



#### The Markets in Review

**CHS Global Research** 

May 2022



#### **Forward-Looking Statements**

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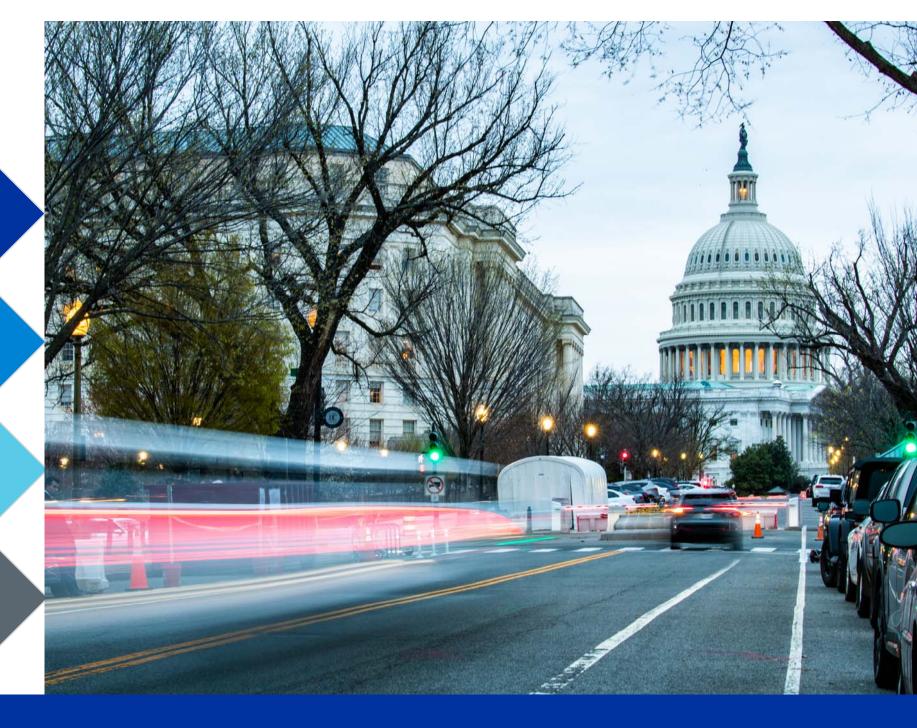
## What You'll Find Inside

**Key Macros:** War Incites Volatility

Global Grain:
Geopolitics & Weather

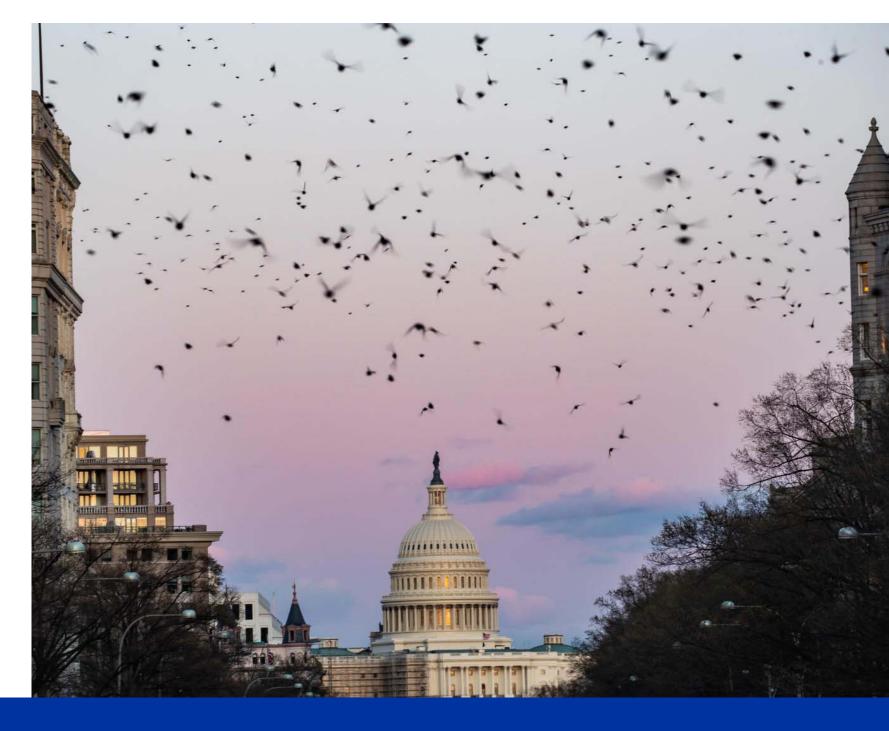
Fertilizer Update: Early Summer Reprieve

Energy View:
More Uncertainty Ahead





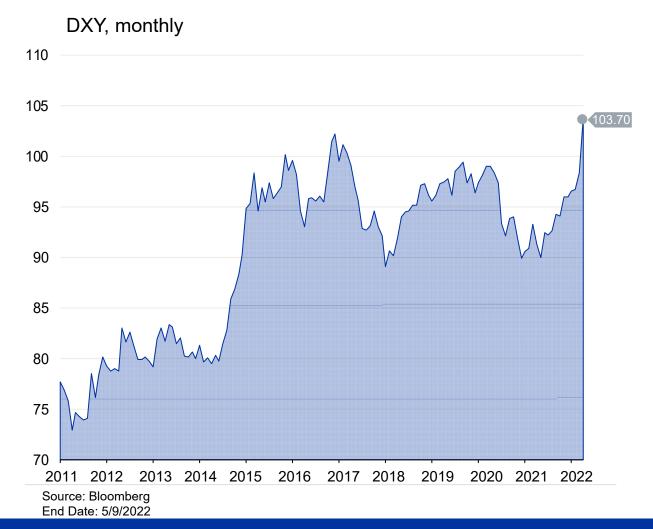
# **Key Macros:**War Incites Volatility



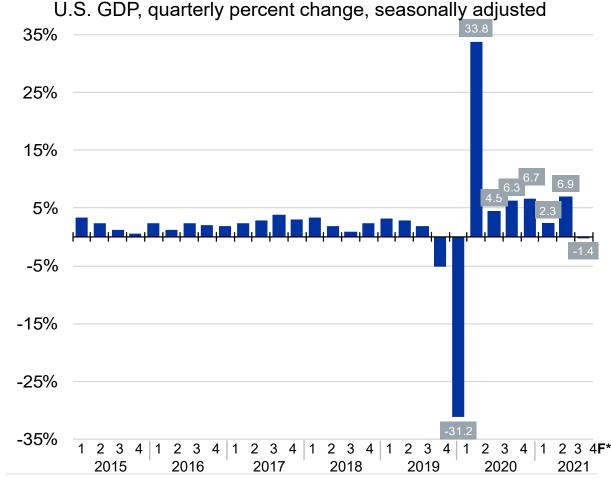


#### U.S. Dollar surges 5%; economy contraction catches many off guard

Russia's invasion of Ukraine and Fed's inflation controls are supportive to the USD, which gained against many currencies



U.S. GDP contracted 1.4% as exports declined due to global supply chain issues while businesses slowed the pace of inventory builds



Source: Bureau of Economic Analysis, BEA Forecast\*

Q1 Release: 4-28-2022

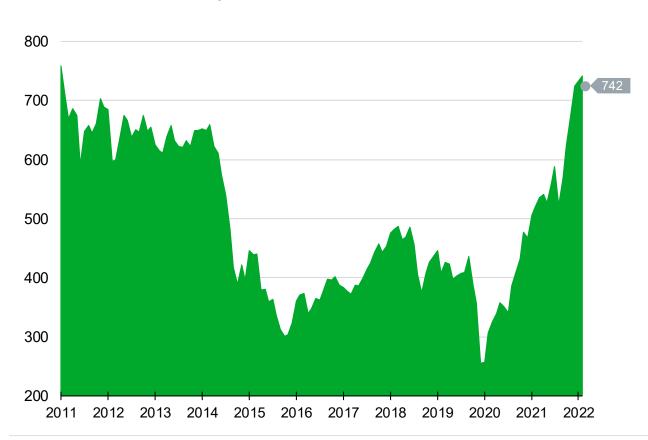


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#### War driving commodities higher; investors looking for an inflation hedge

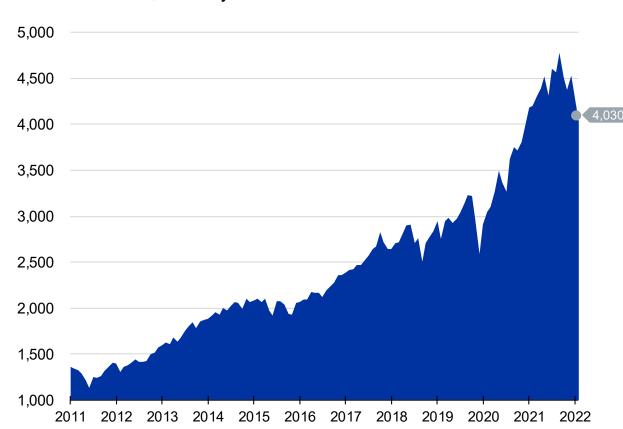
Major components like wheat, oil, natural gas and gasoline are 50-90% higher vs last year

S&P GSCI, monthly



Fresh off record readings, equities feeling the inflation jitters from rising commodity prices

S&P 500, monthly



Source: S&P GSCI, Bloomberg

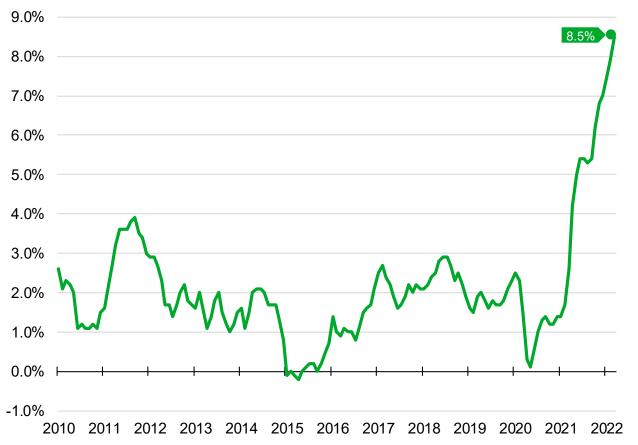
End Date: 5/9/2022



#### Federal Reserve is in the driver's seat with monetary policy

New 40-year inflation records set in December, January, February, and March. It must level off soon, right?

