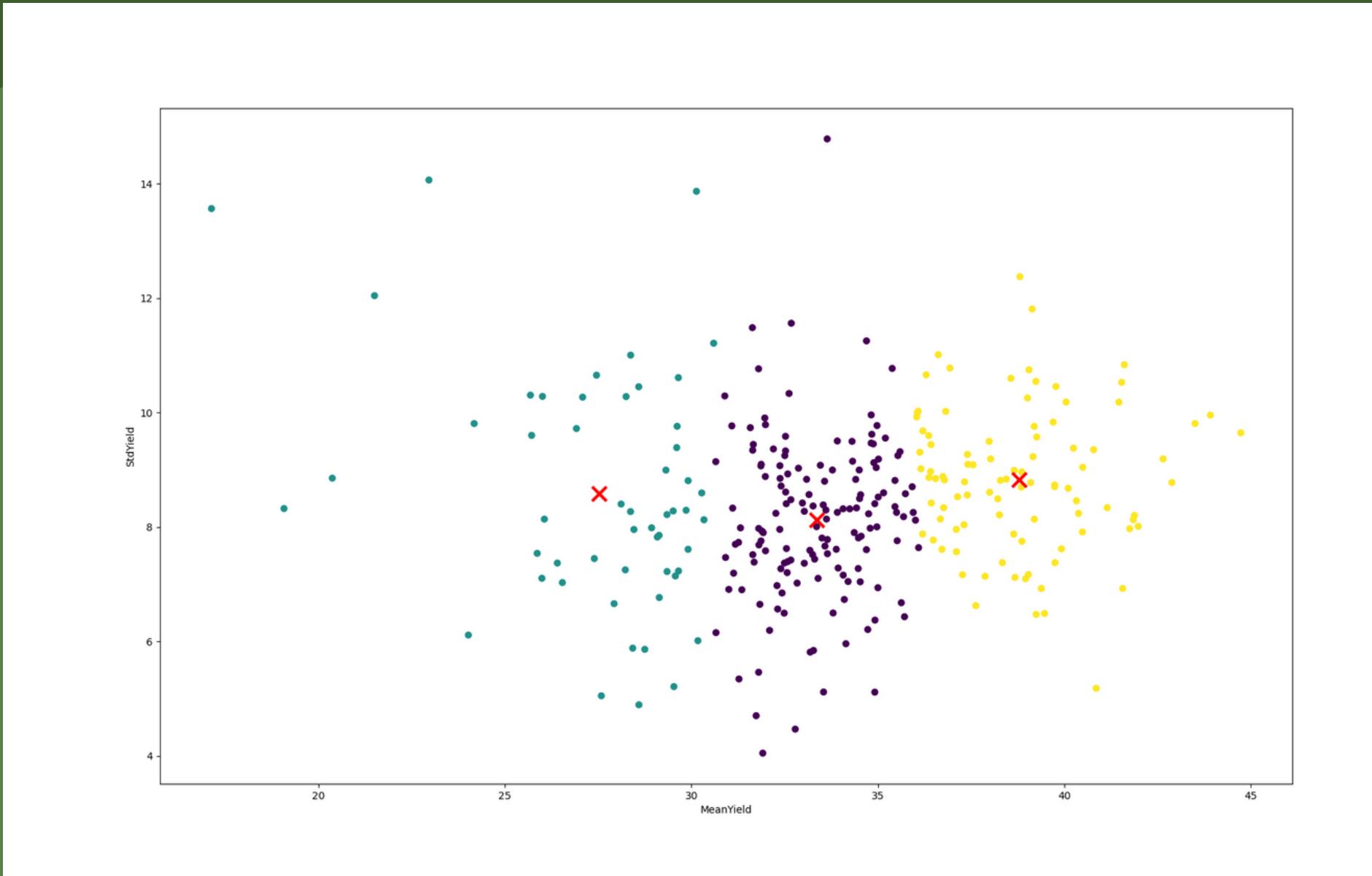
Average Crop per Year (1938-2021)



