2024 Energy and Fertilizer Report Outlook & Forecast

Brought to you by: OFA Ontario Federation of Agriculture

04-15-24

Highlights

- In our last report dated 11-24-23, we recommended a pass on booking diesel fuel forward with crude oil at $75/barrel with Ontario prices in a range of $1.31 - $1.40/litre (the buying opportunity was in March of 2023 when crude oil futures were testing a 6-year long-term channel bottom at $65/barrel) and Ontario farm diesel prices were trading below $1.00/litre. **The magic number is $1.00/litre or better that's a no brainer! At a minimum fill up your diesel fuel storage tanks ahead of the 2024 planting season to manage the risk and protect yourself from surging Ontario diesel fuel prices back to $2.00/litre!**

- **You need to find a Shell dealer in Ontario like Chalmers Fuels to allow you to use the "maximum cap contract" and book 1 to 2 years out.**

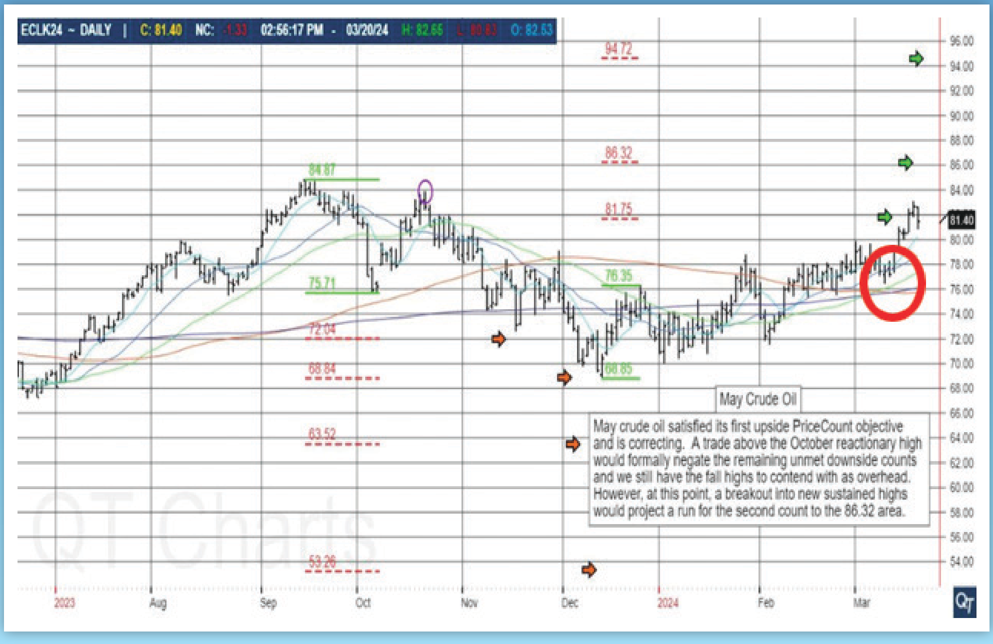
- Increased tensions in the Middle east with Iran (they can't risk oil exports to China) getting more involved could see much higher crude oil prices as the Middle east represents 31.3% of total global oil production and a disruption in the straight of Hormuth could send crude oil prices much higher! Prices hit U.S. $95/barrel when the war with Israel/Hamas first started on Oct. of 2023.

- We were booking propane at U.S. $0.60/gallon now $0.76 as it has a lot of correlation with crude oil prices. We were booking Natural Gas at U.S. $2.80 MMBtu now $1.68 **but we are highly recommending that farmers who have access to natural gas for drying corn book on a multi-year contract as prices have fallen to a 30+ year lows near U.S. $1.50 MMBtu.**

- With the ongoing war in Israel/Hamas and now a threat from Iran the risk is to the upside in crude oil futures as we enter the 2024 summer driving season. **The geopolitical tensions are rising and a weekly close above $89.93 could result in a summer 2024 high of $111/barrel in 1-2 months!**