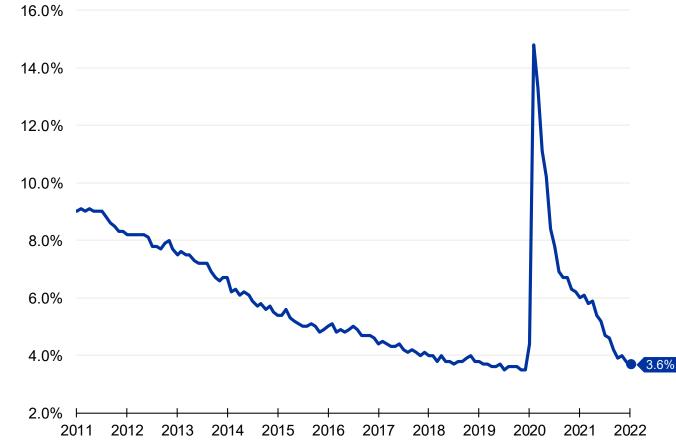
Consumer Price Index, 12-month growth



Source: Bureau of Economic Analysis, Federal Reserve Bank of Cleveland, next release 4/28/2022

We're back? Unemployment rate held steady in April at 3.6% – 5.9M unemployed people is a touch higher than pre-pandemic levels





Source: Bureau of Labor Statistics



#### U.S. rate hike consensus has dollar gaining on other currencies

Strict lockdowns hamper growth prospects, sending the yuan to its lowest level in months

USD vs. CNF, monthly



Real strengthened in 2022 as a result of high commodity prices and monetary policy tightening – though the central bank is expected to take the foot off the gas



Mid-April rate hike from Bank of Canada keeping currency in check; more increases in the pipeline?



Indian rupee at record lows, burdened by high commodity prices and the country's reliance on commodity imports

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021





Source: Bloomberg

## Borrowing activity bumps up as strong farmer finances collide with rising economic uncertainty and higher input costs

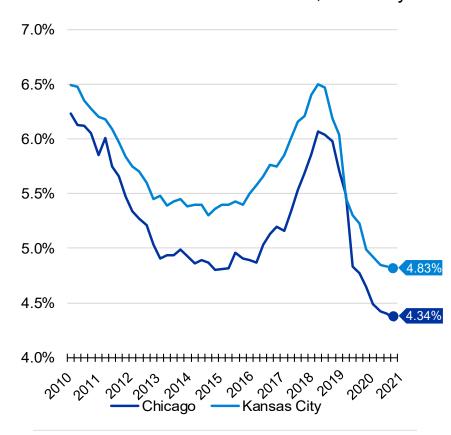
#### Higher input costs driving a year-on-year increase in loan demand

Farm Debt, All Banks, Quarterly



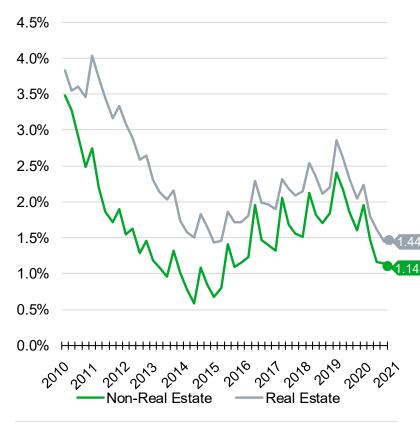
### Ag loan interest rates hit lows in 4Q21 but will reverse course shortly

Interest Rates on Farm Loans, Quarterly



#### Farm loan delinquencies continue the trend toward record lows

Farm Loan Delinquency Rate, Quarterly



**Global Grain:**Geopolitics & Weather

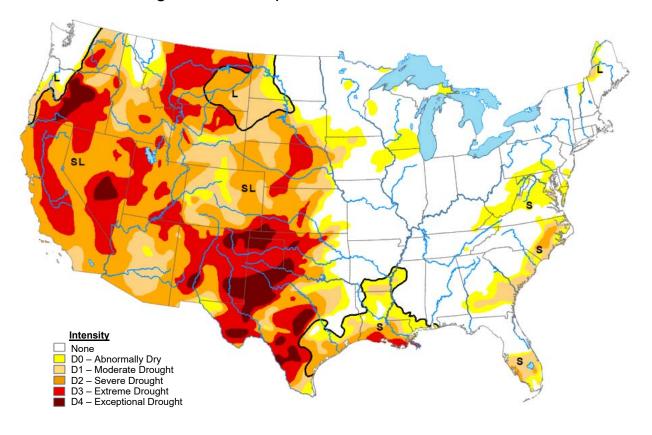




#### Is weather always a wildcard? Spoiler alert – yes

Drought conditions still cover the western US. The worst areas have shifted, but little relief occurred over the winter

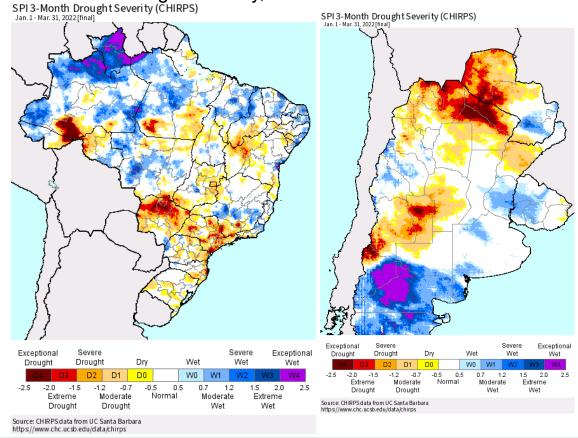
U.S. Drought Monitor, April 2022



Source: National Drought Mitigation Center

Persistent La Niña drought conditions have cut production in South America. Soybean production in Paraguay is down over 60%

South America Drought Severity, Jan - March 2022

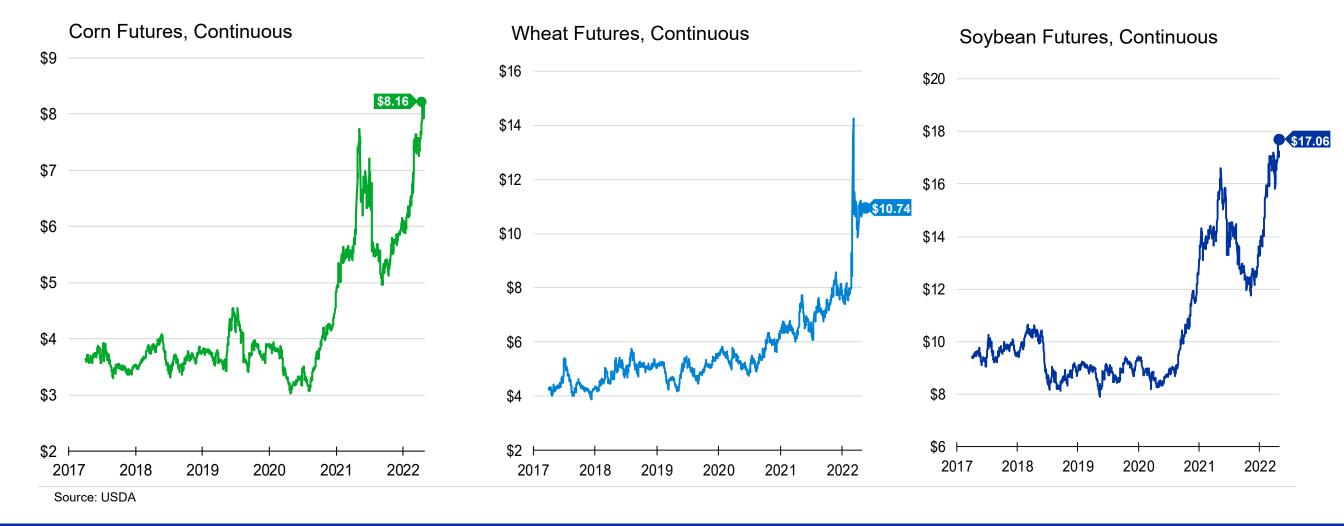


Source: National Oceanic and Atmospheric Administration



#### Futures prices have been on a wild ride

The war in Ukraine has sent commodity prices rocketing higher. Massive risk premiums have been added to account for current heightened global uncertainty



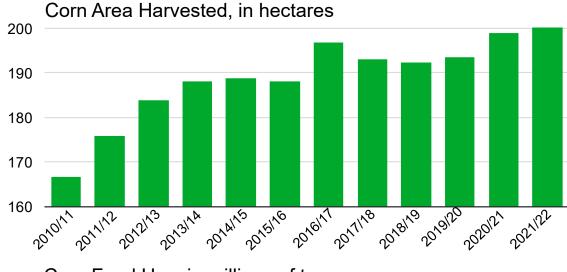


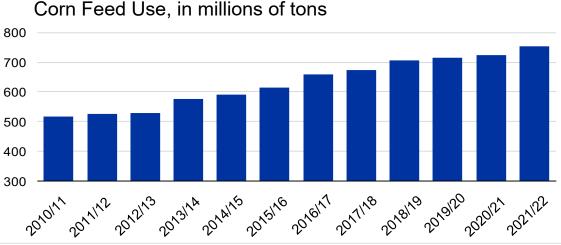


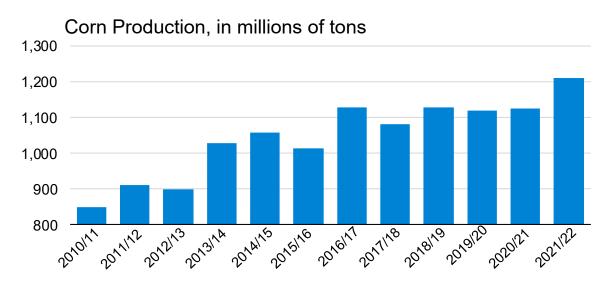


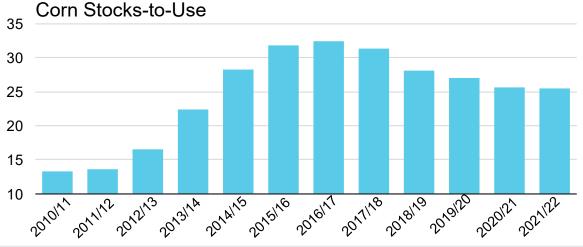
#### World corn acreage and production continues its ascent

Domestic feed usage is at record levels. Corn exports and future production are uncertain with the situation in Ukraine