FLETT SPRINGS (RM 429) Crops

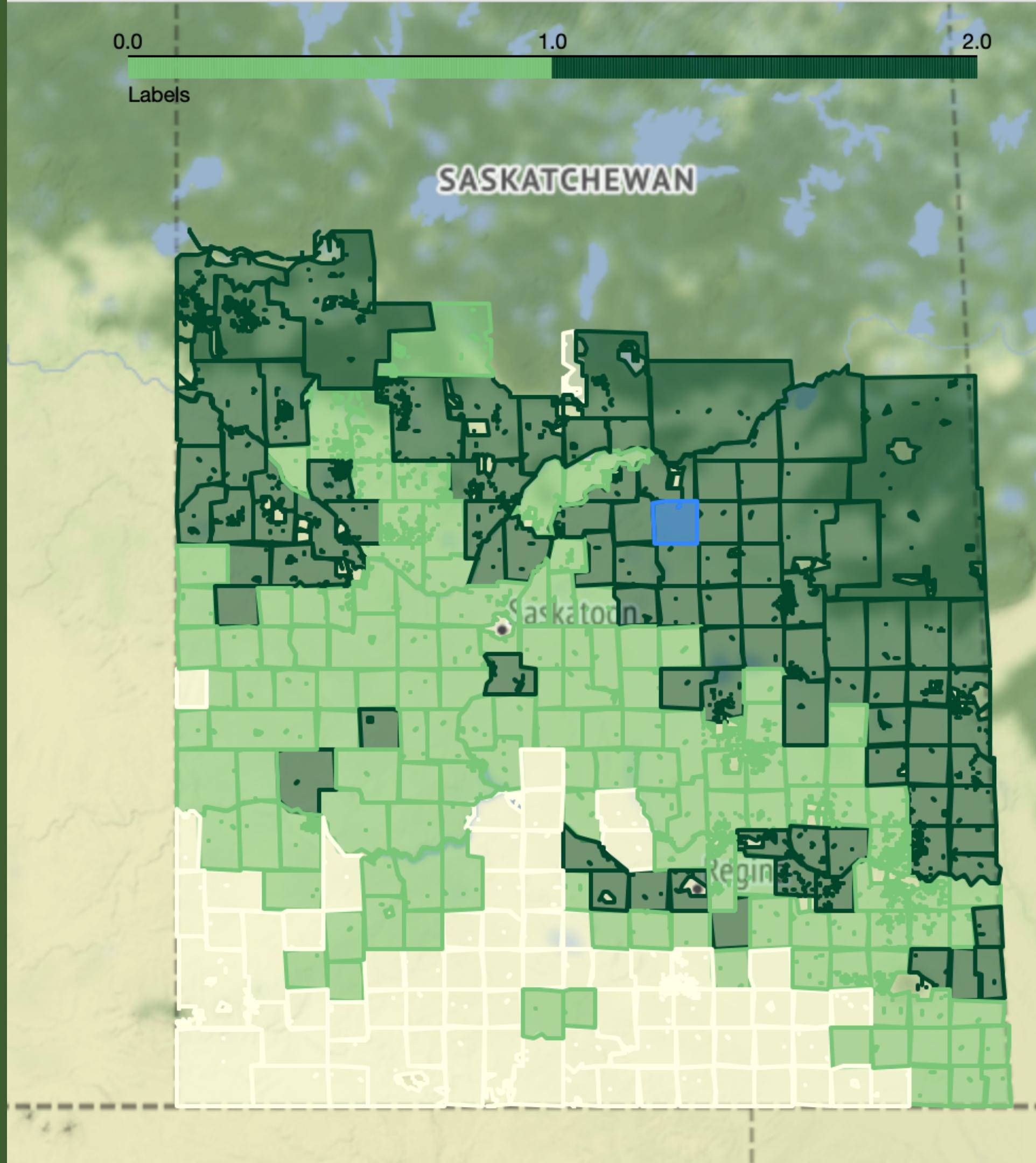


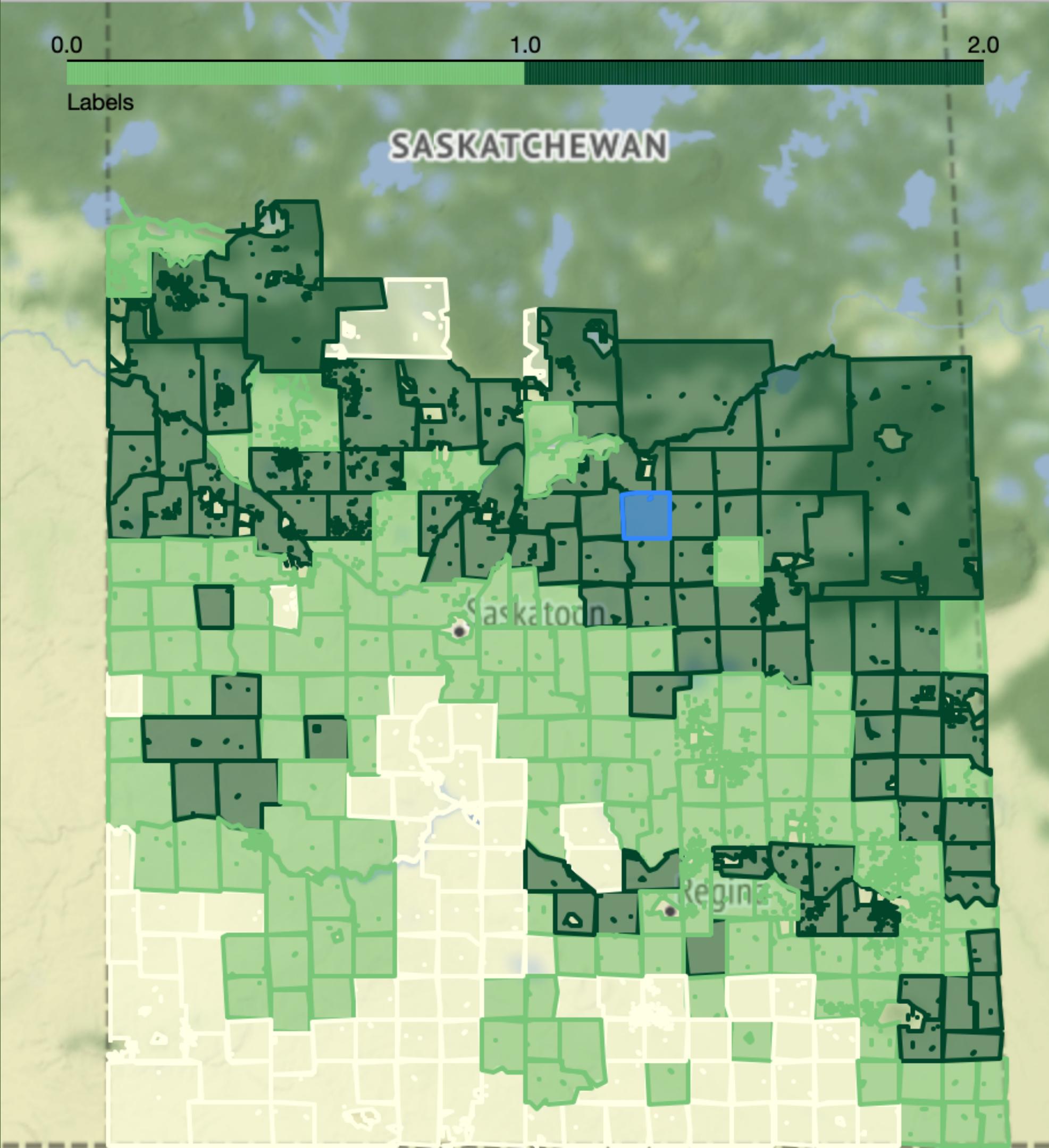
K-MEANS CLUSTERING



