MOE AGOSTINO & THE COMMODITY RESEARCH TEAM

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COMMODITY MARKETING THAT MAKES CENT$

15 YEARS IN SERVICE

2018 / 2019

Energy and Fertilizer Report & Outlook

Brought to you by: OFA Ontario Federation of Agriculture

Energy

Highlights

- Oversupply concerns, funds being too long driven by fears over Iran sanctions, U.S./ China trade tensions, rising interest rates, weak global currencies (vs. a strong U.S. $ Index), and a wider than expected stock market sell-off (to shed risky assets in the wake of growing concerns over a global economic slowdown) continues to put pressure on crude oil prices as it plunges to its worst performance on record down over 28% since early October.

- Technically speaking the RSI (Relative Strength Index) for crude oil futures is at 13. That is technically oversold and due for a dead cat bounce as prices test the 2016 long-term support channel at $57.51. This is a pivot point that could see a bounce back to $69.50 by years end and low 80's by summer of 2019. Or, a close and confirmation lower means the next lower target is $43.75, which could be reached in the next 3-5 months. This is very unlikely, especially if OPEC decides to cut production by 1.4 million barrels per day at their next meeting on December 6.

- Funds overreacted to the topside on fear and are now overreacting to the downside. **Ultimately, the pendulum will swing to a median or average, but it is providing an unexpected opportunity to book diesel fuel with the drop-in prices!**

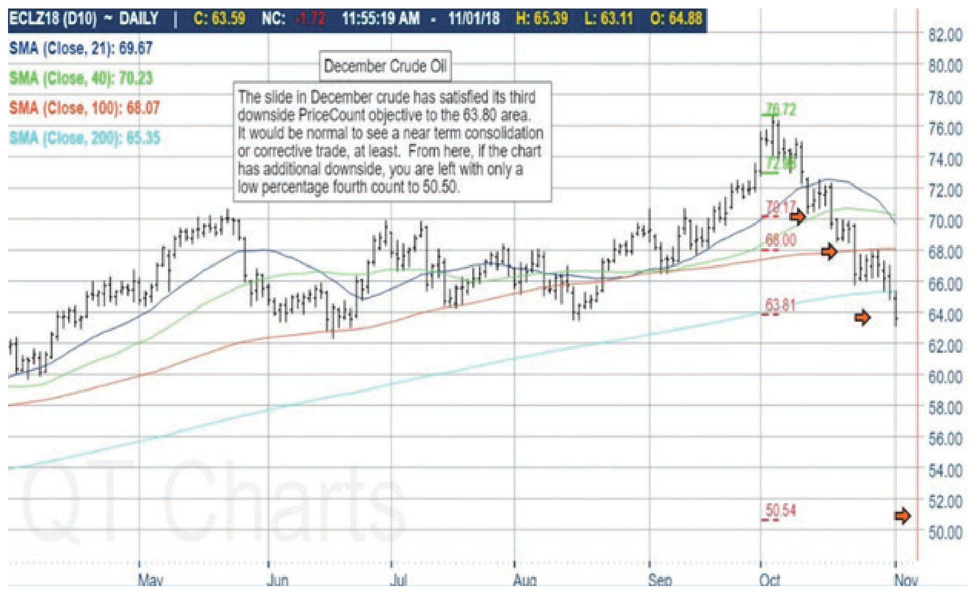
- **Some local markets in Ontario are reporting gas pump prices below $1.00/liter (Doug Ford's elimination of the 2017 carbon tax $4.6 cents/liter also helps). It's time to fill up your storage tanks and look into booking 100% of your diesel fuel needs forward through the end of summer of 2019.**

- **Reward the unexpected early Christmas bonus discount of 7.4% on farm diesel fuel prices but do not chase natural gas prices higher overpriced not unusual this time of the year to spike higher while propane prices near 2018 lows!**

- **The rise in fertilizer prices may just be the beginning despite a lower CDN $ making inputs more expensive. We are advising that producers solidify their fertilizer purchase plan now to help widen profit margins as the cost of inputs becomes a greater burden on the production budget. Protecting a profitable price and keeping break-even's in mind moving forward is critical. Shop around to find the best possible deal!**