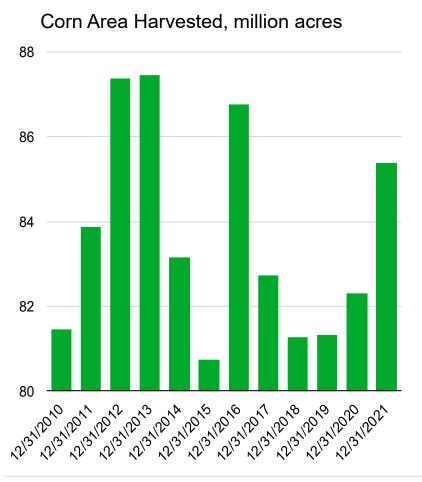


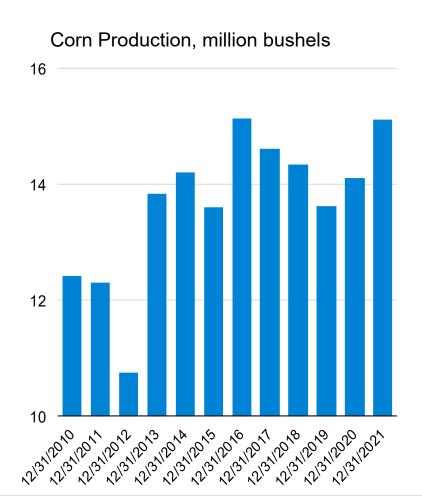


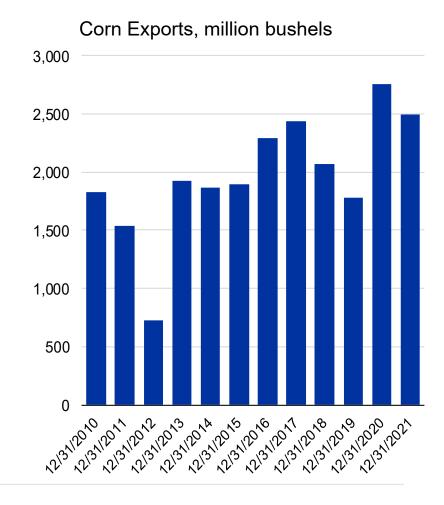


#### U.S. produces second largest corn crop in the last decade

Will the U.S. need to produce more corn if Ukraine is unable to contribute to world demand? Someone has to



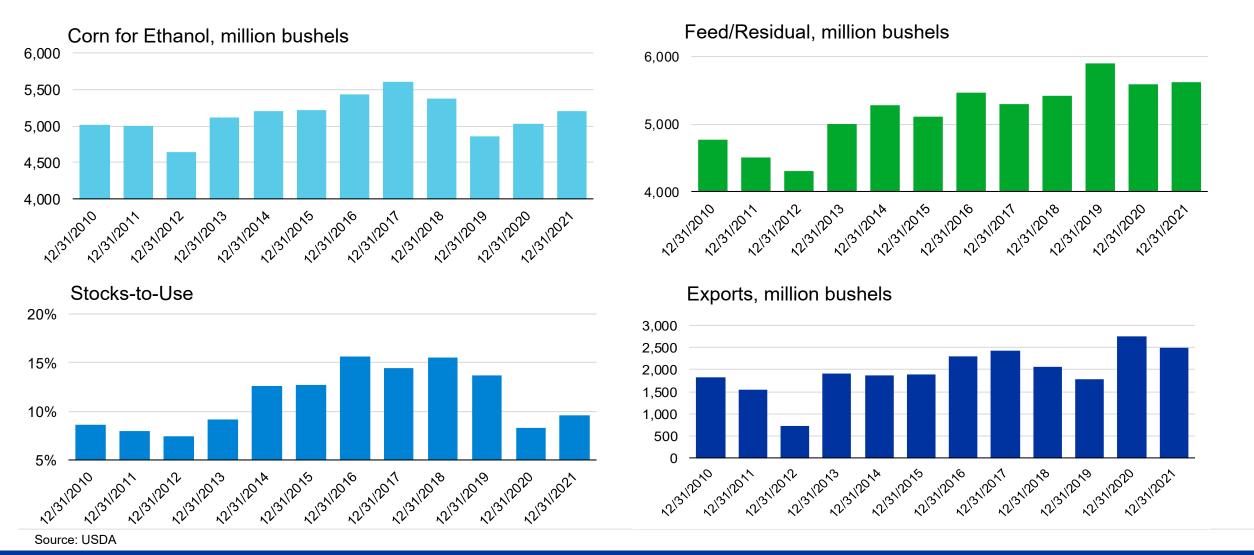






#### Demand for U.S. corn is strong

Triple play: ethanol bounces back, feed stays strong, and exports are looking good

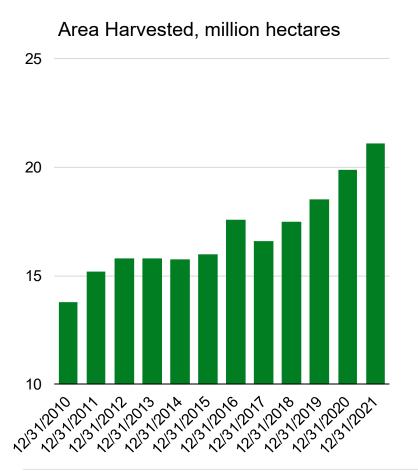


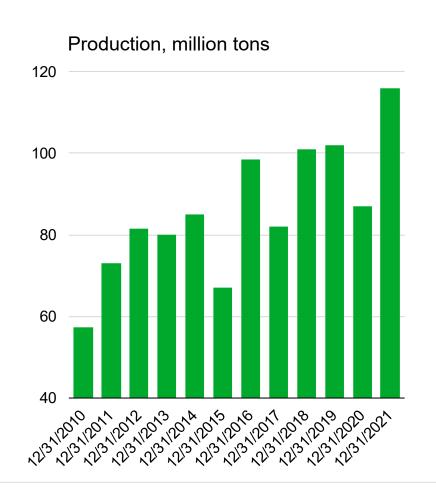


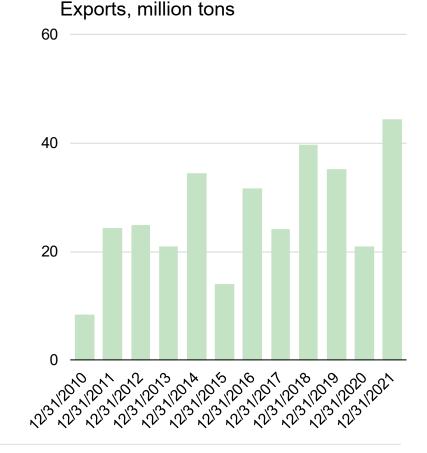
#### Brazilian corn acres have been on a tear



75% of Brazilian corn production is Safrinha (second crop). Planting was early with good weather, however, the rainy season ended in late March





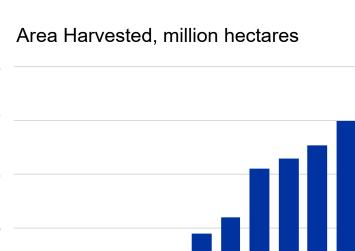




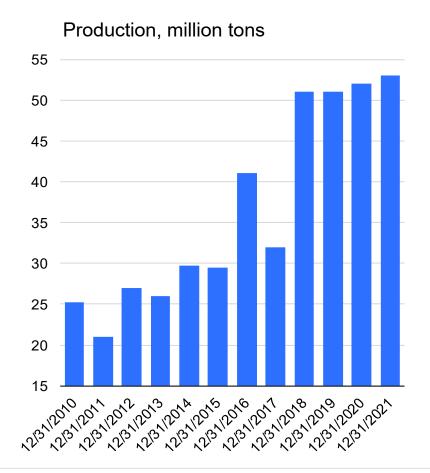
#### Argentina has been busy expanding acres due to global demand

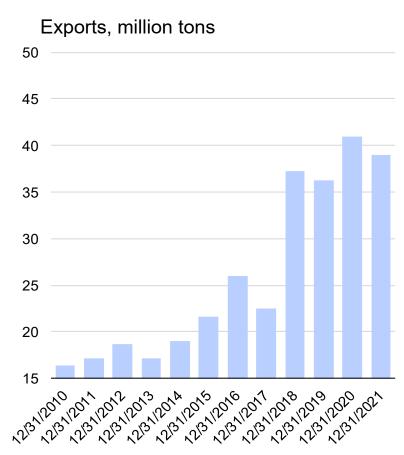
#### However, poor weather has trimmed production possibilities









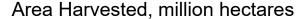


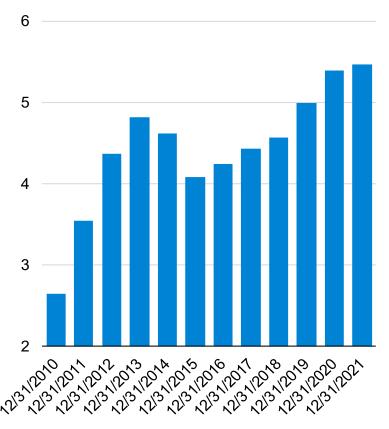


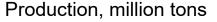
#### Ukraine is the world's 4th largest corn exporter

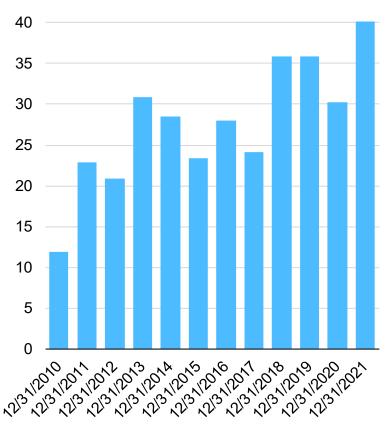


Production for the current marketing year is complete and 75% of exports have left the country – though major uncertainty hangs over the 22/23 crop

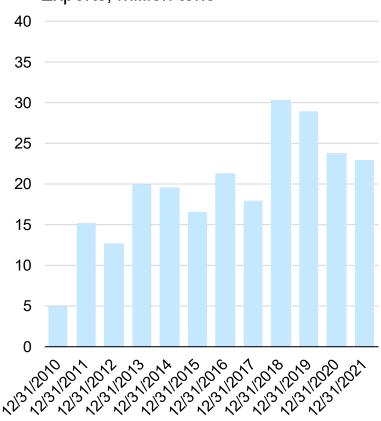










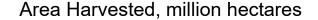




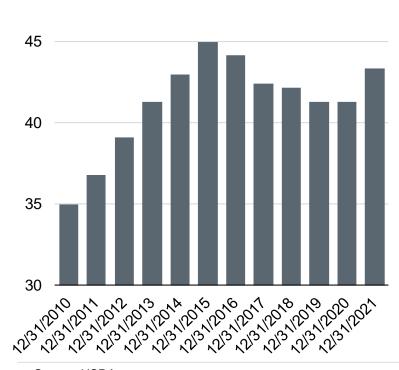
#### Chinese imports will again be a main market mover

