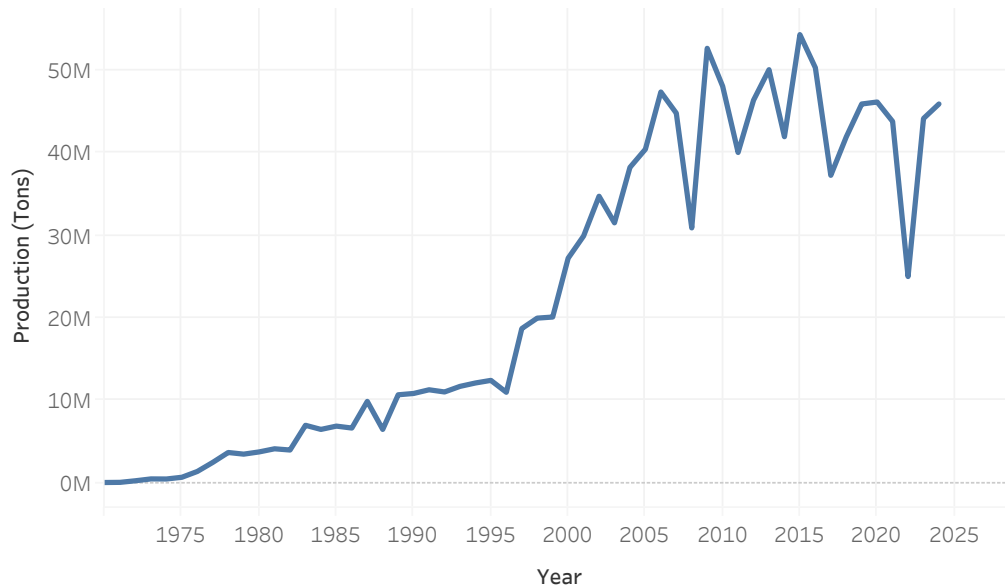


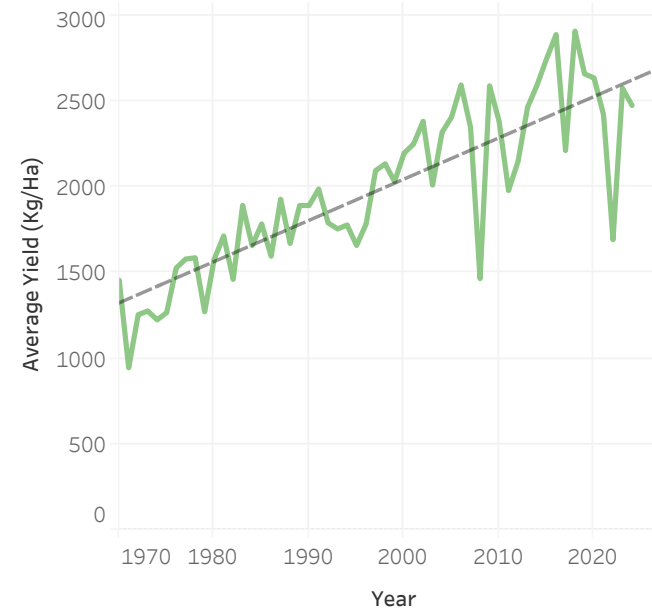
# Soybean Evolution in Argentina

Production, Planted Area and Average Yield Over Time

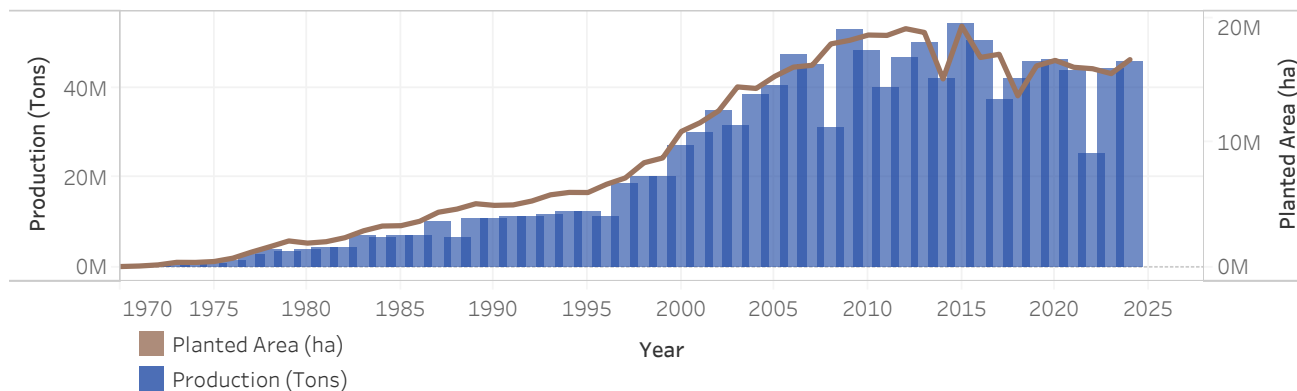
## Total Soybean Production



## Average Soybean Yield



## Production and Planted Area



Year of Highest production

**2015**

54.394.016 Tons

Lowest Yield  
(Last 20 Years)

**2008**

1.465 Kg/Ha

