

APAS Cost of Production Backgrounder

November 15, 2022

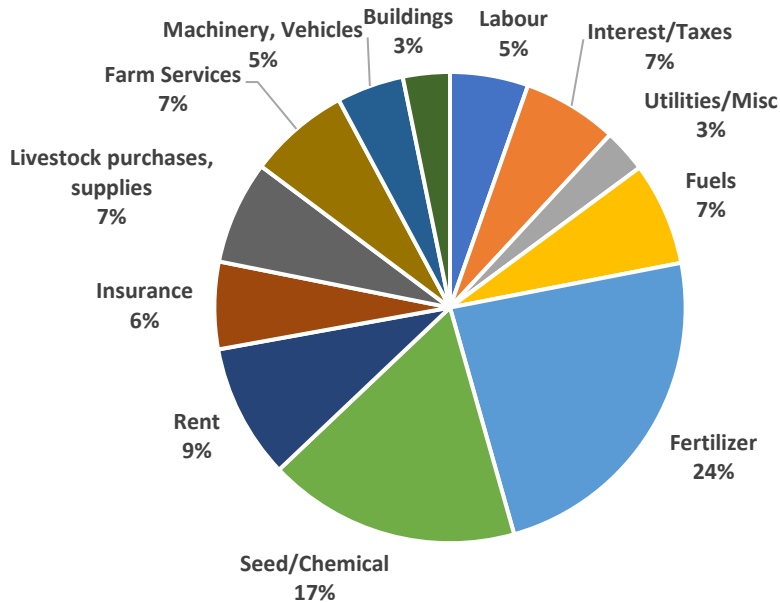
Introduction

Farm input costs and availability are key challenges facing Saskatchewan agricultural producers. Representatives at the 2022 Fall District meetings discussed how rising production costs and uncertain supplies of fertilizer and other farm inputs are impacting their businesses and farm communities. Producers have noted that the lack of price and supply transparency in farm input markets makes it difficult to make informed purchase decisions. It was also noted that these conditions were especially difficult for new entrants, farms in drought-affected areas, and livestock producers who are facing financial challenges following successive years of drought and stagnant commodity prices. Representatives attending the District 1 meeting in Weyburn passed a motion requesting APAS to research the factors driving costs of production. This backgrounder was developed as an initial overview of the public information that is currently available about input pricing and cost of production statistics.

Statistics Canada – Farm Operating Expense Reports

Statistics Canada publishes an annual report of farm operating costs and depreciation charges. According to this report, Saskatchewan farmers spent \$11,508,359,000 in cash expenditures and incurred an additional \$2,112,854 in depreciation charges on machinery and building purchases.ⁱ