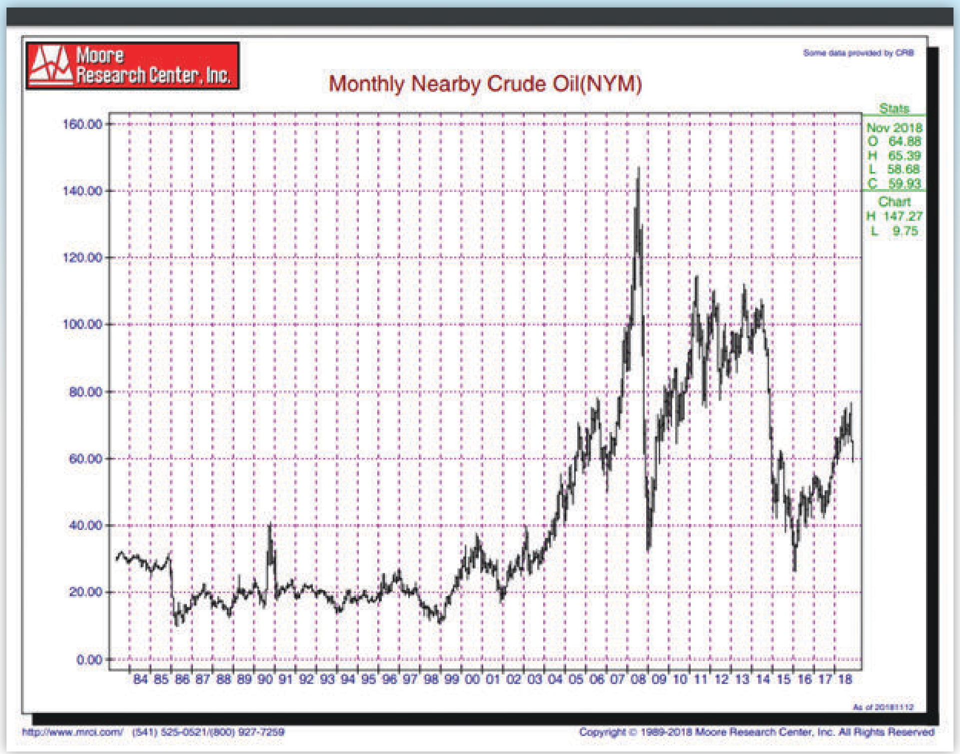
Oversupply Concerns are Weighing on Crude Oil Prices

Crude oil futures are in bear market territory- down over 28.0% since early October (performance unsustainable)- after peaking at U.S. $76.72 on October 3, 2018. This is down over $21.000/barrel and the worst performance on record. This fall has wiped its gains for the year as oil supplies grow much faster than demand!



Source: www.qtmarketcenter.com

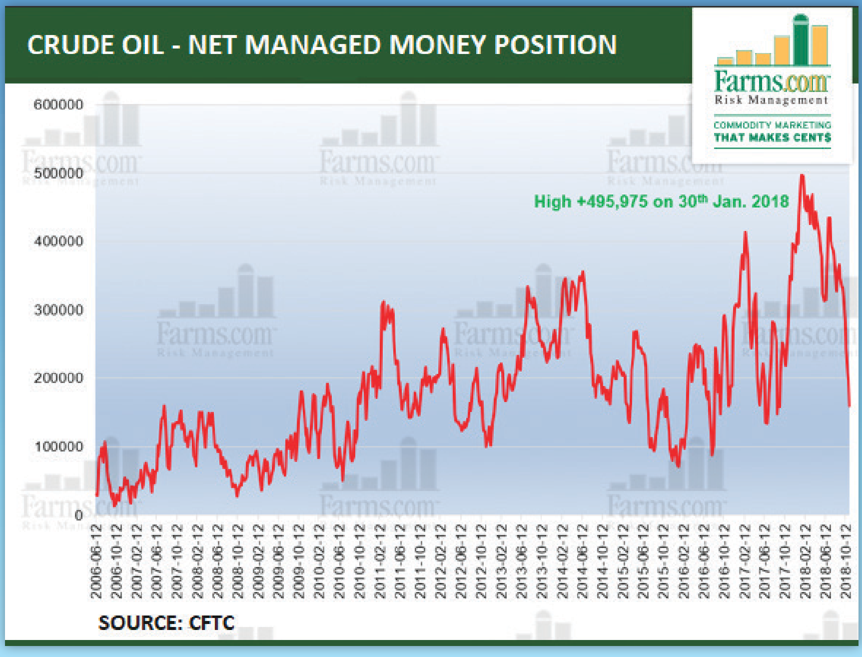
Since mid-June of 2017 crude prices jumped over $31/barrel on increased demand and an OPEC supply cap of 1.8 million barrels per day that started in January of 2017. Fears over Iran Sanctions propelled prices even higher with some projecting prices as high as $100/barrel but fears over a global economic slowdown in demand and oversupply in 2019 took hold and prices plummeting very unexpectedly as investors had piled on too many long positions. **(Please see chart above)**