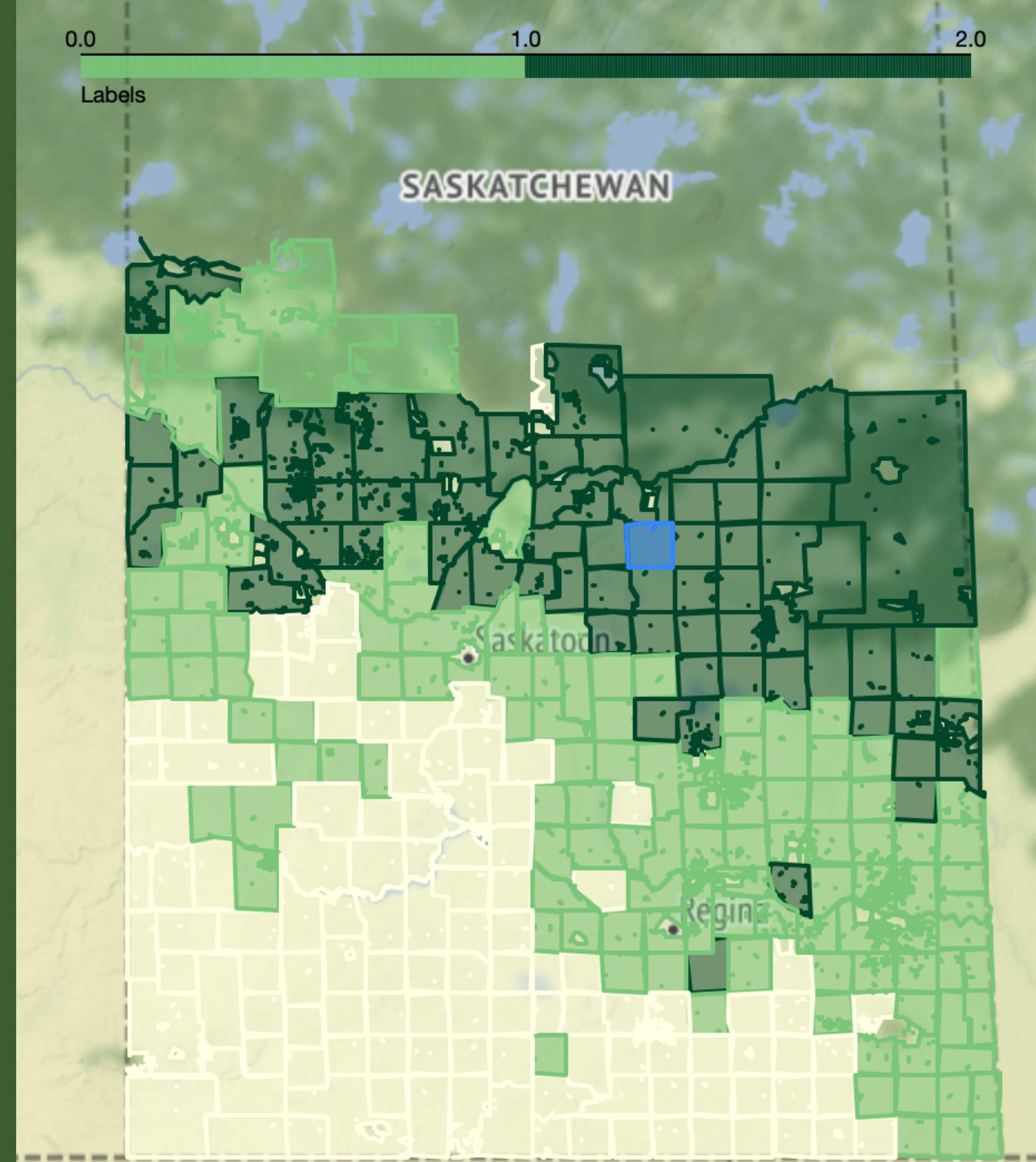
The algorithm tries to find similarity between the items and group them into clusters.