# Soybean Yield Stability and Variability

How yield changed year over year and how unstable it was across different periods..

2.404 kg/ha

Average Yield  
(2004–2024)

19,02 %

Average Year-over-Year  
Volatility (2019–2024)

23,91 %

Historical Coefficient of  
Variation

59 years

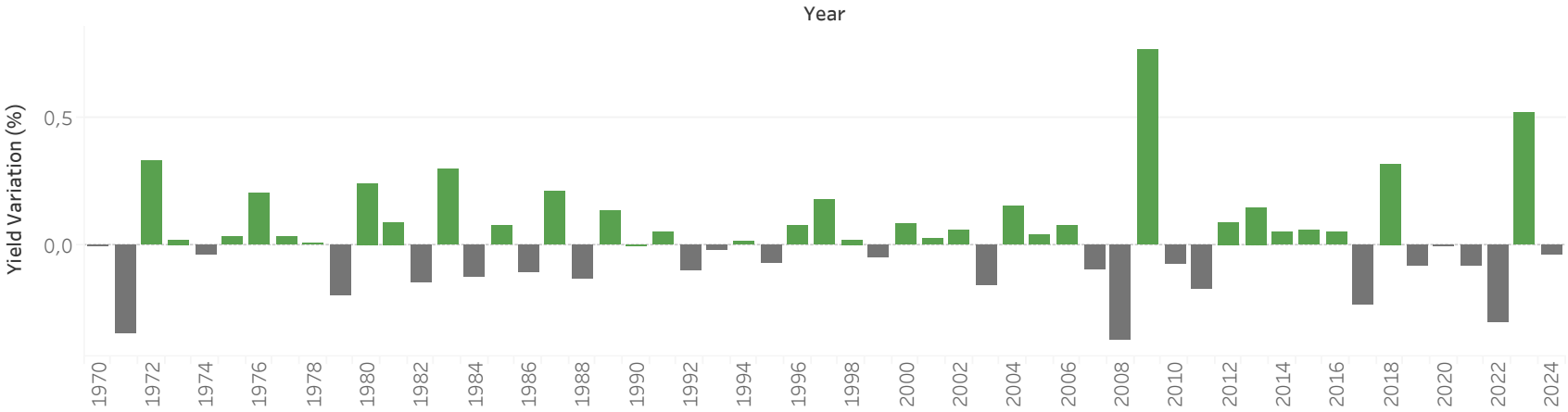
Historical Failure  
Frequency

8 years

Failure Frequency  
(2004–2024)