Crude oil is testing its long-term support area at $57.51- a 2016 channel bottom. This area can contain broader selling pressure into 2019. Once tested it is considered a pivot point, which could create a bottom and send oil prices back up to $69.50 by year end and lower 80's by summer of 2019. However, if we close and confirm below this pivot point of $57.51, the next target is $43.75 within 3-5 months. **(Please see chart on the left)**

With the technicals getting very oversold- near-term RSI (Relative Strength Index) at 13- as investors throw in the towel (feels like capitulation or a blow off bottom) it usually means a potential dead cat bounce soon as the markets are now overreacting to the downside. The managed money funds had piled on too many long positions thinking crude oil could hit $100 by year end on Iran sanctions limiting exports by as much as 4 million barrels per day.

(Please see chart on the right)



Higher crude oil prices were driven by fear not supply shortages

The oil market emotionally overreacted to the topside in anticipation of the announcement on IRAN sanctions driven by fear rather than by real shortages. The sudden drop in oil prices from 4-year highs last month has forced OPEC and a group of crude exporters including Russia to rethink how they are managing the market. Saudi Arabia's energy minister said OPEC and its allies may need to cut production by as much as 1 million barrels a day to bring supply and demand back in balance, but Trump is depending on top OPEC producer Saudi Arabia to pump more oil to offset the impact of U.S. sanctions on Iran. The sanctions on Iran has wiped out about 1 million bpd of Iranian crude exports but the Trump administration is allowing eight nations to continue importing some Iranian oil over the next 180 days, further easing fears of impending shortages. Trump has Tweeted several times this year against OPEC and blaming them for the higher prices and ordered members to take steps to lower the cost of crude prices.

Production cuts by OPEC a surprise

OPEC's supply cap to end a global glut of oil worked and since then, Russia's output has hit a post-Soviet era high, and Saudi Arabia said it planned to pump at a record 11 million bpd in November. Meanwhile, U.S. production has topped 11 million bpd, surpassing Russian output to make the United States the world's top producer. The group agreed in June to restore some of that output after its members cut more deeply than they intended and as oil prices hit 3-½-year highs. Producers with spare capacity have been pumping more oil since then and thoughts of further production cuts appears to be an abrupt turnabout from OPEC's September meeting, when some of the world's leading oil producers were talking about pumping extra oil onto the market to help soothe intensifying supply shock fears. Saudi Arabia, OPEC's biggest producer and the world's top crude exporter, intends to cut shipments by 500,000 barrels a day in December. The next full OPEC meeting, when any policy decision will be voted on, is scheduled to take place in Vienna, Austria on December 6th, 2018 **as the cartel is now considering cutting 1.4 million barrels per day to bring balance to the oil markets in 2019.**

OPEC has underestimated growth in U.S. Shale Production

There's a ceiling on U.S. production growth as the growth in new drill rigs has peaked. According to Michael Kelly, head of exploration and production research at Seaport Global Securities, says quarterly earnings report showed that drillers are focused on generating free cash flow and high corporate earnings, rather than growing output at all cost.

Venezuela's production continued its terminal decline amid the country's ongoing economic free-fall, dropping by 40,000 bpd to below 1.2 million bpd.

2019 crude oil demand forecast lower for the 4th consecutive month

OPEC lowered its 2019 demand for crude oil outlook lower for the 4th consecutive month to 1.29 million barrels per day- down 70,000 from its projection last month and down 160,000 since its July forecast of 1.45 million per day.

However, longer term they expect total primary energy demand to surge 33% from 2015 levels with an average annual growth rate of 2% reaching 365 million barrels per day by 2040 largely from developing nations like China and India and represent 50% of the energy demand growth.

According to the EIA, U.S. crude oil production reached 11.3 million b/d in August and was 290,000 b/d higher than expected. This higher level of production raised the baseline for EIA's forecast for 2019 crude oil production, and EIA now expects U.S. crude oil production to average 12.1 million b/d in 2019 compared with a forecast of 11.8 million b/d in the October. Demand forecast is now set to average 1.4 million b/d in 2019, which is 100,000 b/d lower than forecast in the October.