China's corn imports are down as they look for alternatives, and cheaper feed options

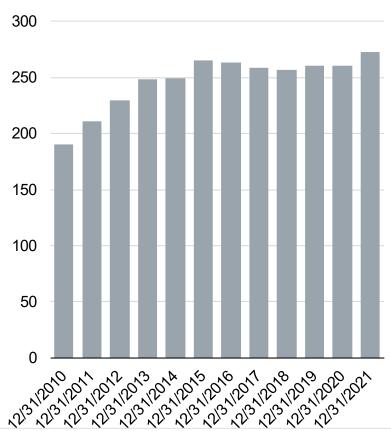




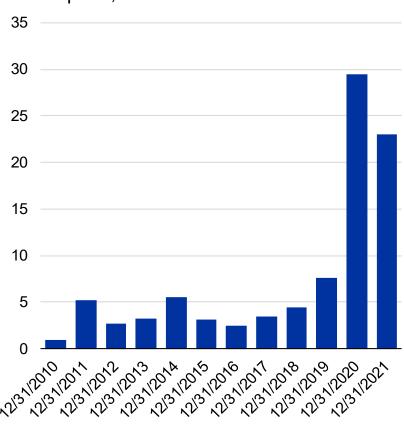
50



Production, million tons



Imports, million tons



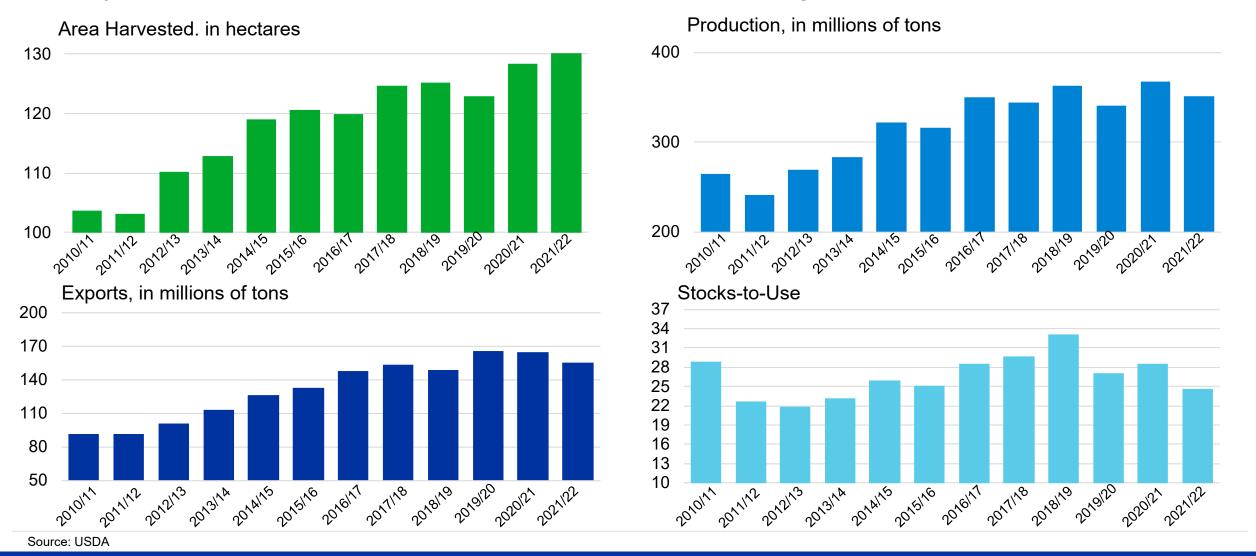






#### Global production takes a big hit as consumption inches higher

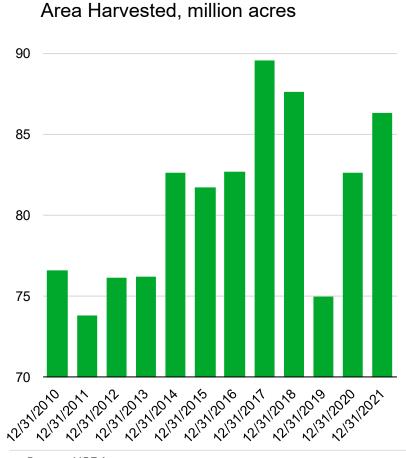
World soybean production dropped from December to April – 25 million tons lost Argentina and Brazil

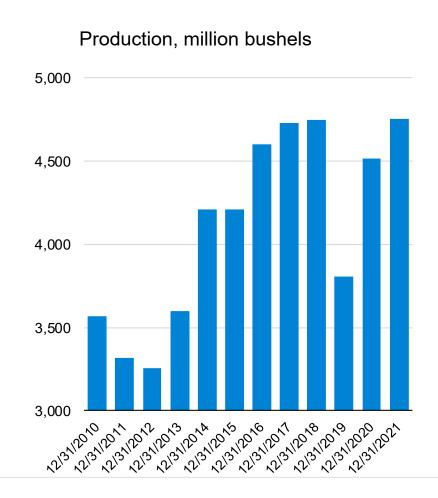


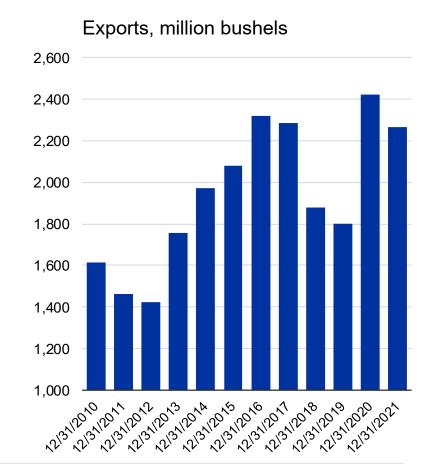


#### U.S. soybean acreage and production have been choppy

The picture doesn't get any clearer, as prospective plantings were a big surprise with soybean acres coming in at 91 million



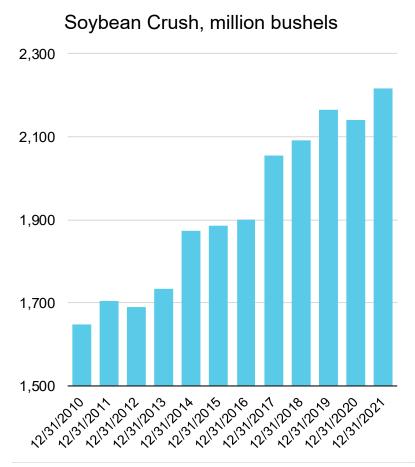


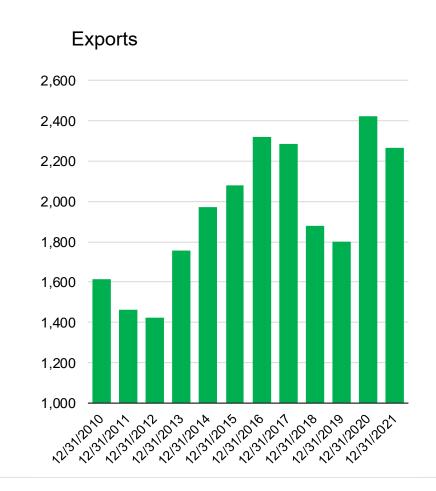


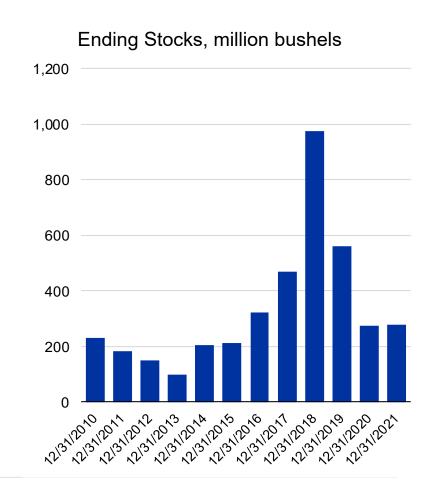


### Strong crush, exports pushed U.S. stocks to pipeline minimums this year

1st quarter demand was good as additional export business came to the U.S. because of the faltering South American crops





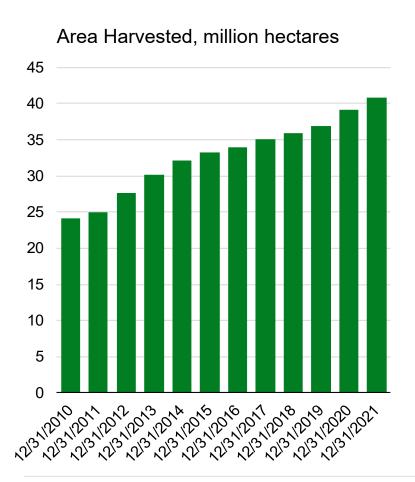


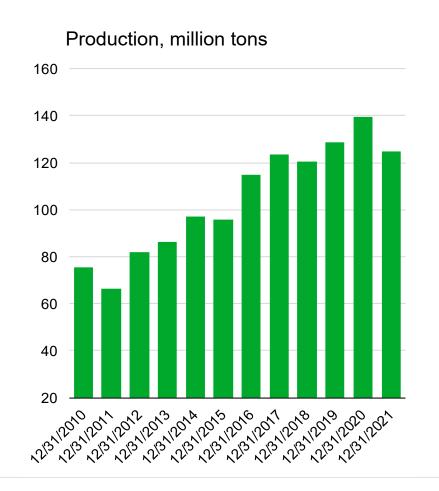


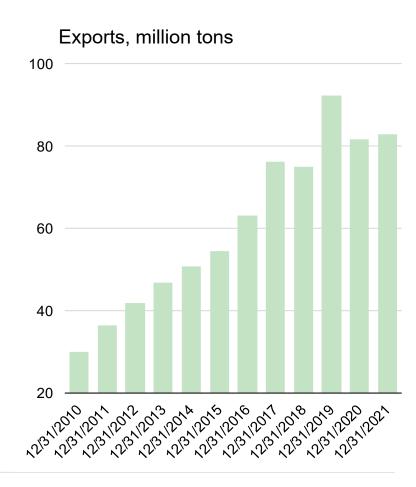
#### Brazil soybean production slashed by La Nina



Production estimates were 144 million tons in December and the current estimate is 125 million tons, a 13% drop