- 2024 fertilizer prices bottomed in June-Sept of 2023 and have since risen 15+% approaching the 5-year average but are still lower than 2022 and 2023 despite lower corn and natural gas prices on continued strong global demand and global export supply restrictions from Russia and China. In our last report we said **"We would not take a "wait and see attitude" and book your 2024 fertilizer needs now. Do not wait until the spring of 2024." We however would wait on booking forward 2025 fertilizer needs until more is known about the U.S. corn production in 2024. $3.00/bu U.S. corn futures this fall will cause pain and result in lower fertilizer prices in 2025.**

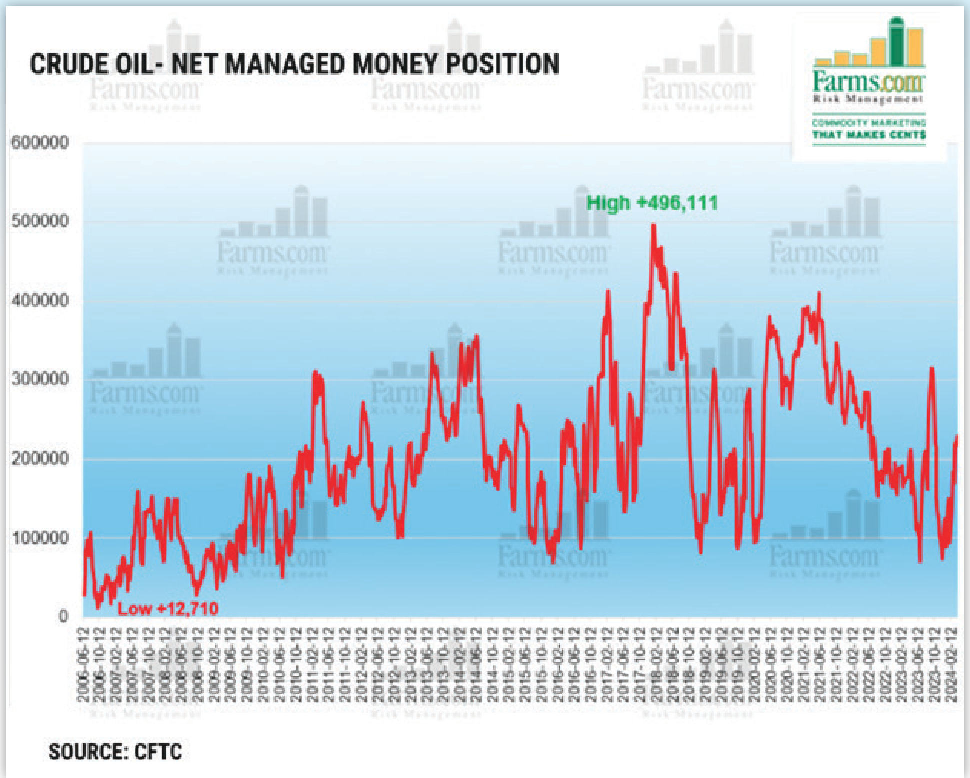
Drama in the Middle East lifts crude oil prices on growing geo-political risks



WTI crude oil futures spiked to new contract highs above $87/barrel +20.6% on the backdrop of rising demand and OPEC + production cuts since the start of 2023 as Iran, attacked Israel in what would be the biggest escalation of Middle East tensions since the start of the Israel-Hamas war last October. Iran wants to punish Israel for a missile attack on the Islamic Republic's consulate in Damascus, Syria, that killed seven Iranian military officials. Higher crude oil prices have been offset by weaker than expected U.S. PPI and higher U.S. crude stockpiles, but global supplies have been tightening as well. **If the escalation leads to a disruption in the Strait of Hormuz, a critical trade route for oil, prices could surge to $120 or $130 a barrel!** Technically, a golden cross pattern on the daily chart as of mid-March is bullish, that's when the 50-day moving average crosses above the 200-day moving average. **(Please see chart above)**

We have seen this movie before Iran is trapped

Its not in Irans best interest in disrupting crude oil exports and production to their key trading partner China nor does China want any issues as they are dealing with their own set of problems. We would not be surprised to see even more sanctions on top of the past 20 years worth of sanctions on Iran. The Iran-China relationship could have a muted impact on the crude oil market.