Global Oil Shortage by mid-2020's

IEA (International Energy Association) warns that a global oil shortage is coming by the mid-2020s and U.S. shale oil producers would need to add the equivalent of Russia's entire crude oil production within just seven years to head off the global shortage. There will be robust demand growth for oil over the next few years driven by the rise in industry, aviation, and petrochemical needs but because of the current low number of newly approved drilling projects in countries such as Saudi Arabia or Russia, the world can expect a supply crunch. U.S. shale will be tested and would need to add 10 million barrels per day to make up the gap.

THE
BOTTOM-LINE

OPEC underestimated U.S. shale growth and rising oil supplies from the United States and forecasts for weaker-than-expected demand growth have kept pressure on the crude oil market. Also, forecasts for weaker-than-expected demand growth have kept pressure on the market. The markets are now anticipating that the loss of oil exports from Iran will be less than originally expected. Signs that OPEC and several other oil producers including Russia could soon cut output will eventually put a floor under the market. Saudi Arabia, Russia and the U.S., the world's top three exporters have more than compensated for lost Iranian barrels since the start of the month.

Oil demand is still expected to surpass more than 100 million barrels per day next year, but forecasters have steadily revised their outlook for demand growth lower. Even as the demand outlook weakens, OPEC and Russia have been hiking output. And, supplies are surging from the United States.

Ultimately, the pendulum will swing back to a median or average, but lower prices are providing an unexpected opportunity to book a drop in farm diesel fuel prices. Some local markets in Ontario are reporting gas pump prices below $1.00/liter (Doug Ford's elimination of the 2017 carbon tax of $4.6 cents/liter also helps). It's time to fill up your tanks and look into booking 100% of your diesel fuel needs forward through the end of summer of 2019.

Think of this as an early Christmas bonus with your farm diesel prices selling off with a discount of 7.4%. Reward the decline, buy your farm diesel fuel as the risk is to the upside moving forward. Fears over a global slowdown in 2019 is also unwarranted and overblown! (Please see chart below)

In our last report in March of 2018 we reported that "the chances of crude oil prices soaring to $100/barrel anytime soon look very unlikely!" Crude oil prices did surpass our high target of $65 for the end of 2nd quarter, but its back to our year end outlook for $55 - $60. (Please see chart below)

NEW 2018 CRUDE OIL FUTURE PRICE TARGETS & OUTLOOK ALERT AS OF 03-16-18

TREND	SENTIMENT	TARGET RANGE
2nd Quarter 2018	BULLISH	$60 - $65
End of Year 2018	BEARISH	$55- $60

SOURCE: FARMS.COM RISK MANAGEMENT

Seasonally, we can move lower through the 1st quarter of 2019 but most of the bearish news is priced in or close to being factored in. So, look for prices to rebound back to $65 - $70/barrel, especially if OPEC decides to cut production next month to balance the markets in 2019. The market remains extremely oversold near-term and the funds may exhaust the selling of long positions. (Please see chart below)

NEW 2019 CRUDE OIL FUTURE PRICE TARGETS & OUTLOOK ALERT AS OF 11-13-18

TREND	SENTIMENT	TARGET RANGE
End of Year 2018	BEARISH	$55- $60
End of 1st Quarter 2019	BULLISH	$65 - $70

SOURCE: FARMS.COM RISK MANAGEMENT

Natural Gas / Propane

Low U.S. natural gas stockpiles and earlier than colder forecast spooking investors

Natural gas prices since early November (just 9 trading days) have surged over +28% up U.S. $1.57 per million British thermal units to the highest levels not seen since 2014 to average U.S. $4.84! **The parabolic spike higher in natural gas prices is not unusual this time of the year but is making the drop in crude oil prices look modest and could also impact higher heating costs and fertilizer prices in the coming weeks and months!**

According to Barclays, low U.S. gas stockpiles at a 10 year low, higher-than-usual power demand during a warm autumn and nuclear power plant outages are all driving the rally despite a traditional weak period for natural gas demand and booming production. The market is trying to ration demand and protect its ground. But its all about the future and the prospects for a much colder than expected November forecast that is expected to last longer which has sent the speculators buying with a frenzy in quick order.