2021 Sask farm operating expenses before depreciation



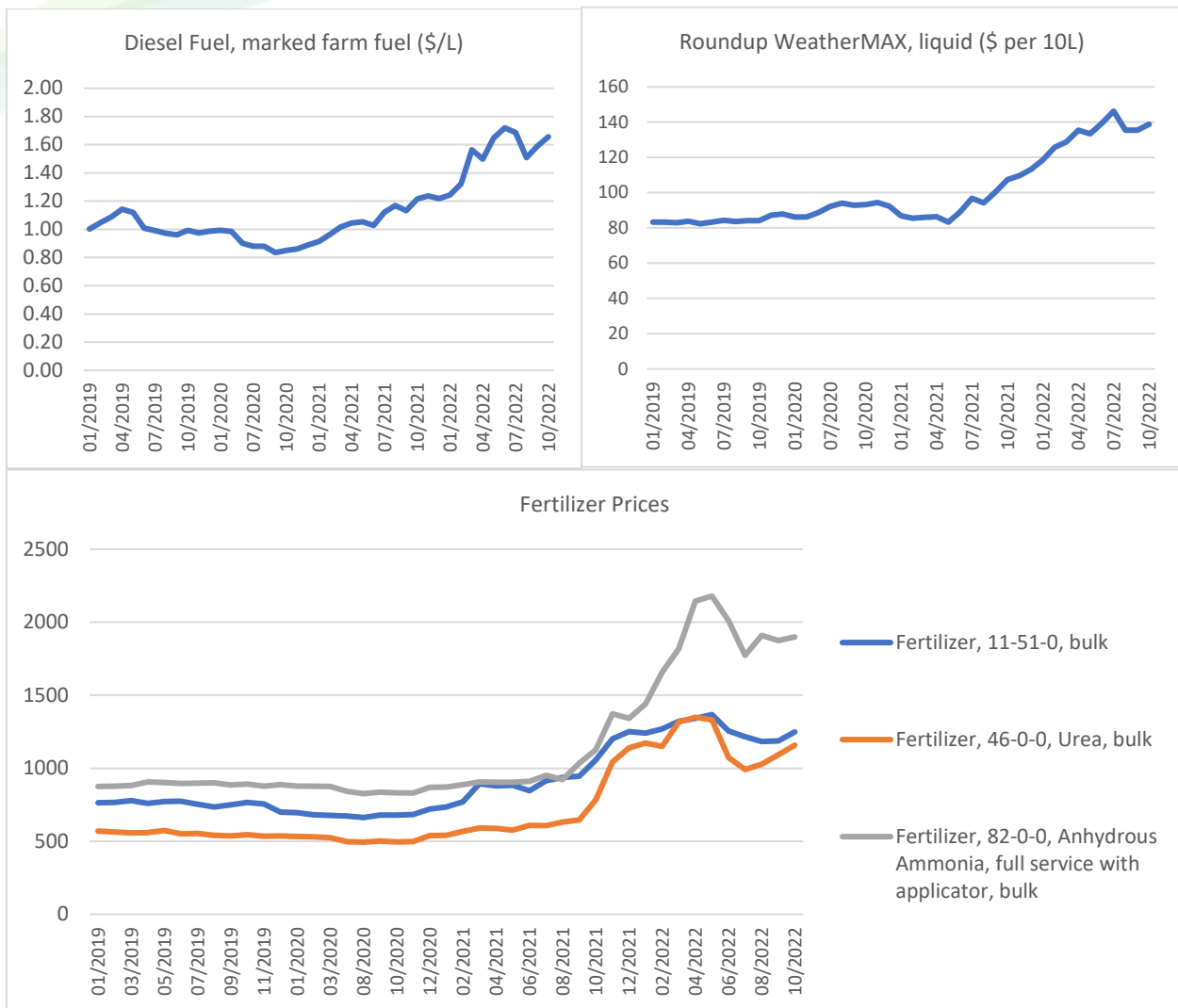
When compared to other expense categories, fertilizer purchases represented the largest share (24%) of total cash operating expenses, followed by seed and chemical

expenses (17%). In 2021, fertilizer purchases totaled \$2.69 Billion, 32% higher than in the previous year.

The \$11.5 Billion in farm expenses was the highest since records began in 1972, and 11% more than in 2020, representing the greatest year-over-year increase since 2012. The 2022 Survey will be available in May 2023.

Price Trends for key farm inputs – Alberta Farm Input Price Survey Data

The Alberta Ministry of Agriculture publishes retail prices for various farm input products in a survey posted on their website.ⁱⁱ This pricing data is often used to track retail price trends for western Canada because no equivalent data are collected in the other provinces. The graphs below use the Alberta Farm Input Price survey data to show price trends for farm diesel, glyphosate, and various fertilizer products.