The average gains in the 1st half of the year could see WTI crude oil rise to $100/barrel with the fund spec length but they are nowhere near the record length from 2018 so there is more room to the upside in prices. As you get into May/June you could see some unwinding of these long fund positions. **(Please see chart on the left)**

The market was originally expecting the U.S. Federal Reserve to start cutting rates in March of 2023, but higher than expected sticky/stubborn inflation has delayed the first cut to September. Lower interest rates typically boost economic growth, which can lead to higher crude demand. Further melt up in crude oil prices will reawaken inflationary concerns. Inflation could stay elevated for some time which could dampen global gasoline demand.

Continued global uncertainty and increasing geo-politics , including Russia's war against Ukraine, OPEC+ supply cuts, the Israel-Hamas-Iran war, and relatively low levels of U.S. diesel fuel reserves could keep prices elevated for the next 1-3 months.

Farmers in Ontario need to find a local Shell fuel dealer like Chalmers Fuels to allow them to take advantage of the "maximum cap contract" and book 1 to 2 years out. The program works we have been booking diesel fuel forward since 2019 below $1.00/liter! We do not want to be chasing this market but if you need diesel fuel for the upcoming 2024 planting just fill up your tanks for now to manage the risk.

We expect crude oil prices to stay higher for longer. Lower interest rates in the second half of 2024 could spur more gasoline demand growth and keep prices much higher than many are forecasting. We are projecting a target of $100 - $111/barrel by the end of Q2 of 24 with a drop to $75 or lower by the end of 2024. A retest of the 6+ year channel support at $65 would be another buying opportunity to book diesel fuel forward. (Please see chart below)

2024 CRUDE OIL FUTURES PRICE TARGET & OUTLOOK AS OF 04-15-24

Farms.com Risk Management — COMMODITY MARKETING THAT MAKES CENT$

PRICE RANGE U.S. $/BARREL	
End of Q2 24	$100 - $111.00
End of 2024	$70.00 - $75.00

SOURCE: FARMS.COM RISK MANAGEMENT

Natural Gas / Propane

Higher crude oil prices adding to higher propane prices

After falling 67.2% from the peak in 2022 U.S. propane prices are up from the lows in June of 2023 gaining 31.3%. Higher crude oil prices to $100 in 2024 most likely sends propane prices back to U.S. $1.00/gallon. A colder-than-normal winter will reduce propane inventories, which can put upward pressure on prices. Alternatively, a warmer-than-normal winter usually puts downward pressure on U.S. prices. **(Please see chart on the right)**

2024 May U.S. Propane Weekly Futures Chart

Source: QTPlus

A bottom in European TTF Natural gas futures is also a bottom in the U.S. natural gas futures. **(Please see chart below)**

Fundamentally, an oversupplied U.S. market with a lack of a winter that did not show up resulted in much lower prices. Record-high U.S. natural gas production, flat consumption, and rising natural gas inventories up 11% vs. the 5-year average contributed to lower prices in 2023 compared with 2022. In fact, the EIA forecast that U.S. natural gas storage inventories were 39% higher at the end of the withdrawal season (November–March) than the five-year (2019–2023) average. Add a warmer than normal past winter and the path of least resistance was lower.