The amount of natural gas in U.S. storage is 16% below the five-year average and the lowest level to start the winter heating season in 15 years! Nevertheless, U.S. natural gas production is rising at a record-breaking pace of about 9 billion cubic feet per day and so is gas demand for power generation at a record. Three new U.S. liquefied natural gas export facilities are scheduled to open through the first quarter of 2019 but until than natural gas prices are going to provide investors a roller coaster ride. **(Please see chart below)**

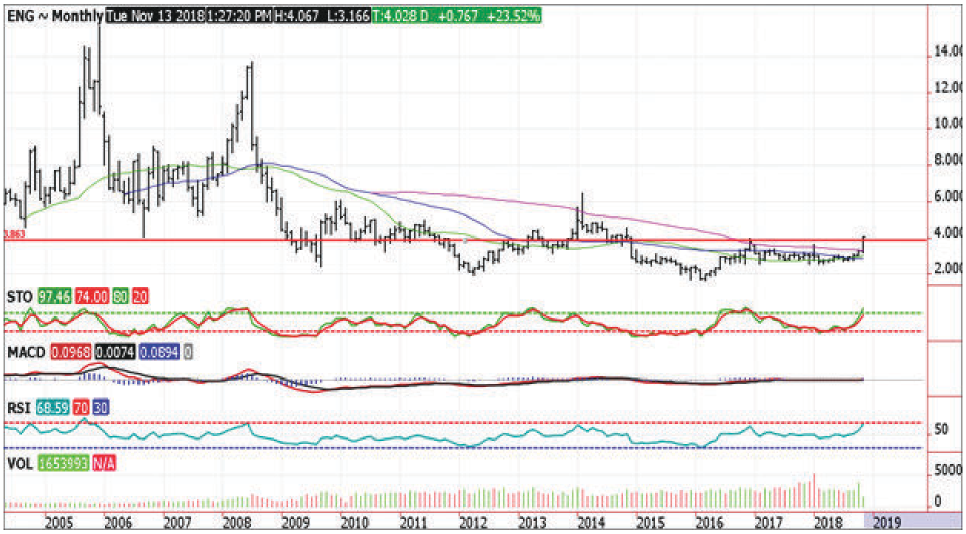
With an RSI above 77 natural gas prices are overextended, over bought and overvalued short-term. In recent years, the U.S. has started the heating season with record supplies that were largely depleted by the end of the season. **The risk is that if there is a polar vortex this year, with extreme cold through the winter, prices could double or even triple for a very brief period like in 2014 or 2003!**

Lower crude oil prices weighing on propane

Lower crude oil prices are weighing on propane prices down 30% since peaking in early September and a lack of growth in supplies and domestic demand will continue to put downward pressure on prices not seen since early 2018.

Growing propane supplies in the U.S. and Canada, coupled with limited growth prospects in domestic demand, have resulted in propane-pricing disparities that have made U.S. and Canadian propane attractive to international markets. The average spread between the posted Saudi Aramco contract price and the Mont Belvieu price widened to 65%, as propane recoveries by gas processing plants ramped up.

2018 December Monthly Natural Gas Chart



Source: www.qtplus.com

In the residential and commercial sector, propane remains under pressure from natural gas and electricity to displace it as the fuel of choice for heating and cooking. In the industrial sector, where propane has traditionally been the preferred fuel for forklifts in warehouses and at ports, the switch to electric forklifts has reduced propane's market. In the agricultural sector, propane is mostly used for corn and soybean crop drying, and wetter than expected harvest has increased demand for drying purposes.

THE BOTTOM-LINE

Forecasts of an extended winter cold snap, with its onset being earlier than normal, is spooking the markets and sending natural gas prices surging to a near four-year high but plunging crude oil prices are weighing on propane prices near a 2018 low. Investors' increasing worries and fear about rising natural gas demand at a time when U.S. supplies are at the lowest level (to start the winter heating season) in 15 years and below the 5-year average are the key reasons. The last time supplies were this low in the first week of November was in 2003, and that year natural gas prices hit $12 per mmbtu. With U.S. natural gas storage levels so low, prices are very sensitive to colder than expected weather this early in the season. But these issues will soon pass. So do not chase the market higher as history shows that the price spikes are usually short lived in nature.

Fertilizer

U.S. fertilizer prices historically still at bottom 25% of the last 6 years but rising

U.S. fertilizer prices continued to recover and rise in 2018 after hitting lows in September/October of 2017. However, to keep prices in perspective we are still trading at the bottom 25% of the past 6 years' worth of data. **(Please see chart below)**

Higher nitrogen intensive crops in 2019 to support prices and demand

U.S. corn plantings in the U.S. will rise by as much as 3-4 million acres in 2019 as will sorghum acres all nitrogen intensive crops which help support nitrogen demand and prices in 2019 unless U.S./China trade tensions are resolved.