Clustering Spring Wheat

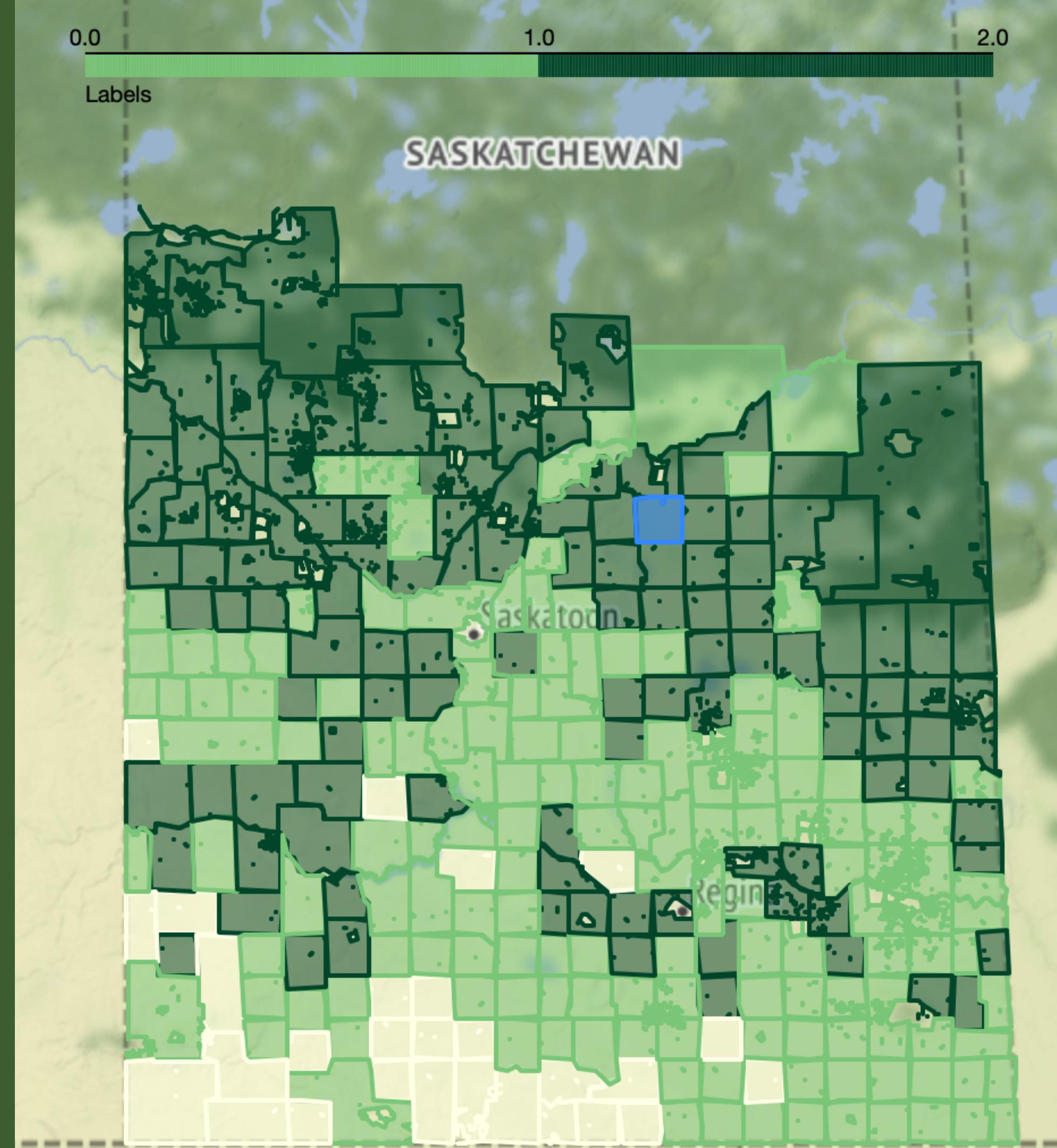




Clustering
Barley



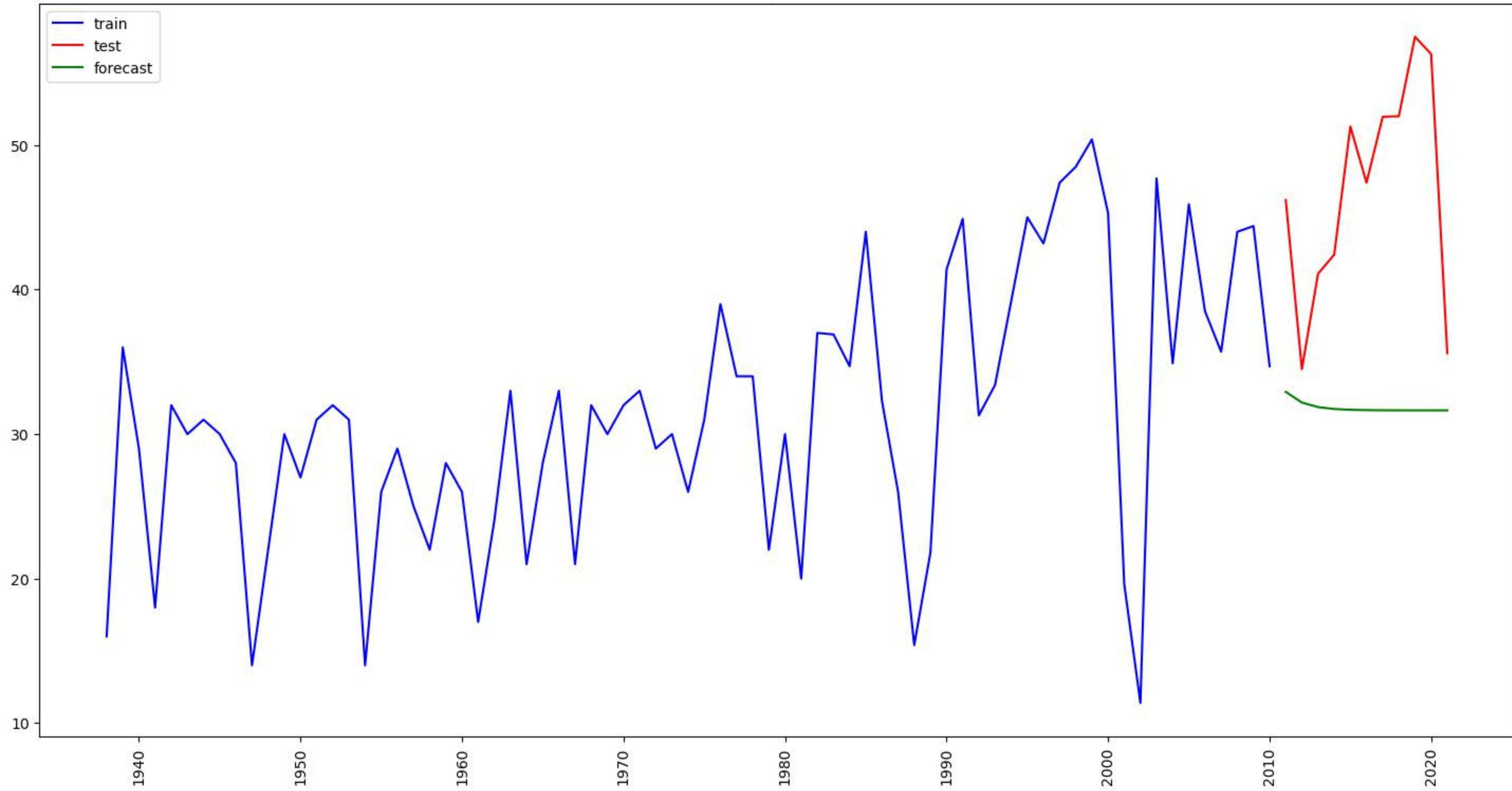
Clustering
Oats