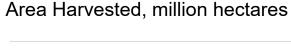


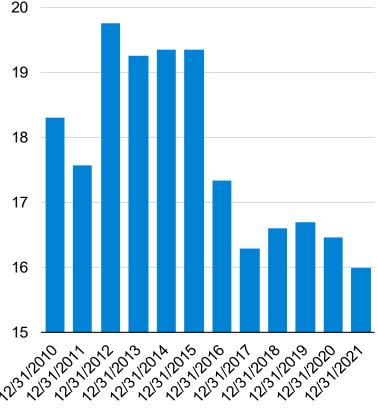


#### Argentina's soy acreage stays within a narrow range

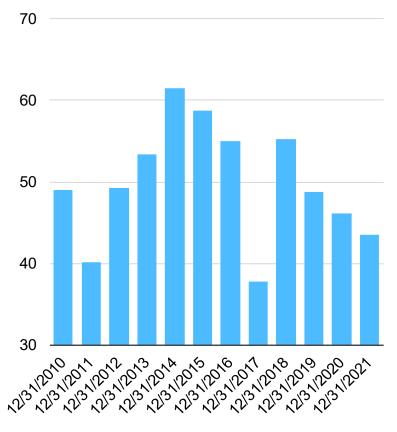
In March, the government increased export taxes on soybeans. This could alter both the production and export outlook



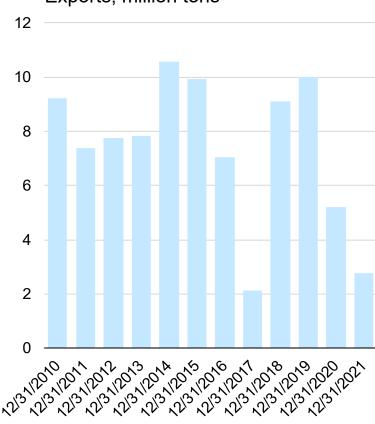




Production, million tons



Exports, million tons

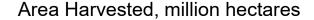


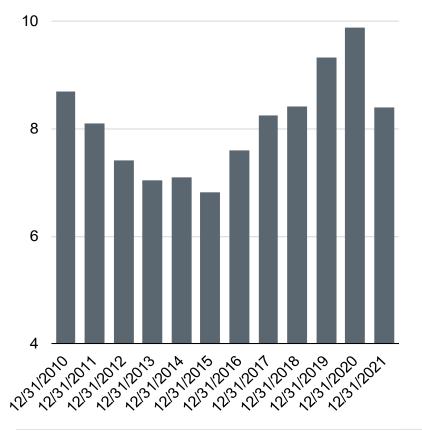


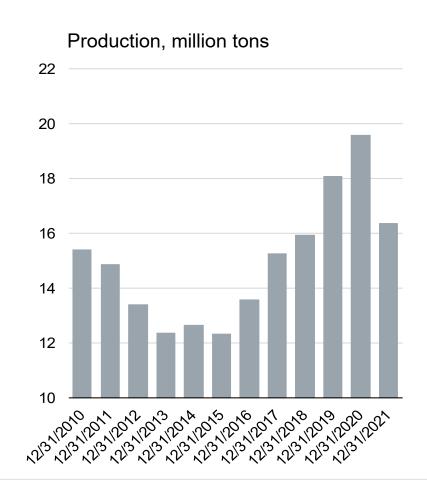
#### China soybean acreage is a drop in the bucket vs. demand

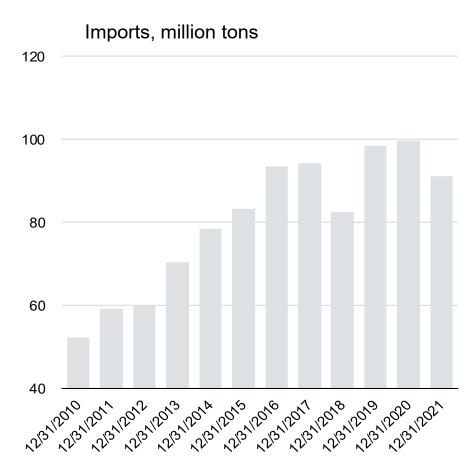












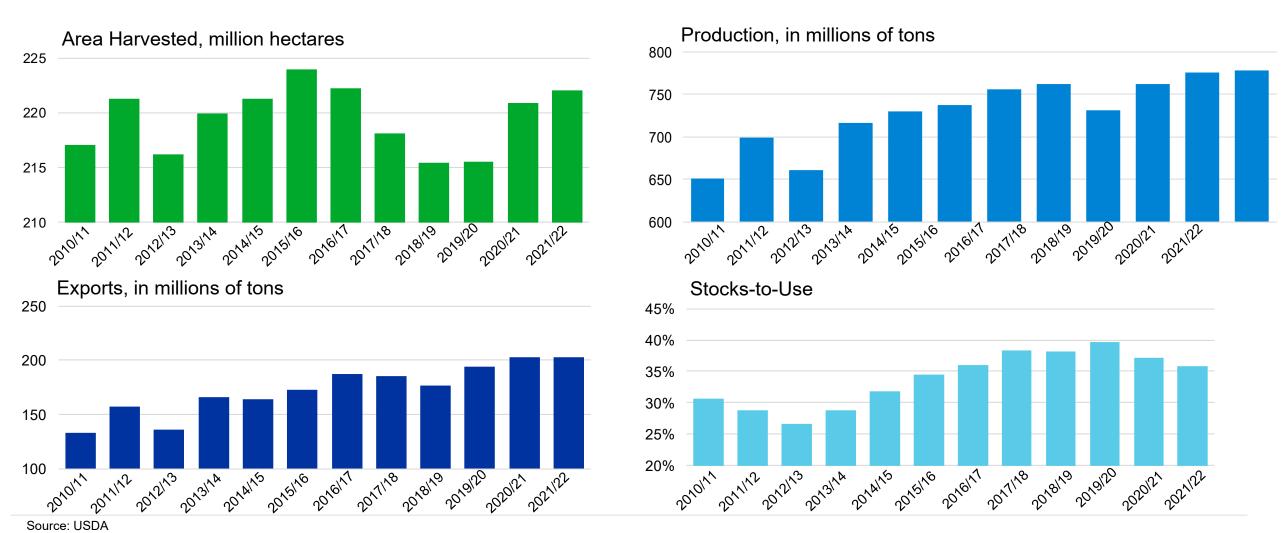






#### Global wheat production continues to climb despite changing acres

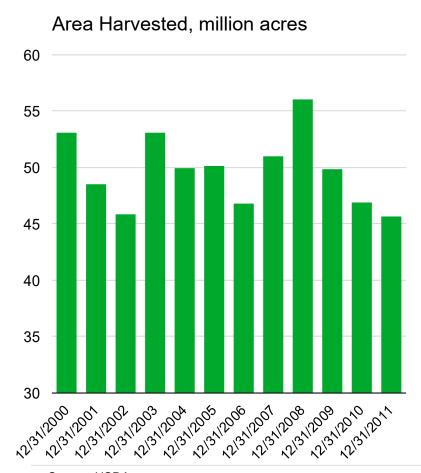
World wheat is finally reversing a burdensome stocks-to-use trend

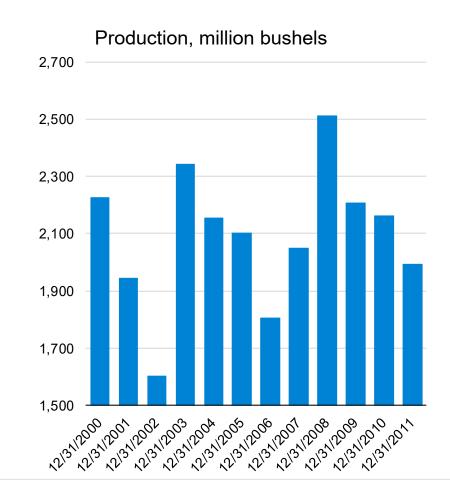


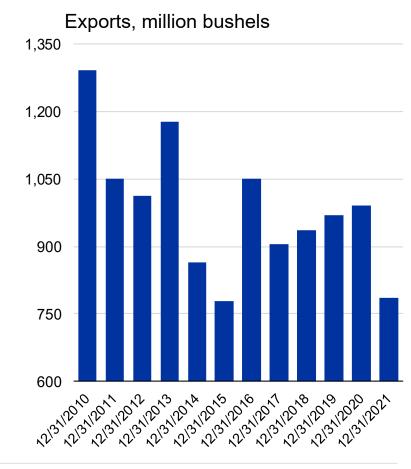


### Will high prices finally reverse the trend of declining acreage?

Drought conditions continue to engulf the majority of wheat acres in the U.S.



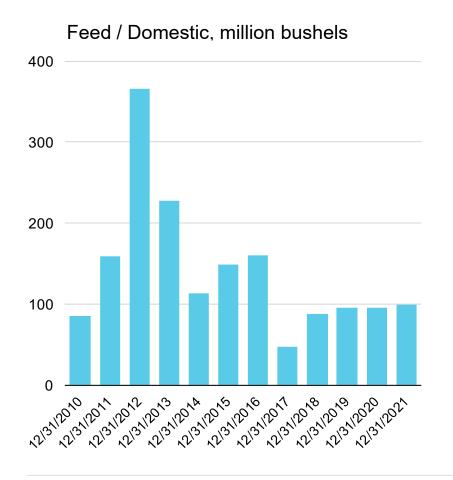


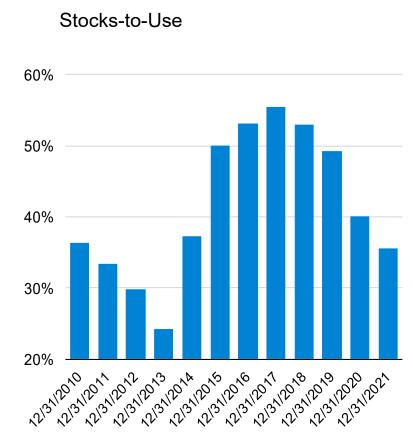


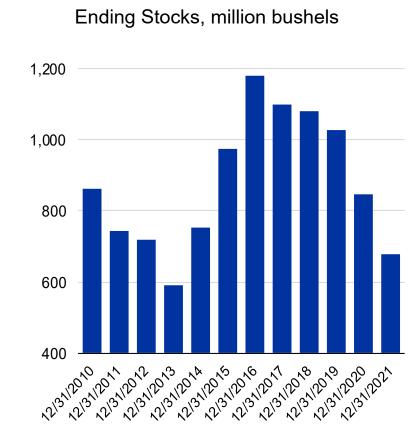


## Low acres, low production, and a relatively stable net use have pushed ending stocks down

U.S. wheat end stocks are at the lowest level since 2007/2008





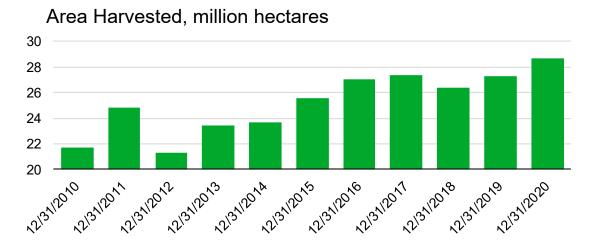




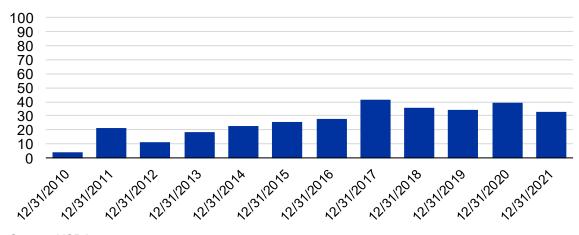
#### Russian wheat crop may surprise to the upside

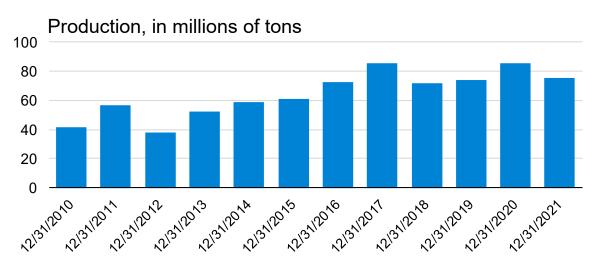


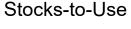
Production is listed at 72.5 MMT by the USDA, but private Russian firms believe the total to be well above 80 MMT. Who will buy Russian exports?