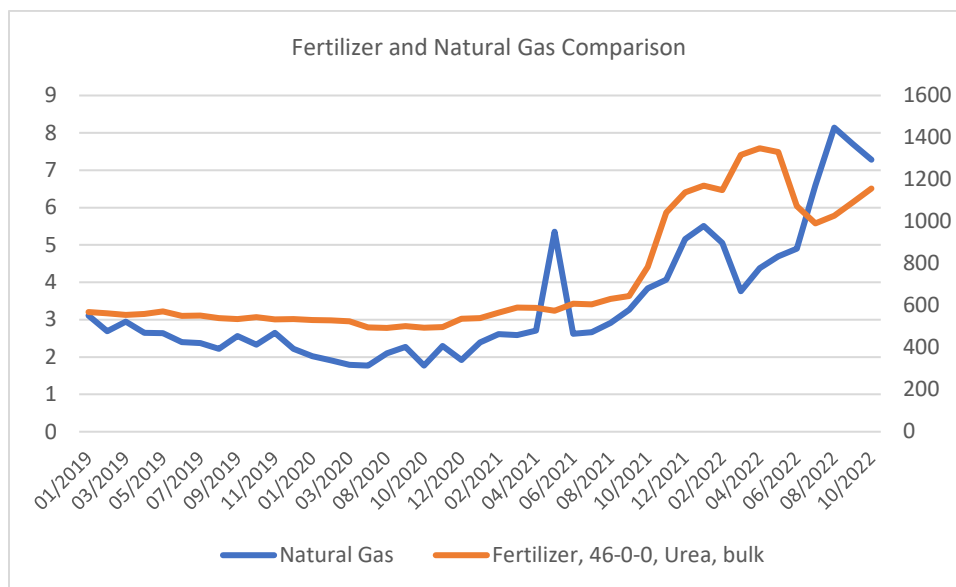


Diesel prices have increased significantly since January 2021. The average price between 2020 and 2019 was \$0.97/L, while the average price between Jan 2021 and Oct 2022 is \$1.35/L, peaking this past October at \$1.66/L. WeatherMAX Glyphosate

has followed a similar trajectory but with the most rapid price increases occurring in the latter half of 2021. Between May 2019 and May 2022, the price increased from \$82.39 for a 10L jug to \$133.76, a 62% increase. All fertilizer products have increased significantly over the past two years, especially nitrogen fertilizers. Comparing October 2019 prices to October 2022, MAP has increased 63%, urea has jumped 112% and anhydrous ammonia has increased 113%.

Factors Driving Input Costs

APAS Representatives want more information about the factors driving these significant cost increases. The graph compares natural gas futures prices (\$/GJ – left axis) and retail urea prices (\$/tonne – right axis).ⁱⁱⁱ Natural gas is the key input for the production of nitrogen fertilizer, and the prices are closely linked. However, at the beginning of 2021, prices of fertilizer grew at a faster rate than natural gas prices due to disruptions in key export and production markets. Western Canada is also a major producer of nitrogen fertilizer, and producers have longstanding concerns about retail prices for domestically produced fertilizer being set at international market levels with freight from overseas locations added to retail prices in Saskatchewan. For example, there has been much discussion recently increasing fertilizer prices in Central and Eastern Canada due to tariffs on imports from Russia, yet according to the University of Guelph’s Farm Input Monitoring Project, the average price for urea fertilizer in Ontario on October 5th was \$851 per tonne, while the average price for urea in Alberta for the months of September and October was \$1,124 per tonne.^{iv}