2024 Weekly European TTF Natural Gas Futures

Source: Bar Charts

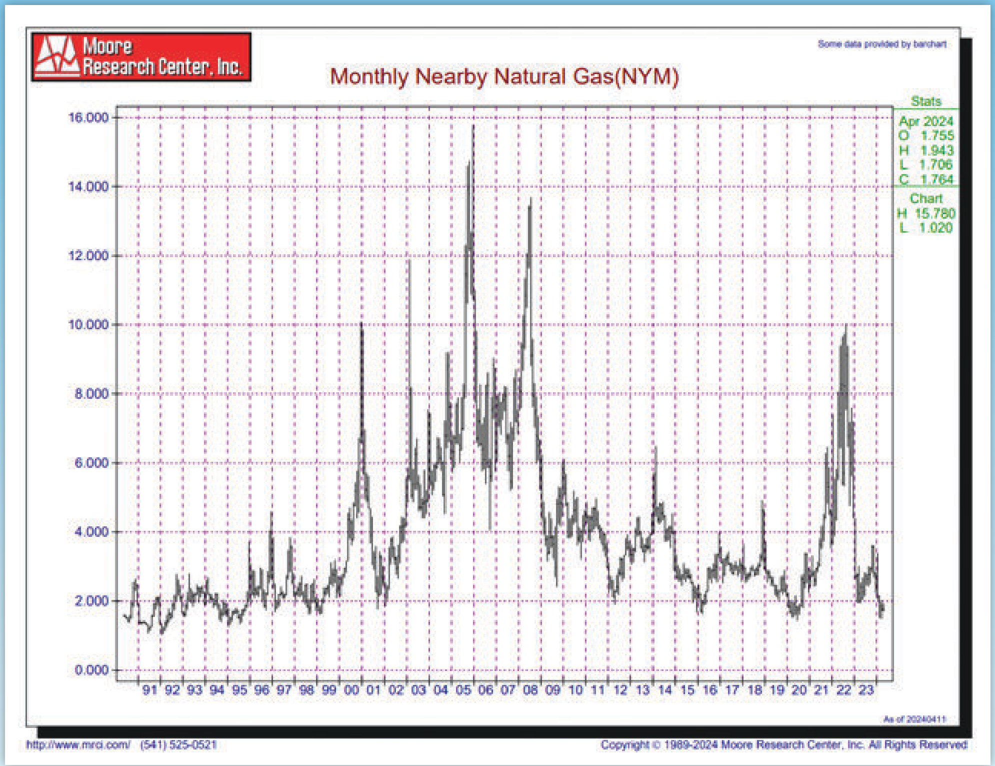
U.S. natural gas prices plunge to a multi-year 30+ year lows!

U.S. natural gas futures are down 82.4% since the peak in August of 2022 and down 25.7% since the start of 2023.

Technically, futures will eventually revert back to the mean/average by the end of 2024 to the 200-day moving average at $2.707 MMBtu (a descending line).

Despite the lower prices U.S. LNG exports are still expected to double in the next 2 years. Global demand of natural gas expected to be up by 50% by 2040.

A hotter/dryer weather forecast as the 2024 planting season nears could see futures resume the downside once again after a brief consolidative bounce **but U.S. $1.50/MMBtu or lower is a buying opportunity as the worst is behind us with a bottom in the $1.40 - $1.75 range.** **(Please see chart below)**



If you use LP (Liquified Propane) and do not have access to natural gas it's too late to book propane as you are chasing it as it follows crude oil futures closely and has been rising alongside it. The buying opportunity was at the end of 23 or last June at $0.55 to $0.60/gallon now U.S. $0.75 to $0.80/gallon.

If you do have access to natural gas to dry corn bushels now is the time to manage the risk and protect yourself from higher prices in the future. A 24/25 100% La Nina forecast by the fall of 2024 could provide for a very cold and heavy snowfall winter and drive a short-term spike in prices due to surging demand from adverse weather that could last for a brief period of time.