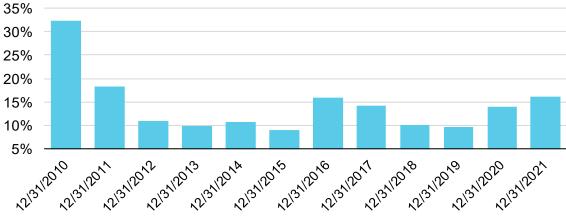












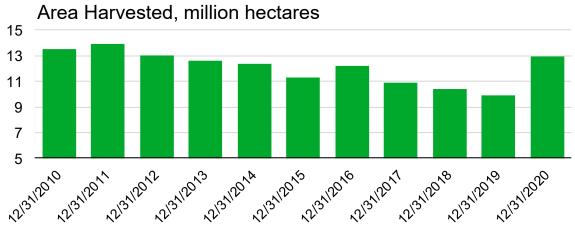


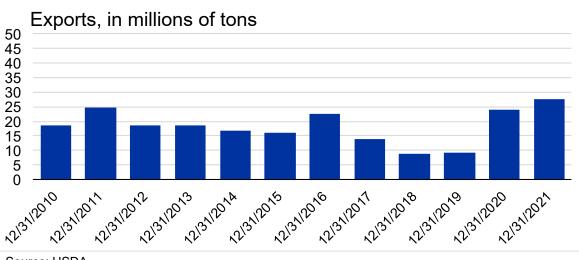


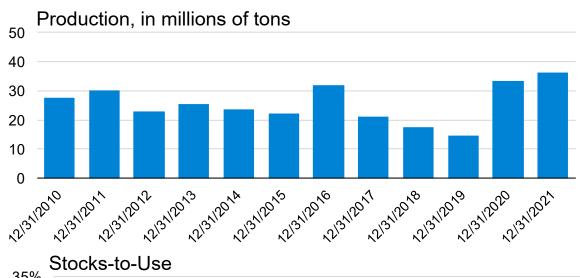
### Australia produced a good crop back-to-back for the first time in a decade

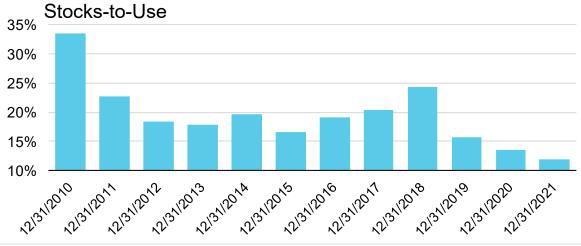


Quality issues still linger from last year's harvest. Will Australia step in to fill world demand?











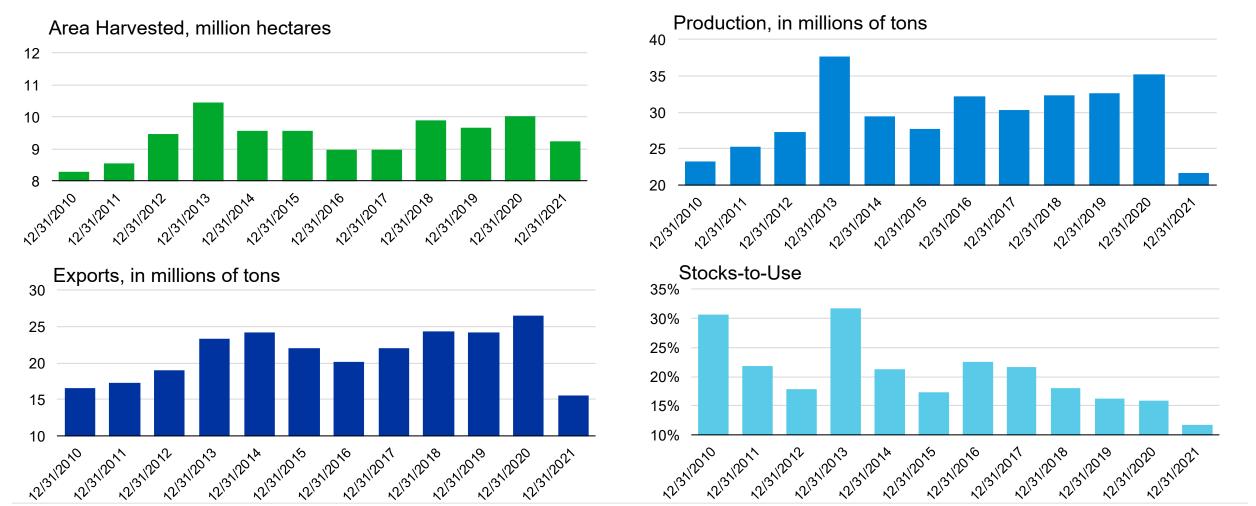


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### Canadian wheat production was decimated by terrible weather all season



#### Production at lowest level since 2007/08

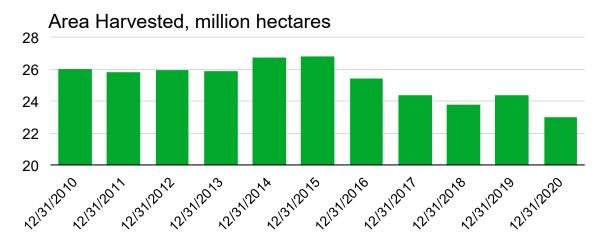


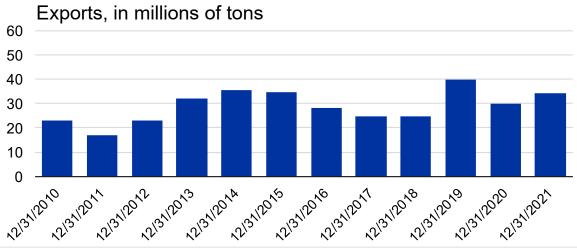


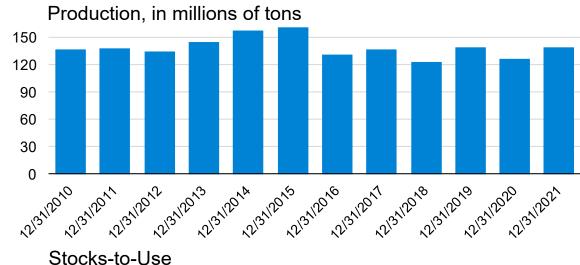
### European Union wheat production is up, though there are quality concerns

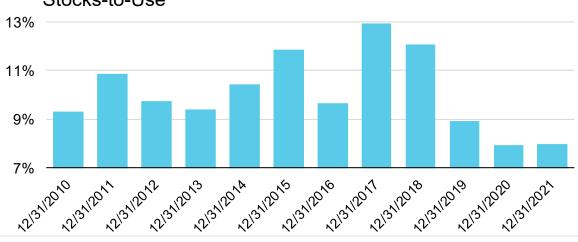


#### EU wheat is at extremely low stocks-to-use ratios











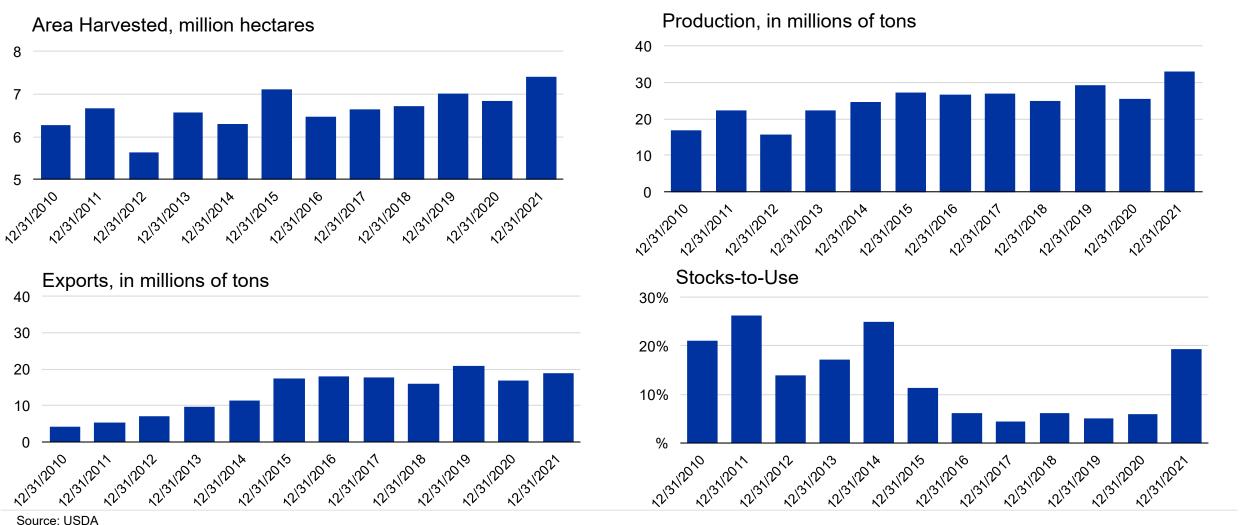


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#### Ukrainian production uncertain due to the Russian invasion