China remains a "wildcard"

Urea exports out of China reached 13.8 million tons in 2015 but exports have since fallen below 5 million tons in 2017 due to higher feed stalk prices, stricter environmental regulation policies, a government focused on domestic consumption and plant operating rates that fell below 60%. No one wants to purchase Iran urea as they look elsewhere and among other things ammonia imports to China will double on the year as they plan to switch to more use of natural gas and import as much as 40% of their needs to bring plants back up to full capacity.

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

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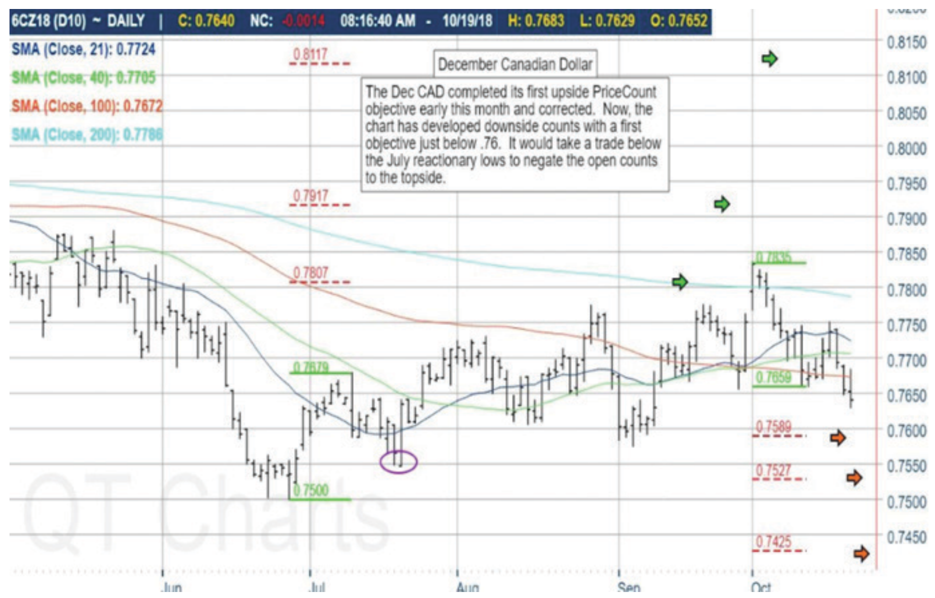
NUTRIENT / FUEL	08-Nov-18	15-Mar-18	% CHANGE NOV vs. MAR	CHANGE SINCE END-2017	LOW SINCE MARCH 2011	AVG SINCE MARCH 2011	HIGH SINCE MARCH 2011
Anhydrous	$524.82	$521.80	0.58%	7.05%	$398.10	$676.66	$892.50
DAP	$521.92	$480.69	8.58%	12.36%	$414.21	$545.72	$710.00
MAP	$510.25	$491.67	3.78%	7.80%	$428.33	$564.35	$731.25
Potash	$374.43	$351.67	6.47%	8.66%	$287.61	$462.76	$645.71
Liquid Nitrogen	$245.22	$235.03	4.34%	7.50%	$207.00	$312.91	$429.51
Urea	$412.50	$369.83	11.54%	15.93%	$300.00	$458.55	$750.21
Farm Diesel	$2.83	$2.46	15.04%	14.11%	$1.49	$2.87	$3.76

SOURCE: USDA

THE BOTTOM-LINE

Higher fertilizer prices could be just the beginning of the rise as we head into 2019. In our last report in March of 2018, we recommended that producers "catch up and book your spring/summer 2018 fertilizer needs" when prices were on average 3.12% lower than current U.S. prices.



Source: www.qtplus.com

The CDN $ has resumed its downtrend since peaking in late September on hopes of a NAFTA trade deal. But, a stronger than expected U.S $ Index is weighing and is making Ontario fertilizer prices more expensive. (Please see chart above)

We are advising that producers solidify their fertilizer purchase plan now! Relying on the cash market will be a dangerous game and while there is risk in playing the paper game, you may find that an intentional forward-thinking plan will give you a great deal of peace of mind and help you widen your profit margins as the cost of inputs becomes a greater burden on the production budget. Protecting a profitable price and keeping break-even's in mind moving forward is critical. Shop around to find the best possible deal! (Please see chart on the left)

WEEKLY AVERAGE WHOLESALE DIESEL PRICES IN 2018 (AS OF 13 NOV. 2018)

(in cents/litre)	Current	Beginning of 2018	Change in 2018	2018 High
Ontario	**86.94**	85.41	+1.53	92.24

SOURCE: NATURAL RESOURCES CANADA

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