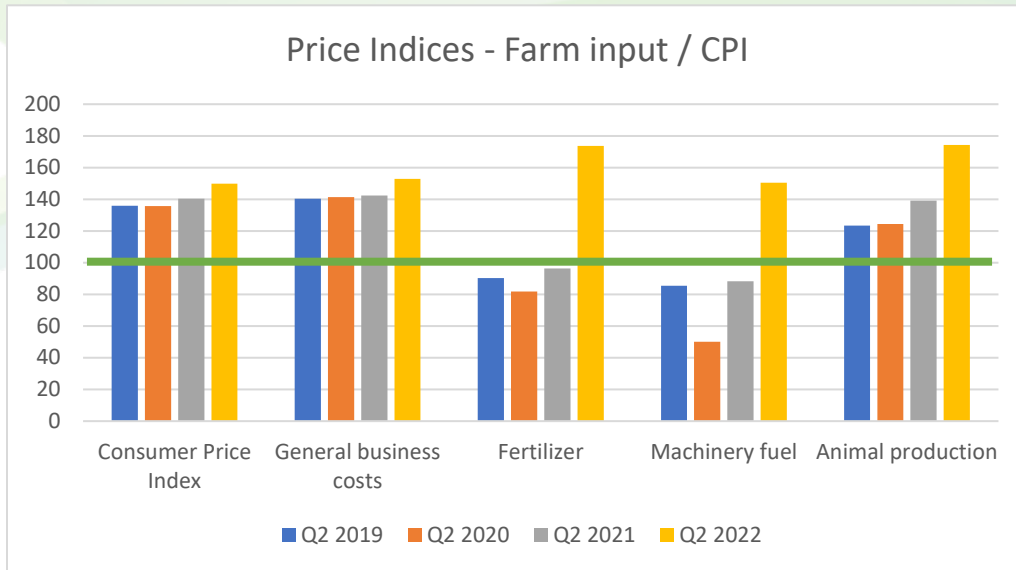


Statistics Canada – Farm Input Price Index

Statistics Canada’s “Farm Input Price Index” is an additional statistical tool to compare price trends between different expense categories.^v The last three years of data

demonstrate how prices for energy intensive inputs such as fuel and fertilizer products are rising at a much faster rate than other business costs and consumer goods. The farm input price index compares price trends over a time period, using 2012 prices as the base index “100”. The consumer price index (CPI) uses a similar measurement, with the 2002 as baseline year with the 100 index.^{vi}

The graph below shows the relative price index changes for select farm inputs, other farm business costs, and the consumer price index.



The farm input price index shows the extent to which farm input prices for fuel and fertilizer have increased significantly over the past year, relative to other business costs and consumer goods. The index for fertilizer has increased 92.5% since Q2 2019 while the index for fuel has increased 76.1% and the index for “other business costs” increased 8.9%. The CPI increased 10.1% over the same period.

The index for “animal production” also increased 41.1% since 2019. This increase is notable because commodity prices for cattle and other livestock have not increased to the same degree as grains and oilseeds products. According to market reports, average cattle prices for yearling steers and heifers in Q2 2022 were the same as or slightly below values in Q2 2019.^{vii}

Key Takeaways

- Saskatchewan farm cash expenses totalled \$11,508,359,000 in 2021, a record since reporting began in 1972.
- Fertilizer represents the single largest operating expenditure for producers and its share as a proportion of overall costs is increasing at faster rate than other expense categories.
- Farmers are particularly exposed to cost of production inflation due to their dependence on energy-intensive inputs, such as fuel and fertilizer, which are experiencing significant volatility, relative to other goods and services in current market conditions.
- Inflation in production costs represents several challenges for Saskatchewan producers who are price-takers in international markets and subject to weather and climate related production risks outside their control.
- The extreme price increase for critical farm inputs is concerning and warrants more information and analysis to better understand the factors causing price volatility.
- The rising cost of production is major concern for producers who want more transparency to better plan their business operations and make informed purchase decisions when buying inputs.

For more information

More research about cost of production and factors behind price trends is forthcoming. If you have questions about this report or wish to provide more information that can help this project proceed, please contact the APAS Policy Team at 306-789-7774 extension 4, email: policy@apas.ca

Sources

ⁱ Statistics Canada. Table 32-10-0049-01 Farm Operating Expenses and Depreciation Charges (x 1,000)

ⁱⁱ Alberta Farm Input Price Survey, Statistics and Data Development Section, Intergovernmental and Trade Relations Branch, Alberta Agriculture, Forestry and Rural Economic Development

ⁱⁱⁱ Data derived from US Energy Information Administration “Henry Hub Natural Gas Spot Price” <https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm> and Alberta Farm Input Price Survey <https://www.agric.gov.ab.ca/app21/farminputprices>

^{iv} Data derived from Ontario Farm Input Monitoring Project Survey #3 – October 5, 2022, Economic and Business Group Ridgetown Campus – U of G <https://www.ridgetownc.com/documents/> and Alberta Farm Input Price Survey <https://www.agric.gov.ab.ca/app21/farminputprices>

^v Statistics Canada. Table 18-10-0258-01 Farm input price index, quarterly

^{vi} Statistics Canada. Table 18-10-0004-01 Consumer Price Index, monthly, not seasonally adjusted

^{vii} See for AgriStability Price List, Saskatchewan Crop Insurance Corporation (Spring 2019 and 2022), available at: <https://www.scic.ca/agristability/prices>