Production is locked in, and exports have mostly been shipped. There will be some wheat left in the country that will get used domestically



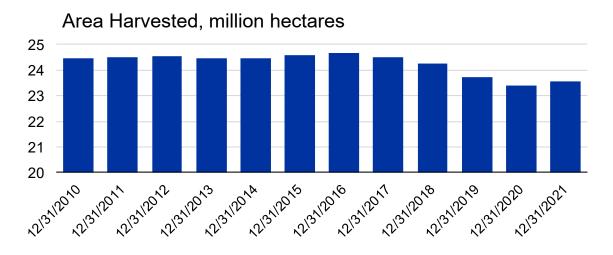


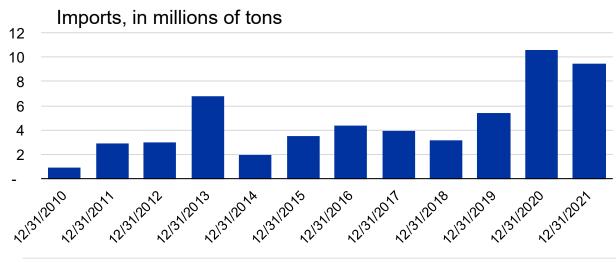
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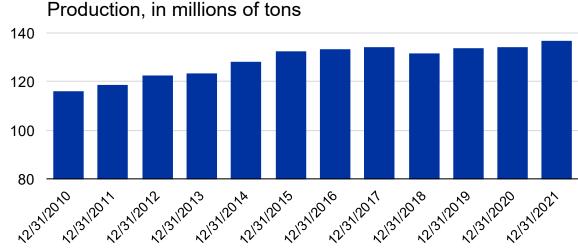
### China is importing additional wheat for feed

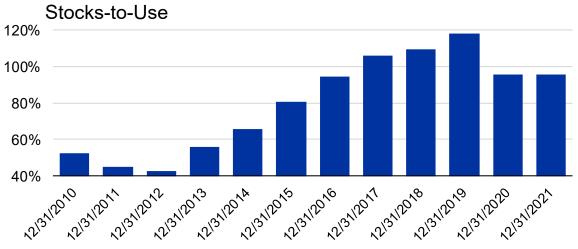


#### Imports and domestic use on the rise









Source: USDA



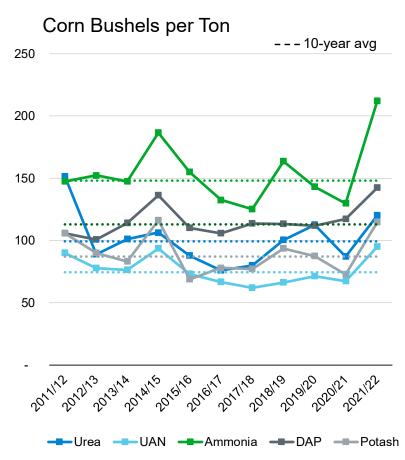
# Fertilizer Update: Early Summer Reprieve



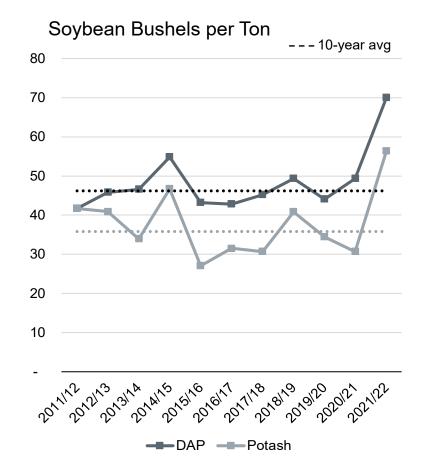


#### U.S. Fertilizer Affordability by Crop Versus Same Time in Prior Years

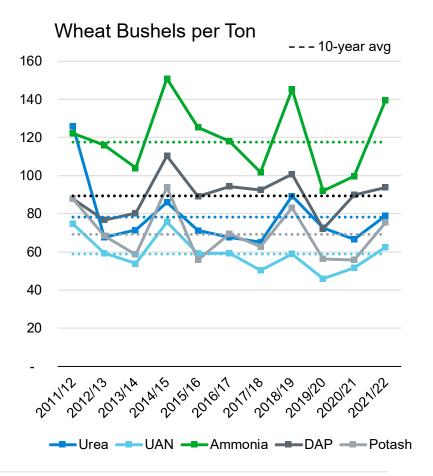
Fertilizer for corn across all products 30% less affordable compared to the 10-year avg



Fertilizer for soy across all products 54% less affordable compared to the 10-year avg



Fertilizer for wheat across all products 8% less affordable compared to the 10-year avg



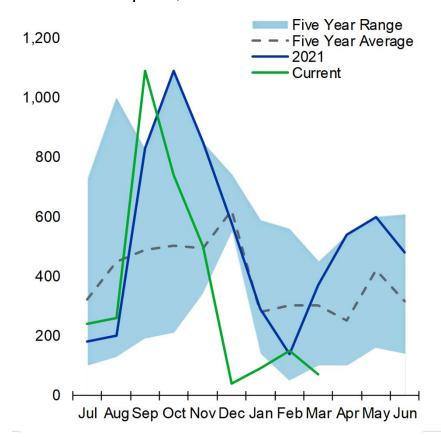
Source: Bloomberg, CHS Global Research



### China Entering Export Season – But Will They?

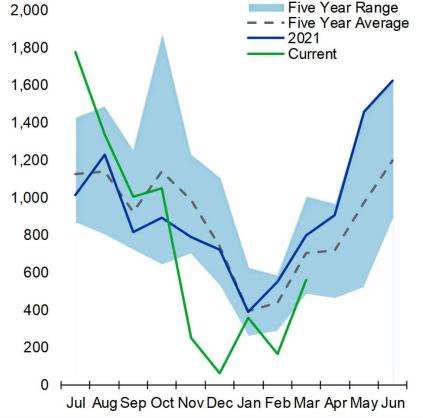
### China constitutes ~10% of global urea trade

Urea Exports, thousand mt



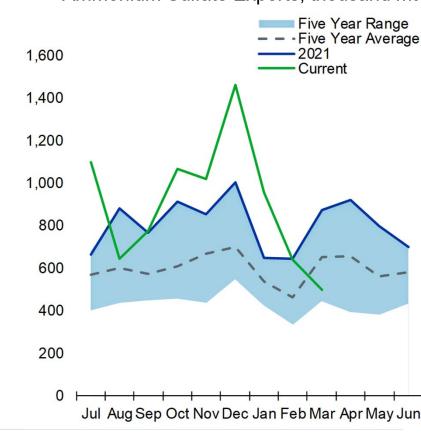
## China constitutes ~30% of global DAP/MAP trade





### China constitutes 60% of global AMS trade

Ammonium Sulfate Exports, thousand mt



Source: Bloomberg, CHS Global Research



2022 est

#### U.S. - North American Production and Exports

2020

2021

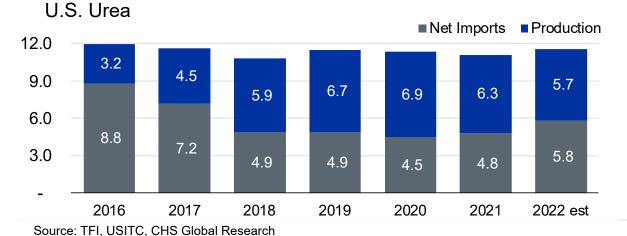
# Increased potash production is expected to be met with increased exports as the world starves for product

2018

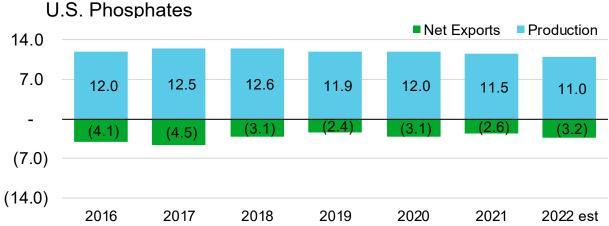


Increased imports meet with falling production to leave U.S. urea supply well balanced for the year

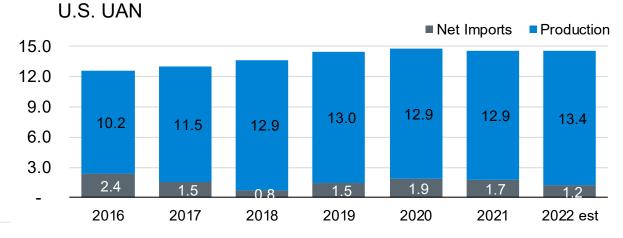
2019



# The 2022 fertilizer year is expected to leave U.S. phosphate supply at low levels last seen in 2015



Falling imports meet with rising production to leave U.S. UAN supply well balanced for the year





2016

2017

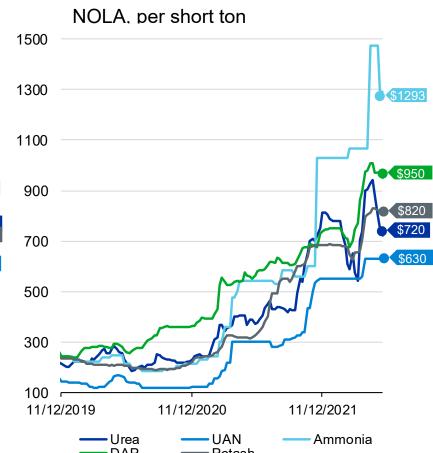
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#### Fertilizer prices have peaked for now – and when demand returns?