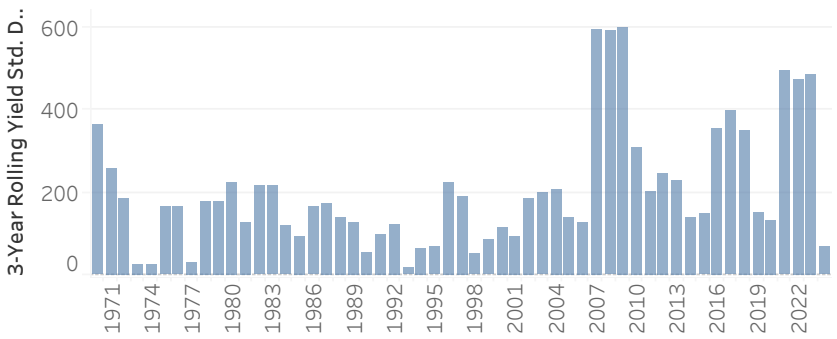
## Year-over-Year Yield Variation

Annual change in soybean yield



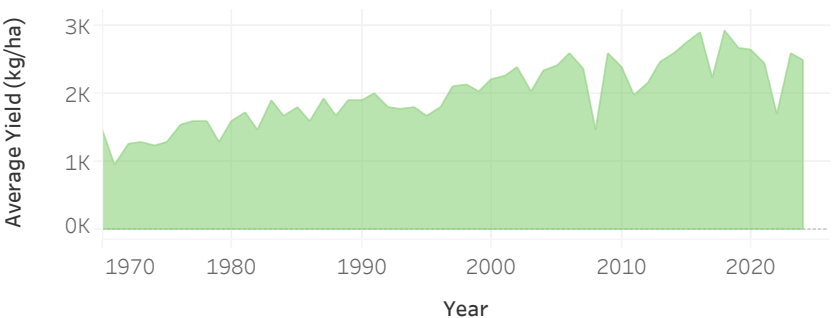
## Yield Volatility

Higher = More Instability



## Average Yield

Long-Term Trend



# Determinants of Soybean Production

Analyzing the interaction between harvested area, yield, and total production

14.992.283 tons

Average Annual Production