Fertilizer

Fertilizer prices bottomed at the end of 2023 but are now up over 15+% by the end of Q1 of 24

U.S. WHOLESALE FERTILIZER PRICES (IN U.S. $ PER TON)

NUTRIENT / FUEL	24-Aug-23	04-Apr-24	CHANGE Vs. AUGUST 24th, 2023	CHANGE VS. JAN. 1, 2023	CHANGE VS. JAN. 1, 2022
Anhydrous	$589.11	$801.25	+36.01%	-39%	-46%
DAP	$672.50	759.38	+12.92%	-12%	-11%
MAP	$699.57	$776.67	+11.02%	-14%	-14%
Potash	$492.80	$522.25	+5.98%	-29%	-35%
Liquid Nitrogen	$353.00	$384.50	+8.92%	-38%	-34%
Urea	$457.50	$539.60	+17.95%	-24%	-41%
Farm Diesel	$3.66	$3.40	-7.10%	-6%	+19%

SOURCE: USDA

Fertilizer prices remain below the 5-year average and below both years 2022 and 2023 but have started to slowly move back up (potash down 20%) despite lower corn prices that are down 25% since June of 23 and lower natural gas prices. Continued strong global demand and supplies restrictions from both Rusia and China are offsetting. But a return of Chinese urea supplies before May could help dampen global prices. Processed phosphate prices are decreasing with increased Chinese exports. Global ammonia markets remain in surplus with lack of industrial demand. **Fertilizer supplies remain tight with an early spring 2024 planting season.** There are still areas/regions in North America that are struggling with resupply. **(Please see chart on the right)**

Growing corn in 2024 is slightly less expensive than 2023 but the USDA ERS reported that the average U.S. fertilizer cost from 2006 to 2021 was approximately $125 per acre, without adjusting for inflation. This figure saw a sharp increase beginning in 2022, reaching $225.78 per acre, before declining to an estimated $186.73 per acre in 2023. This cost of fertilizer rose 89% from 2021 to 2022, followed by a 17% decrease from 2022 to 2023. Fertilizer expenses made up about 22% of the total per-acre corn production cost from 2006 to 2016. This percentage dropped to an average of 17% from 2017 to 2021, as fertilizer prices were historically low. The increase in prices in 2022 elevated fertilizer costs to 24% of total costs, but this was still lower than the peak in 2008 at 26%.

There could be some UAN supply disruptions and shortages this spring with the Francis Scott Key Bridge collapse in Baltimore and in turn, could lead to higher prices. The Port of Baltimore in the U.S. handles about 10% of the annual UAN imports to the U.S., mostly from Russia but few other nutrients are imported to Baltimore, according to Chris Lawson, head of fertilizer for consulting firm CRU.

Middle East Escalation Could Lead to Urea Price Rise

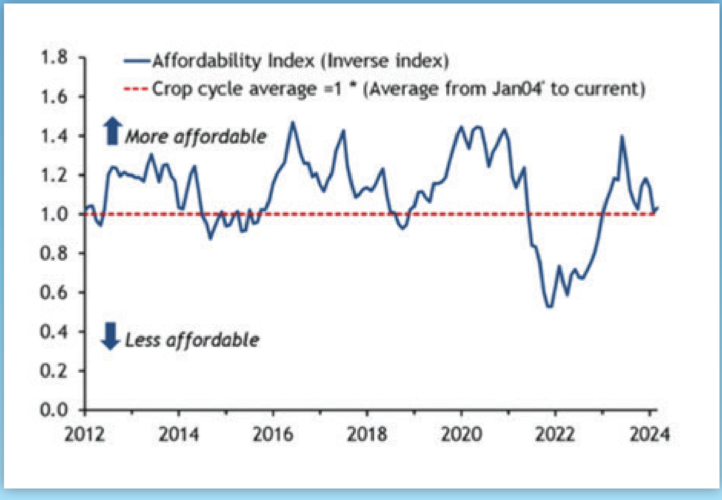
The increased tensions in the Midde East are an increasing concern near-term. About 25% of global urea exports come from the Middle East and the geopolitical tension and instability could sadly be what saves the urea price from falling off the cliff. The India tender was a big letdown for the urea producers in that only 724,000 tonnes was committed by the trade. A robust India purchase would have been a perfect outlet for keeping urea prices from falling further.

