

# User Requirements Document (URD)

**Project Name:** USDA Pricing Data Analysis

## Introduction

The USDA Pricing Data Dashboard is a data visualization tool designed to analyze pricing trends, market performance, and commodity dynamics for fruits and vegetables across U.S. markets. Using insights from USDA's 2022/2023 pricing data, the dashboard empowers stakeholders, such as market analysts and suppliers, to make informed decisions regarding pricing strategies, market targeting, and inventory management.

This project demonstrates the application of Power BI for transforming raw market data into actionable insights, enabling data-driven decision-making in the agricultural sector.

## 1. Purpose

To provide stakeholders with insights into market trends, commodity performance, and pricing dynamics for U.S. fruits and vegetables, enabling data-driven decision-making.

## 2. Scope

The dashboard will include:

- Year-over-year pricing trends.
- Performance analysis by commodity and market.
- Comparison of organic vs. non-organic products.
- Geographic analysis of high-price regions.
- Interactive tools for filtering by date and commodity.

## 3. Functional Requirements

- **Data Integration:** Combine 2022/2023 datasets for YoY comparisons.
- **Interactive Filters:** Enable filtering by date range and commodity.
- **Visual Insights:**
  - Total average sales and YoY price changes.
  - Top-performing markets and origins.
  - Organic vs. non-organic market share.

- **Price Volatility Analysis:** Show trends over time.

#### 4. Technical Requirements

- **Platform:** Power BI.
- **Data Sources:** USDA 2022/2023 pricing data.
- **Performance:** Dashboard loads within 5 seconds.

#### 5. Success Metrics

- Insights used for improved pricing strategies.
- Revenue growth in low-performing commodities.
- Better market targeting based on data.