I found the datasets of Chicago’s wheat price and weather indices. Then I cleaned data and got needed variables. I found that winter wheat accounts for 70% of the wheat in the United States, and because of the geographical factors of Chicago, I decided to study the impact of weather on winter wheat prices. In Chicago, winter wheat is planted from August to October, from November to March is the dormant period of wheat, and from May to July is the harvest period, so in the following dataset I set the variables for the months from November to May.

Table

Description automatically generated

Next, I will subdivide these variables according to the different periods of wheat growth, then use non-linear regression to find relationship between variables and wheat price to determine the best variables that affect wheat prices.