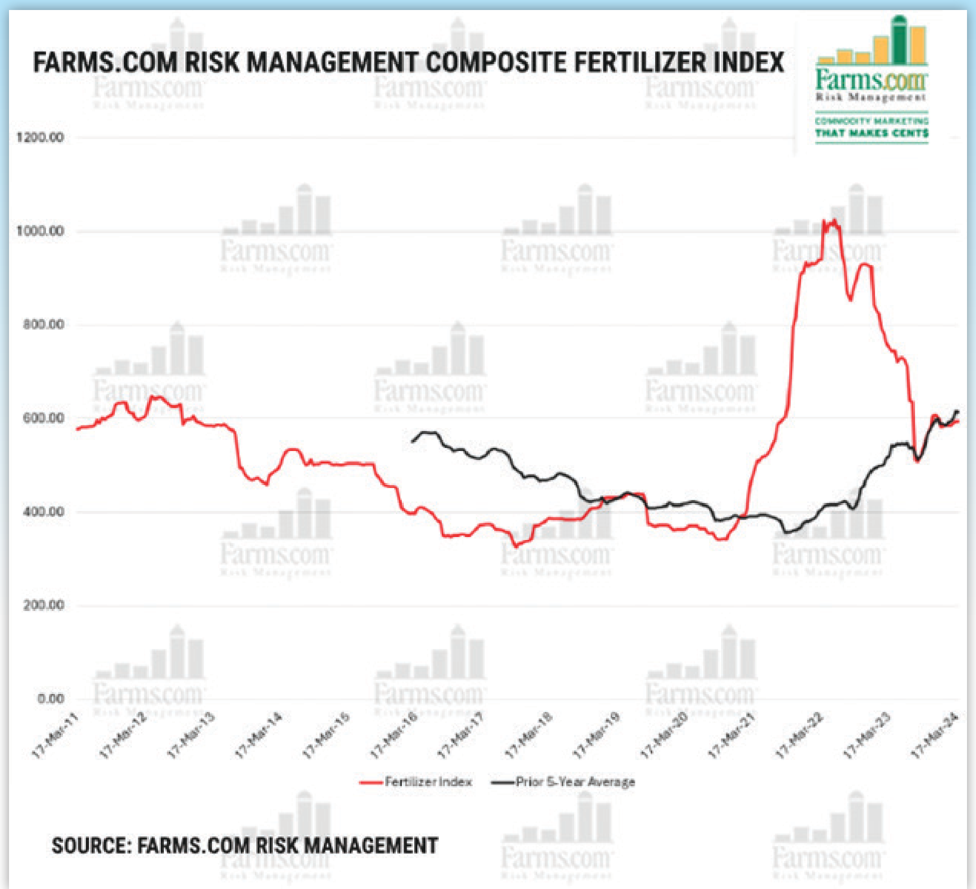
Lower U.S. corn prices this fall could lead to lower fertilizer costs in 2025

A 2024 normal U.S. growing season could see corn supplies increase and drive prices even lower with some forecasting a 3 in front of futures. This would cause a lot of pain for farmers and could be the final nail in the coffin to much lower fertilizer prices in 2025 but a looming La Nina weather pattern may have a different outcome.

Global fertilizer product affordability trended lower through most of the first quarter of 2024, as crop prices slid on higher expected global supplies, while nitrogen and phosphate fertilizers remained at high levels. High urea and phosphate prices weigh on affordability. Global fertilizer prices are projected to remain elevated but lower than last year. (Please see chart on the right)

The continued 2024 drought and below-average subsoil moisture heading into fall application could dampen fertilizer demand and applications. Higher 2024 corn yields could also weigh on prices in 2025. (Please see chart below)





Taking a "wait and see attitude" on purchasing fertilizer until the spring of 2024 did not pay off as it cost farmers more money. However, we are taking a "wait and see attitude" on purchasing 2025 fertilizer needs until more is known about the 2024 U.S. corn production and weather.

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