6.051.836 ha

Average Annual Harvested Area

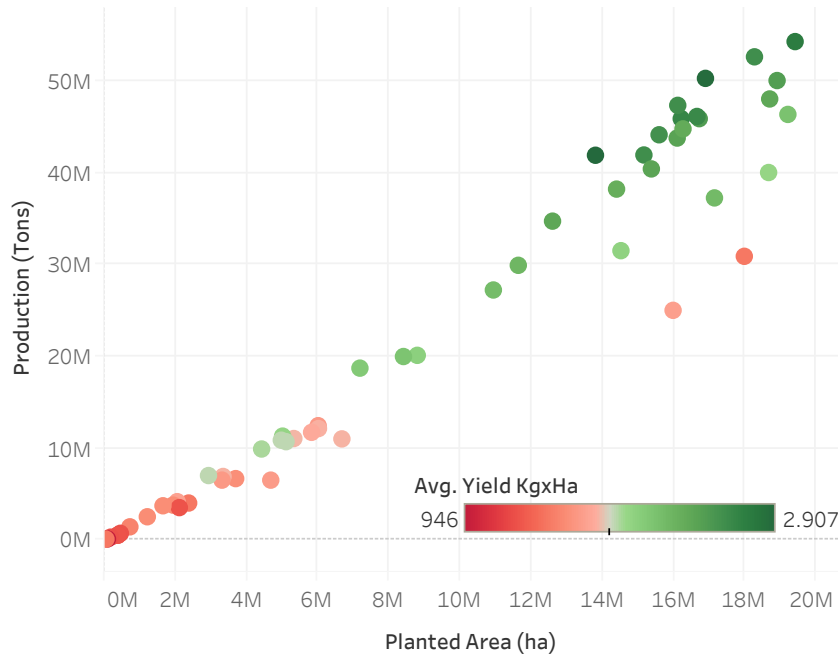
1,718 kg/ha

Average Effective Yield

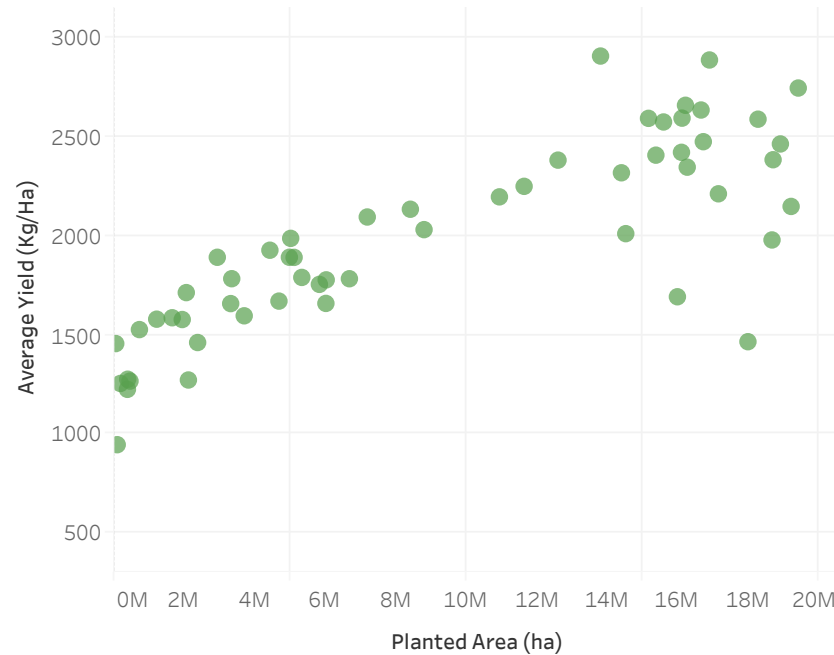
0,9816

Area-Production Correlation

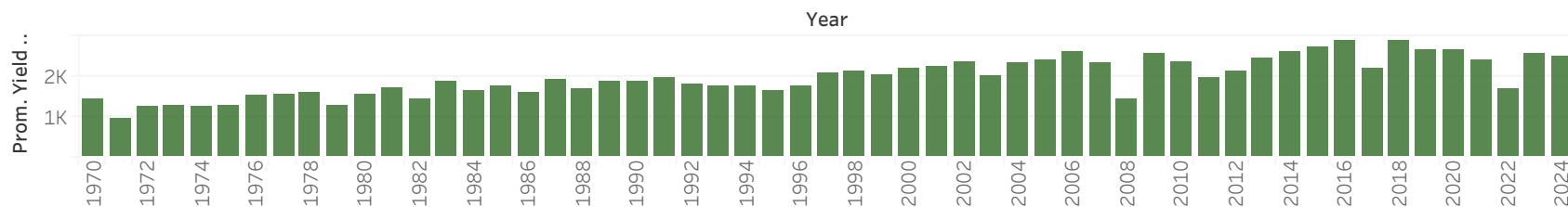
## Yield vs. Harvested Area



## Harvested Area vs Production



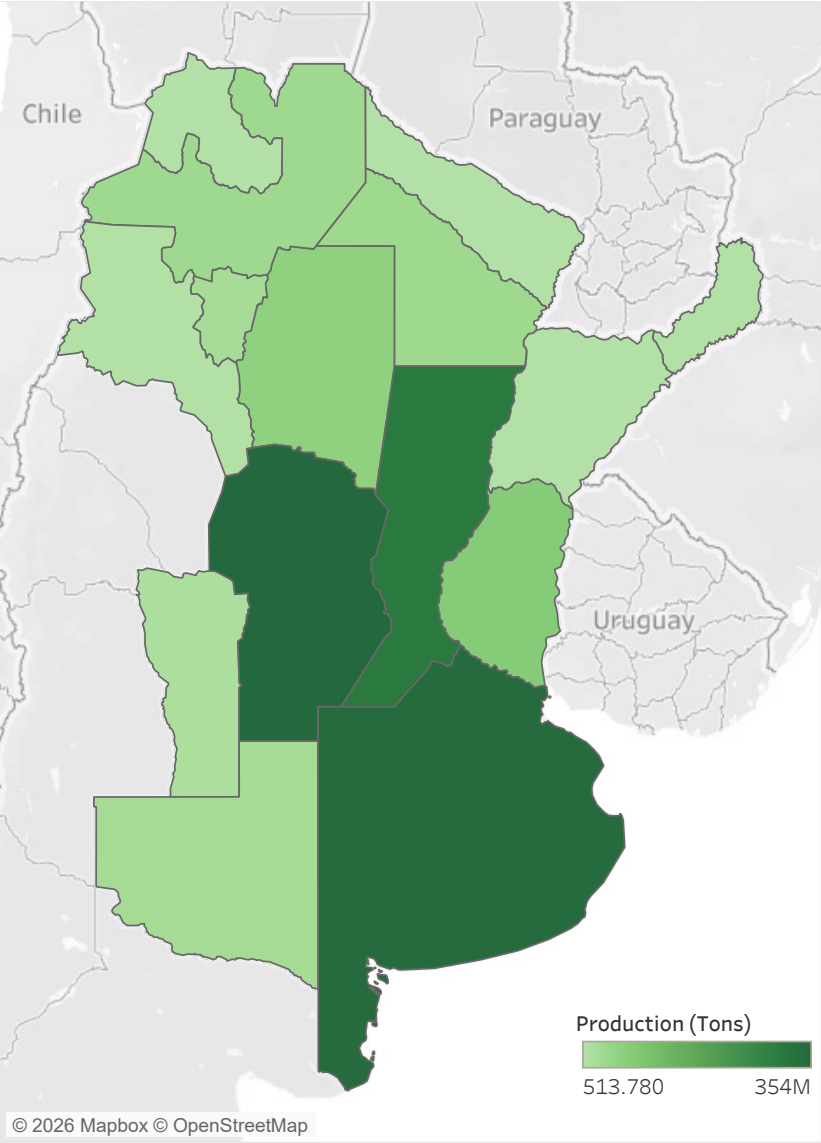
## Average Yield Over Time



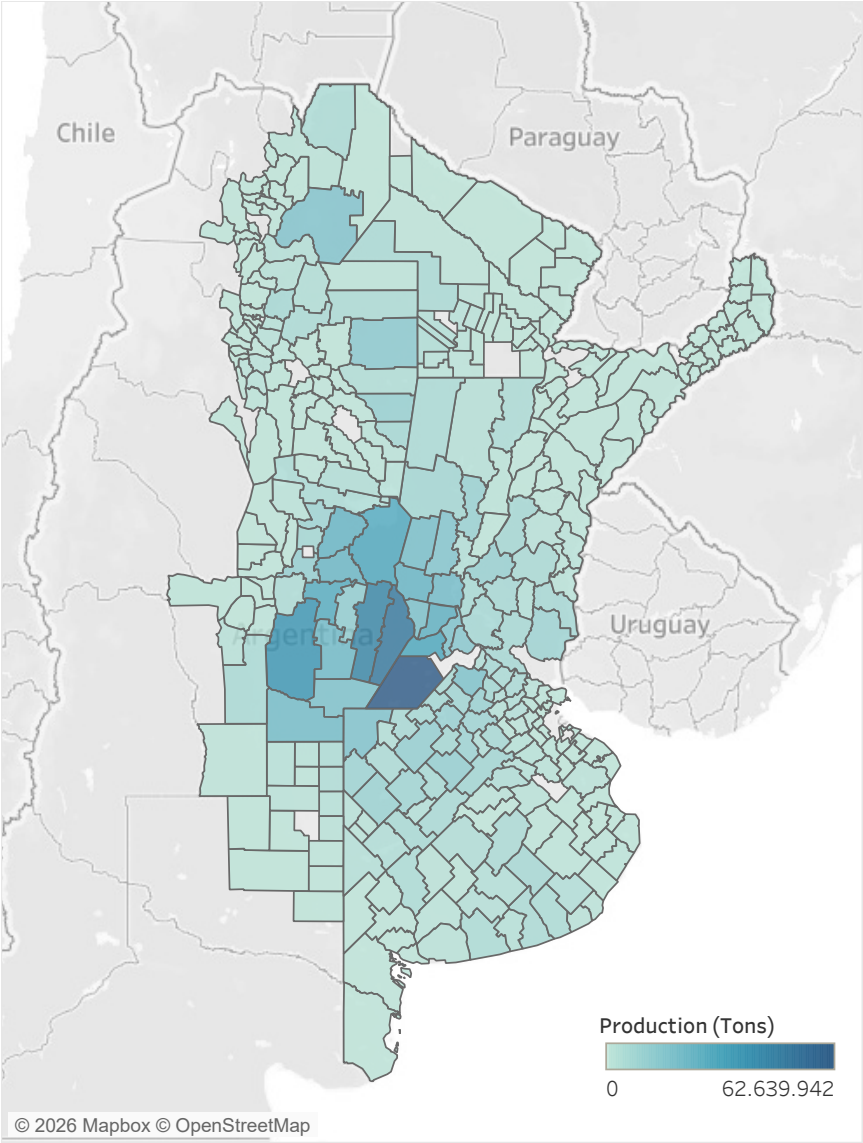
# Spatial Distribution of Historical Soybean Production in Argentina

Spatial Distribution of Historical Soybean Production in Argentina

Total historical soybean production by province



Total historical soybean production by department



# Soybean Production Stability Segmentation – Argentina

Clustering of Argentine departments based on yield level, variability and failure frequency