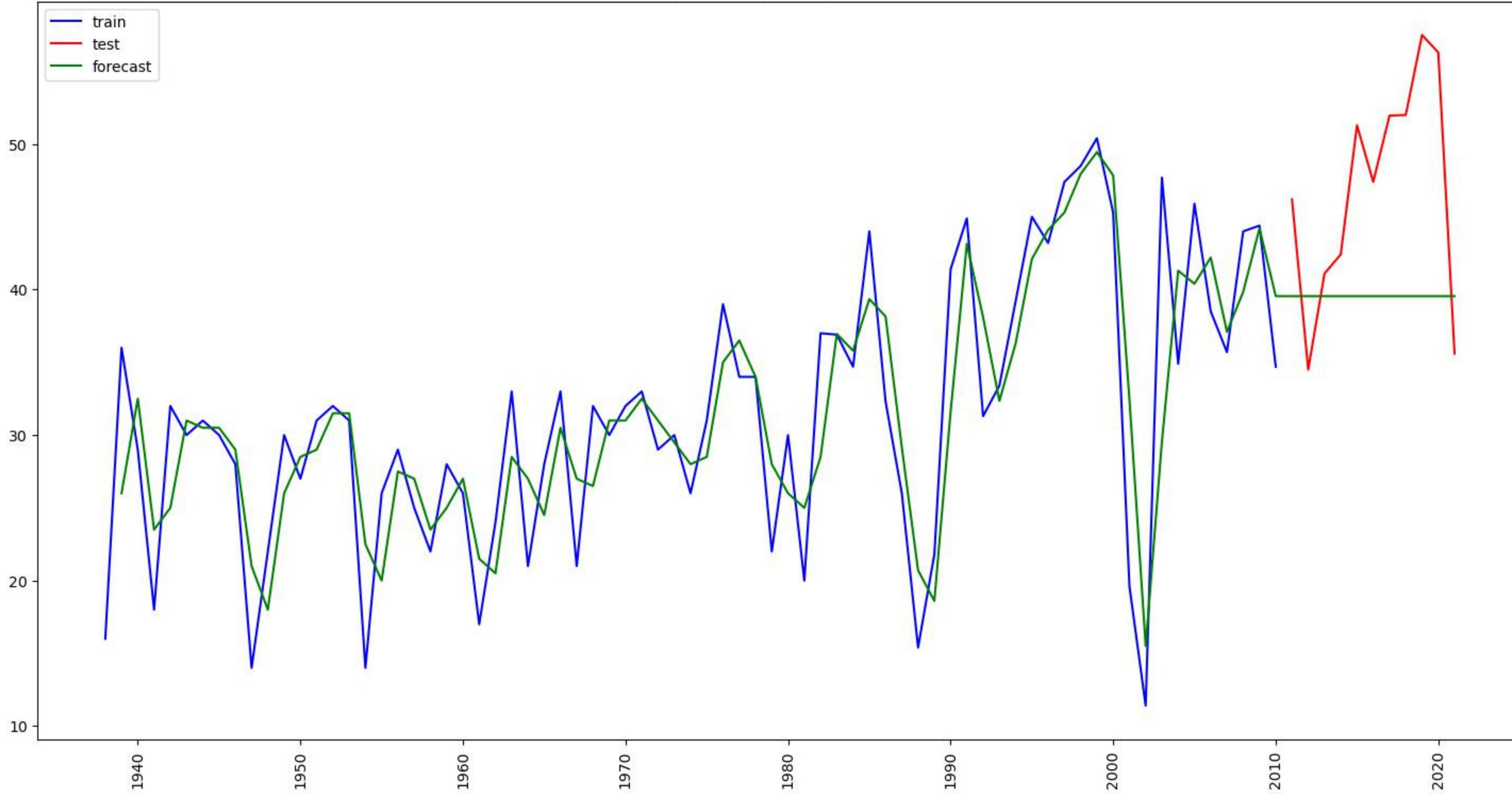
Clustering
Canola

TIME SERIES FORECASTING

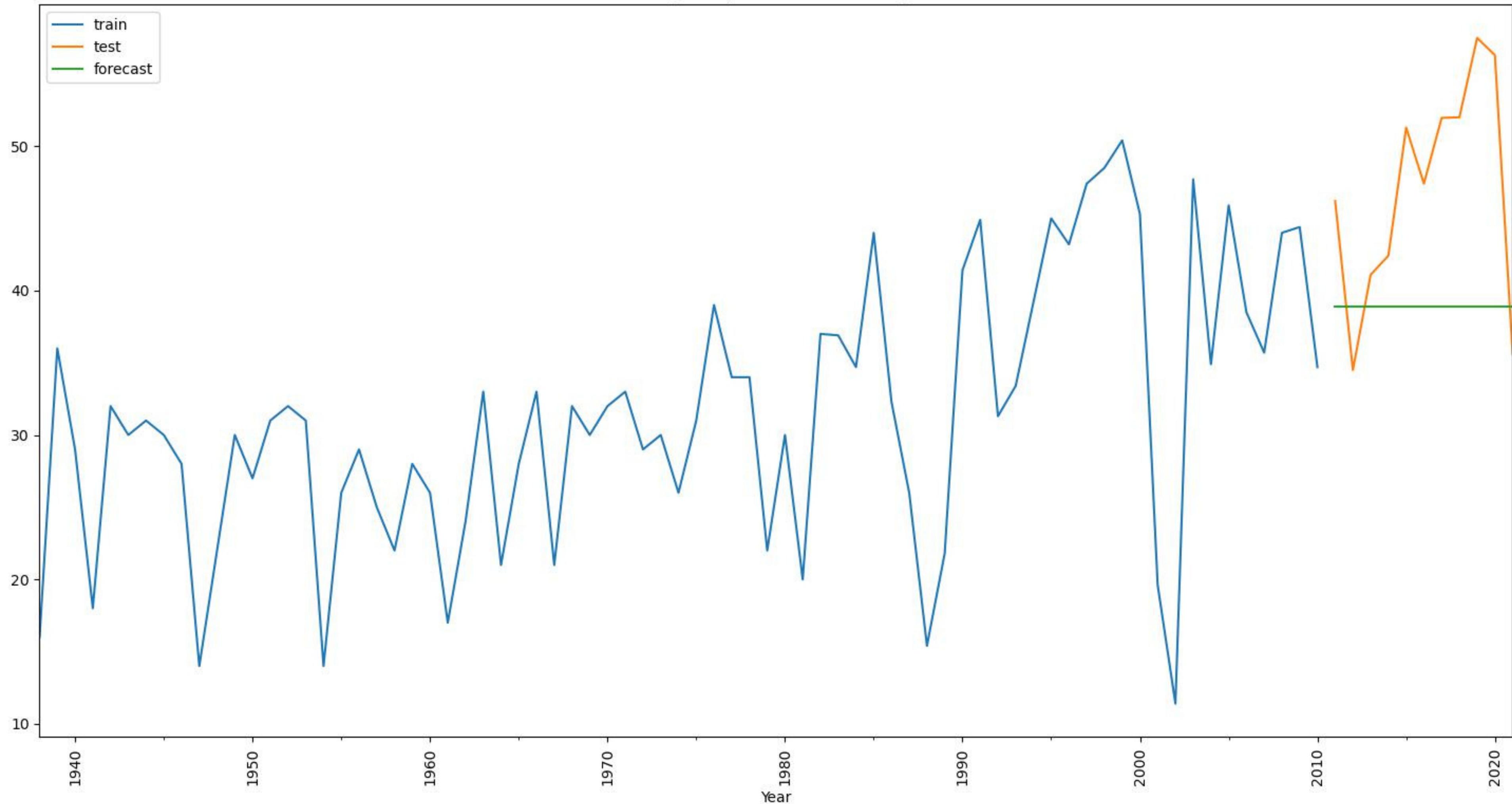
Autoregression



