

# Impact of Canadian Crop Prices on Crop Production

Foundations of Data Science - Group Project

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# **1 Summary**

## **1.1 Data source**

### **1.1.1 What is the nature of the data you chose?**

The data is about farm product prices in Canada dating from 1985 to 2023 November. The data contains the monthly value of each farm product in respect to which province they are provided by. The monthly value in the dataset is depended on what unit of measurement the product is assigned to eg. Dollars per metric tonne. This dataset is provided by Statistics Canada.

### **1.1.2 Why is it interesting?**

The data is interesting because it provides information from 1980 to this present day which allows us to see agricultural trends. With the analysis of these trends it could provide us with insights with current day problems such as inflation and the cost of living crisis.

## **1.2 Analysis**

### **1.2.1 What were the challenges?**

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### **1.2.2 How did you overcome them?**

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## **1.3 Conclusions**

### **1.3.1 What did you learn about your dataset?**

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## **2 Objectives**

### **2.1 What are the goals of the analysis and why did you choose them?**

The goal of this analysis is to explore and better understand changes in the production of agricultural crops in Canada. Understanding these fluctuations can yield valuable insights into the Canadian economy and the agricultural sector.

Statistics Canada collects copious amounts of data via the Census of Agriculture (REF) thus making these datasets excellent candidates for analysis in our group project.

### **2.2 What question(s) do you want to answer?**

While the collections of elements affecting the total production of agricultural products are complex and multifaceted, this report we focus solely on a single variables: price.

### **2.3 What hypothesis(es) do you have and what is your approach to tackle the problem?**

The null hypothesis for this anal

NOTES: supply management, commodities, large investments

## **3 Data Preparation**

### **3.1 What was your data source (e.g., web scraping, corporate data, a standard machine learning data set, open data, etc.)?**

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### **3.2 How good was the data quality?**

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### **3.3 What did you need to do to procure it?**

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### **3.4 What tools or code did you need to use to prepare it for analysis?**

For chickens, the raw had to be transformed... etc. Talk about NL data being excluded and the provincial data being aggregated by annual mean; see Figure 1

### **3.5 What challenges did you face?**

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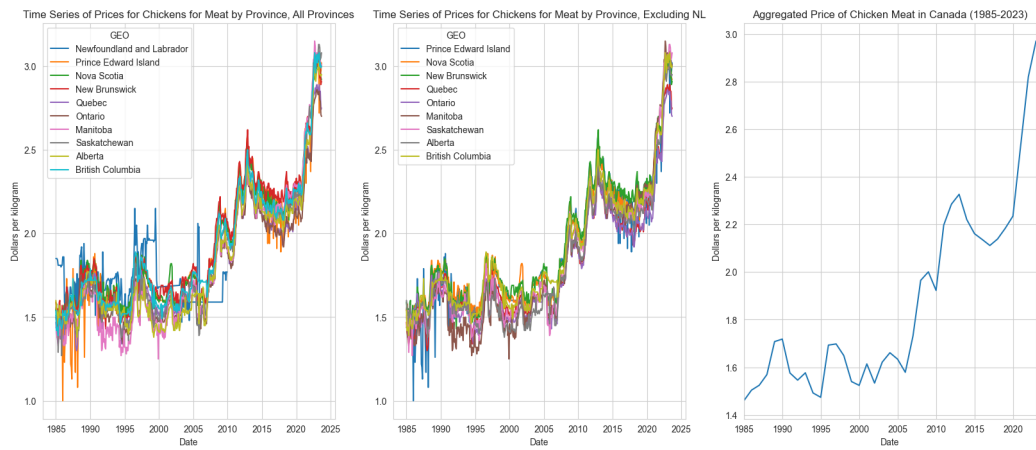


Figure 1: Here is a graph that Jason made.

Figure 2: Here is a graph that Jason made.

## **4 Analysis**

### **4.1 What trends, correlations, and/or patterns do you see in the data?**

#### **4.1.1 Poultry**

#### **4.1.2 Hog**

#### **4.1.3 Wheat**

## 5 Conclusions

### 5.1 What did you learn about your data set?