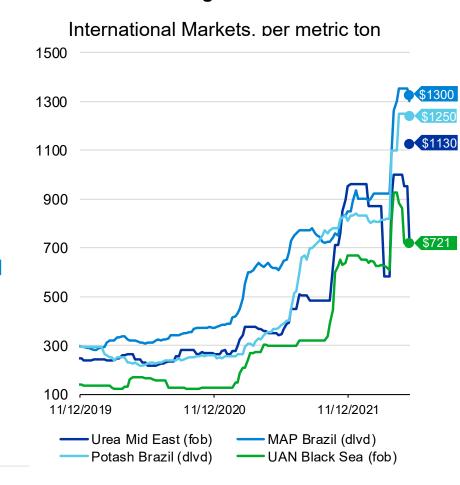
# On a unit of N basis, UAN premium to urea is quite high for this time of year



## Nola values ease on weather driven demand destruction



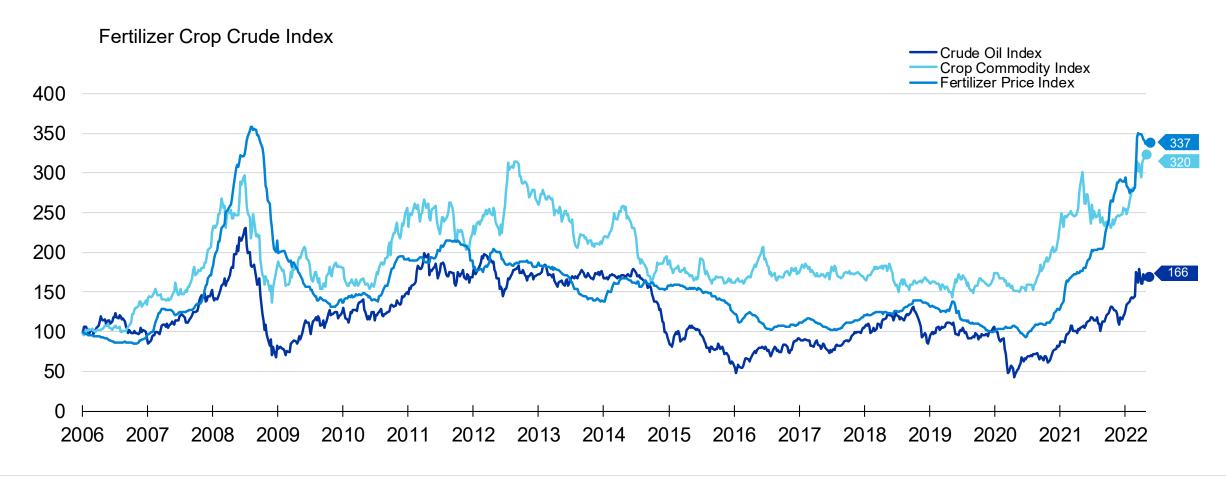
## Global nitrogen prices pull back on weak demand – waiting for offers





#### Crop index remains firms as fertilizer and crude take a breather

Crop index marks fourth straight weekly rise as fertilizer manages through six weeks of declines – with energy looking for a clearer direction







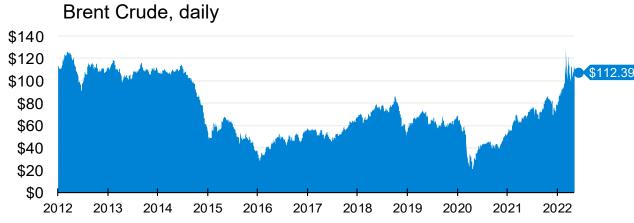
# **Energy View:** More Uncertainty Ahead





## No meaningful price relief valve in sight

# Crude oil prices up sharply 33% YTD and 57% YOY; uncertain supply and conflict in Ukraine



# Supply and demand fundamentals pushing natural gas prices to highest multi-day average in 15 years

Henry Hub, daily



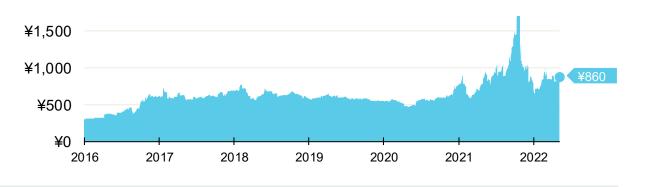
#### Gas to coal, or coal to gas? Both are expensive

European Coal Futures, daily



China has eliminated coal import tariffs for 11 months, beginning May 1, 2022

South China Coal Futures, daily



Source: Bloomberg, Reuters as of 5/9/2022



### Geopolitics, low stocks sending distillate prices through the roof

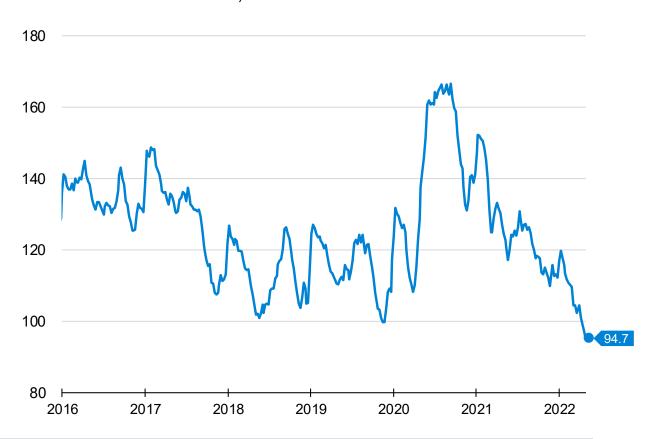
#### Prices touching over \$5 per gallon – a new record

#### Average Diesel Price, daily



#### Distillate fuel stocks are uncomfortably low

Distillate Fuel Stocks, millions of barrels



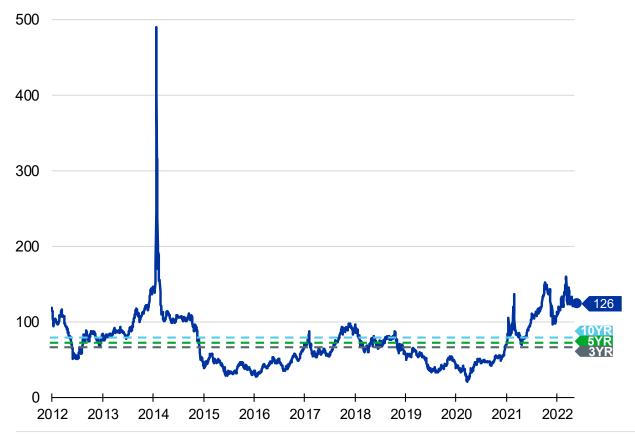
Source: Bloomberg, Department of Energy as of 5/9/2022



#### Propane prices rising amid low stocks, global energy supply concerns

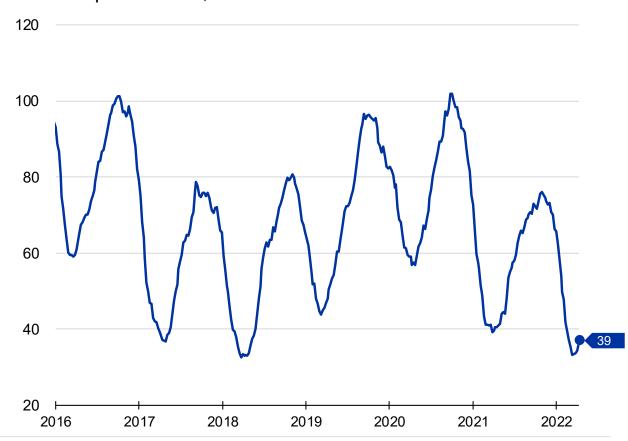
# Propane prices shooting well beyond the 3-, 5-, and 10-year average

Conway Hub Price, daily



# Persistently strong export demand in part keeping pressure on stocks

Propane Stocks, millions of barrels



Source: Bloomberg, Department of Energy as of 5/9/2022



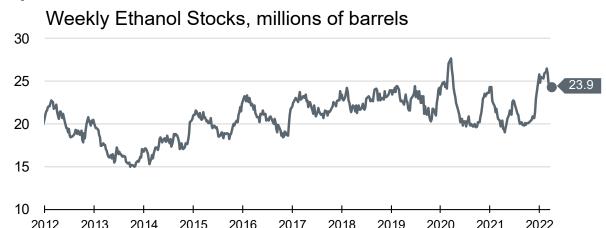
### RINs, renewables prices rise alongside global commodity demand surge

# High demand for feedstocks has pushed renewable fuels prices higher, lifting RINs prices along with it

Weekly D3, D4, D5 and D6 RINs Prices



# Stocks have stabilized following 6 straight weeks of production increases



#### Higher corn prices and driving demand boost ethanol prices

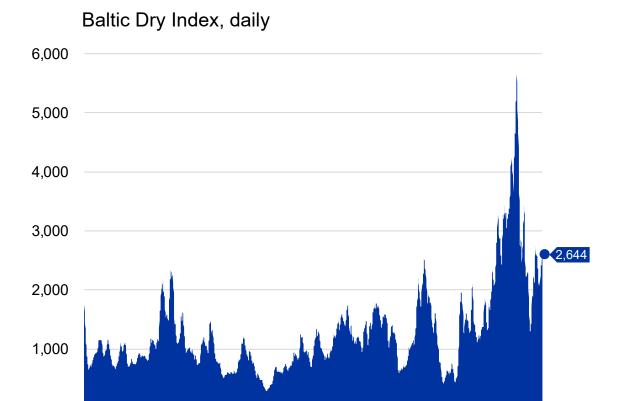


Source: Department of Energy, Environmental Protection Agency as of 5/9/2022



# High commodity prices, increased shipping costs, and massive port congestion causing supply chain issues – and more inflation worries

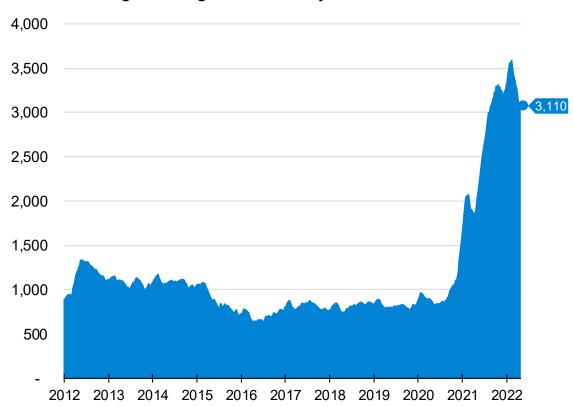
# Traffic congestion, covid regulations, and historically low ship orderbook



2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

# 20% of active container ships are stuck in ports as a result of lockdowns in major Chinese cities





Source: Reuters, CHS Global Grain Marketing as of 5/9/2022





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Nelson Neale is president of CHS
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Research team, helping to drive insights
and market intelligence across the
enterprise and creating thought
leadership in agriculture and agri-energy.



**Joe Lardy** *Research analyst, ag markets* 

Joe Lardy provides market intelligence and insights to help farmers and commercial businesses achieve their financial goals. He analyzes data that affects commodity markets; provides forecasts and commentary based on government-issued reports; and provides insights for making hedging decisions.



Jason DeVinny Research analyst, macroeconomics

Jason Devinny develops macroeconomic insights on external influences that impact CHS businesses, providing thought leadership and reports on factors ranging from global currency and farm credit, to domestic policy.



**Matt Welp** Research analyst, agronomy

Matt Welp handles technical chart analysis, conducts weather analysis, and provides outlooks and insights for agronomy, grain, processing and energy markets. He provides comprehensive views of current and future economic landscapes, as well as highlighting technical trading opportunities.

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