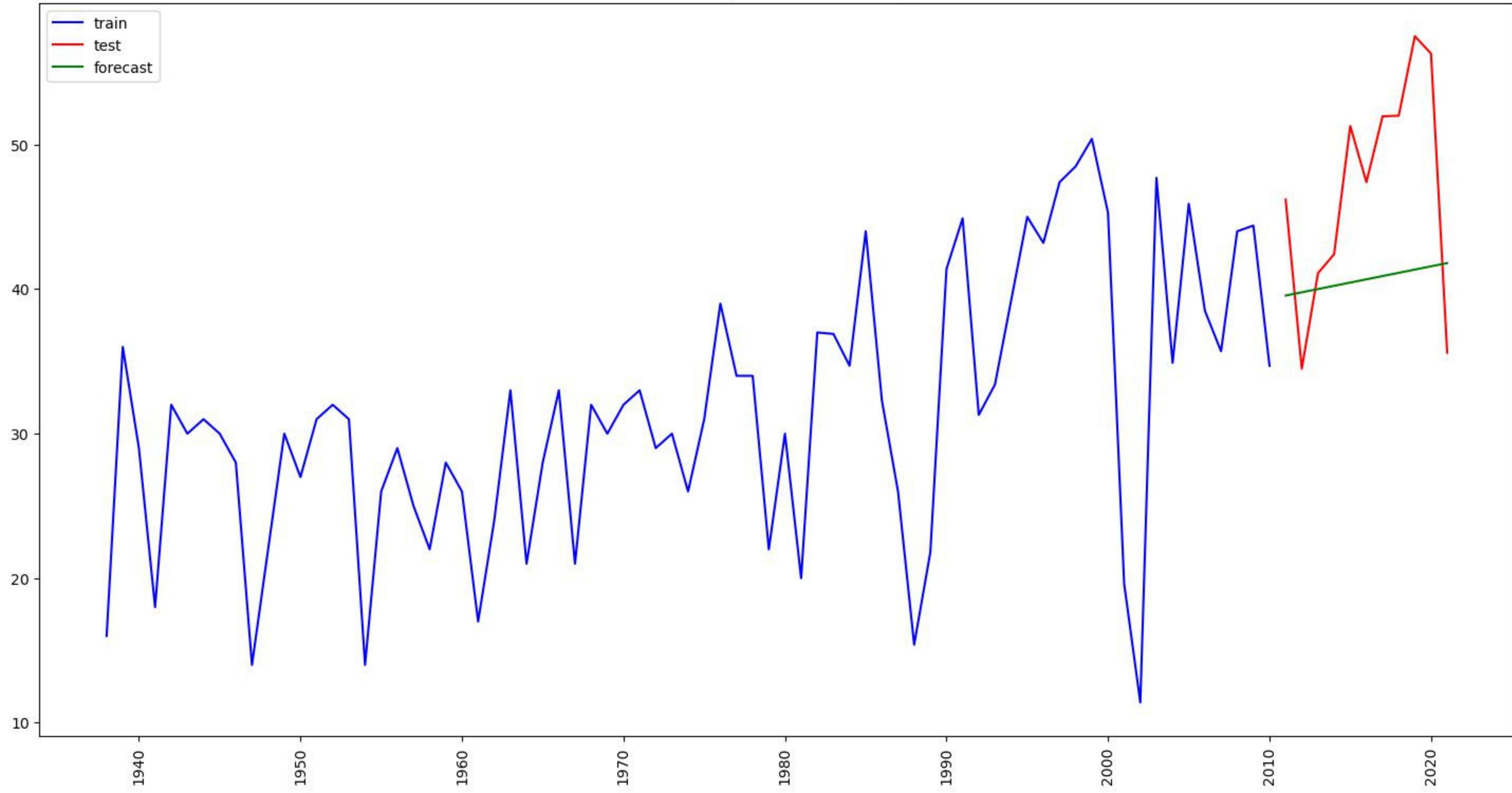
Simple Moving Average Method



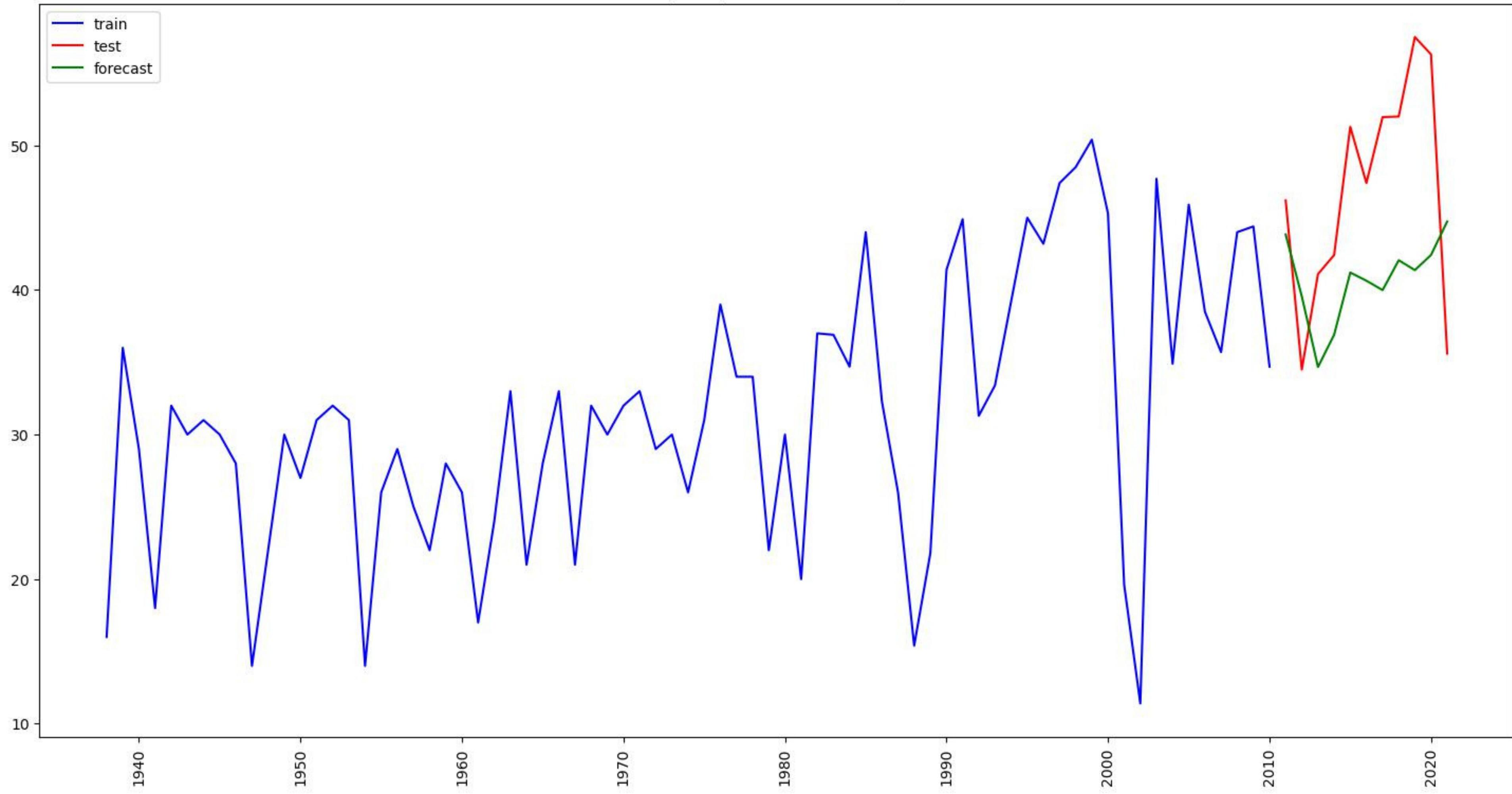
Single Exponential Smoothing



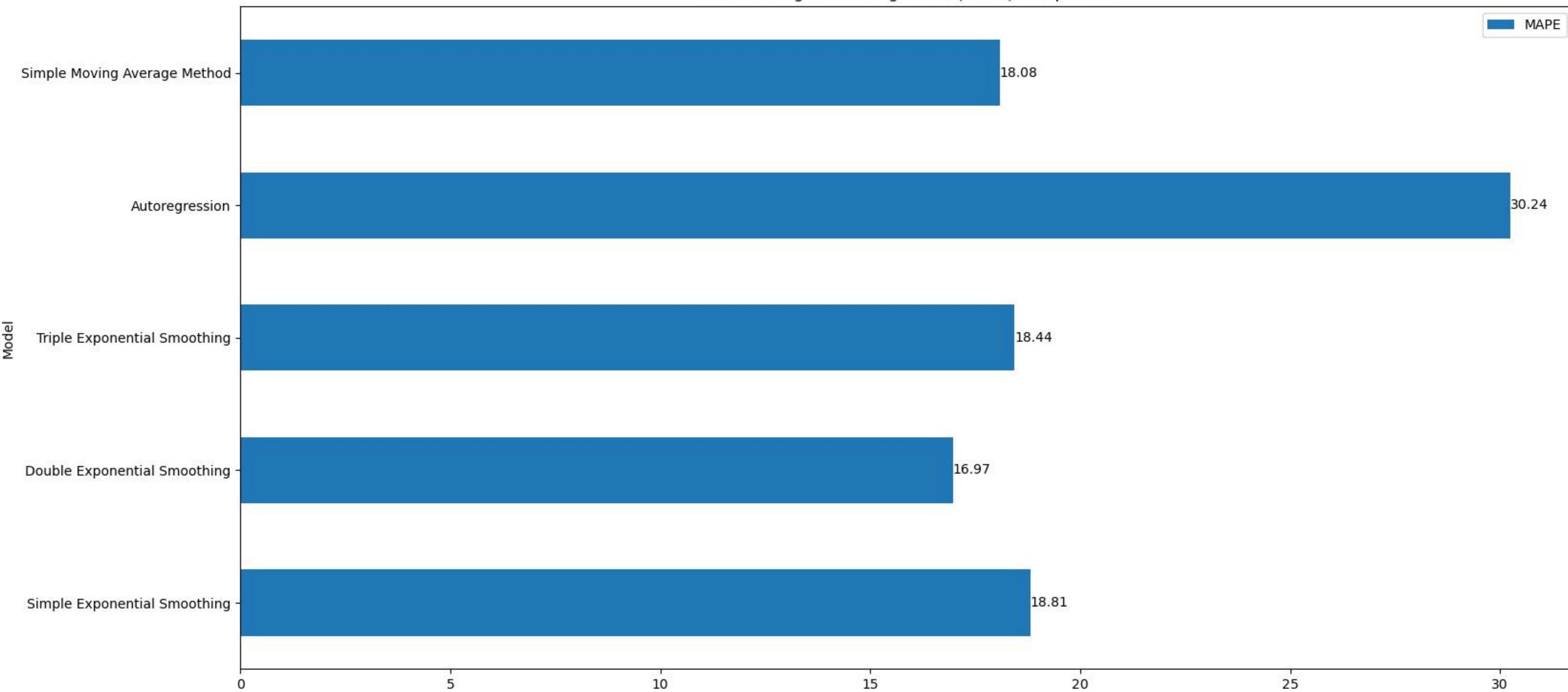
Double Exponential Smoothing



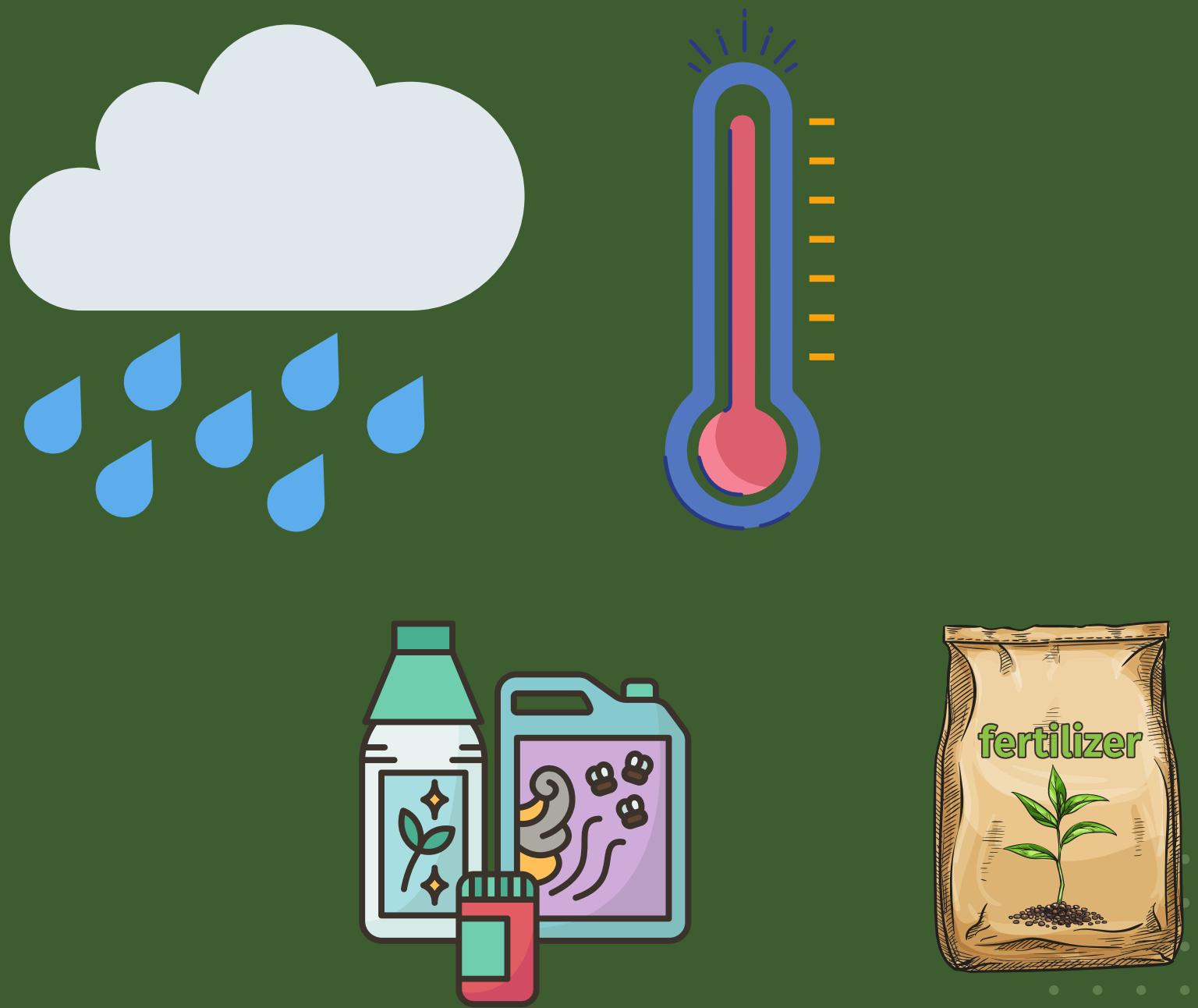
Triple Exponential Smoothing



Mean Average Percentage Error (MAPE) Comparison



FUTURE WORKS





A close-up photograph of a person's face, focusing on the eyes and nose, with a blurred background of green foliage.

THANK YOU