October 12, 2022 **#2019**

LOOKING FORWARD WITH A BACKWARD GLANCE

Grain Sales Recommendations: No Sales. Next MNU by Oct 23rd.

See 247Ag on Twitter: Not only will you find many weather maps tracking our on-going Trifecta, but you will also find other market trends, world data, great comments, along with ***corn and soybean yield results from area producers,*** all found at: https://twitter.com/247dotAg

Current Sales:	**2022** sales:	**corn**	10%	**soybeans**	50% - 100%	**wheat**	75%
	2023 sales:	**corn**	0%	**soybeans**	0%	**wheat**	40%

Technicals Plus: For the week, **Dec22 Corn** continues to trade sideways, holding from $6.60 to $6.70 and resistance from $6.95 to $7.00 this week. Harvest pressure keeps this market from rising, as well as very poor demand from very weak export sales and loadings. ***(Exasperated by low water shipping issues.)*** Still looking for corn to reach $7.25 on the board, with basis levels pushing the cash price much higher. **Nov22 Soybeans** are getting hit with the same weak demand issues as corn, as well as the low water and river issues. Macro issues will not go away anytime soon, which weighs on all grains. When seasonals run their course, traders will change their selling rally habits. From last week, gap support sits from $13.492 to $13.582. We would love to see that hold. Otherwise, MAJOR support remains at $13.00. Today's low tick was $13.50. Gap remains open. That could easily be filled tomorrow/Friday, as the last day of the week normally sees the greatest harvest pressure. Dec22 meal is adding pressure, as it closed below its support level today which is $395.50, with price closing at $393.40 today. **Dec22 K.C. Wheat**, after failing to get through resistance at $10.00 having beaten on it for 4-consecutive days, broke lower, falling $0.35 today, closing at $9.65. We would like to see today's low of $9.596 hold, as this fits its chart structure perfectly. Next technical objectives would be to clear $10.00, before price can challenge its next objective of $11.00. We may look at making an additional sale recommendation at that level, $11.00, with July23 K.C. wheat finding resistance at $9.75 this week.

October 12th, 2022 USDA Grain Stocks Report:

U.S. Production 2022/2023		**Average Guesses**	**Sept**	**2021/2022**
Corn –	13.895 bb	13.891 bb	13.944 bb	15.115 bb
Soybeans –	4.313 bb	4.379 bb	4.378 bb	4.435 bb

U.S. Avg Yield (bpa) 2022/2023	**Average Guesses**	**Sept**	**2021-2022**

	October			
Corn –	171.9	171.9	172.5	177.0
Soybeans –	49.8	50.5	50.5	51.4

U.S. Harvest Acres 2022/2023		**Average Guesses**	**Sept**	**2021/2022**
(Million Acres)	October			
Corn –	80.8	80.8	80.8	85.4
Soybeans –	86.6	86.6	86.6	86.3

U.S. Ending Stocks 2022/2023		**Average Guesses**	**Sept**
Corn –	1.172 bb	1.127 bb	1.219 bb
Soybeans –	0.200 bb	0.240 bb	0.200 bb
Wheat –	0.576 bb	0.563 bb	0.610 bb

World Ending Stocks 2021/2022		**Average Guess**	**Sept**
Corn –	307.0 mmt	307.4 mmt	312.1 mmt
Beans –	92.4 mmt	90.0 mmt	89.7 mmt
Wheat –	278.4 mmt	275.7 mmt	275.7 mmt

World Ending Stocks 2022/2023		**Average Guess**	**Sept**
Corn –	301.2 mmt	301.2 mmt	304.5 mmt
Beans –	100.5 mmt	99.6 mmt	98.9 mmt
Wheat –	267.5 mmt	267.1 mmt	268.6 mmt

USDA's Numbers: **Soybeans** were the price leader in this report, rising $0.33 in the 1st minute of trade after the numbers were released. The USDA planned it perfect, making one wonder if they knew last month, they would need to be cutting yield in October, so 2021 soybean production strategically raised by about the same amount beforehand. 2022 soy production was cut by 0.7 bpa, dropping it to 49.8 bpa, which was 65 mb. That cut alone would have taken 2022/2023 soybean carryover stocks down to 175 mb. To get carryover back to 200 mb, the USDA cut export demand by 40 mb and increased U.S. crush by 10 mb. Residual use was also reduced. For 2022/2023, the USDA ***lowered*** the average farmgate price to $14.00.

The USDA estimated Brazil's 2022/2023 soybean crop at 152 mmt and Argentina's at 51 mmt. USDA also raised China's 2022/2023 total soybean demand to 98 mmt, increasing it by 1 mmt.

For **Corn**, total production was cut by 49 mb by taking yield down to 171.9 bpa. Corn exports were lowered by 125 mb to 2.15 bb, feed and residual use increased by 50 mb, domestic use lowered by 50 mb, with total use at 14.15 bb, down 125 mb from September. Ethanol demand was cut by 50 mb, netting total domestic use at 12 bb. Ending stocks for 2022/2023 at 1.172 bb, which is a 10-year low. The USDA raised the expected farmgate price $0.05 to $6.80.

On the world scene, the USDA set Brazil's corn production at 126 mmt and Argentina's at 55 mmt. They see Ukraine's corn exports at 15.5 mmt, up 2.5 mmt from their last guess.

USDA placed U.S. **Wheat** use to 1.86 bb, down from their September estimate of 1.94 bb. Production was cut to 1.65 bb from 1.78 bb in September. In a bit of a surprise, harvested acres were reduced again, this time to 35.5 m, down from 37.5 m last month. Wheat exports for 2022/2023 were lowered to 775 mb. Combined, these numbers had the USDA raising the average farmgate price for wheat from $9.00 to $9.20/bu. One well-known Ag Commodity Firm sees wheat feeding up to 100 mb higher than what the USDA reports. No corn available for Southern cattle feeders so there was no option. This would be a big mover to price if they are correct. But it will not matter to **corn or wheat** prices if it never shows up in the official numbers, though it would show up in basis levels! ***(The USDA appears to be "managing" wheat numbers in this report, getting stocks higher by cutting exports. We know the game and its being played. Watch how numbers change in future reports.)***

Corn: Today's U.S. 2022/2023 corn stocks at 1.172 bb are the lowest stocks number in 10-years. This number will continue to support prices in the future. Corn production issues in Ukraine will persist, as will Trifecta induced production worries in South America in the 1st quarter of 2023 and perhaps beyond.

Last August, 247Ag estimated the U.S. corn crop at **172 bpa**, on the same day the USDA came out with their estimate of 175.4 bpa. The importance of having final production is critical to price discovery and our projection as to where prices will be headed. If we saw yields trending higher, we would have recommended sales in August. Knowing a yield of 172 bpa in August, continued to give us confidence in our continued "no sales" recommendations.

The Big Feed Deficit in major feedlot states will continue to support higher basis levels in all states south of North Dakota and all areas south of Minnesota and west of I-35. Trucks are lined up at southern Nebraska elevators, up to 20-deep, loading corn for destinations south. These lines will be working their way further north and east, as demand eats through available supplies, pushing basis levels even higher throughout the year.

USDA reported corn ground for ethanol had a processing value of $9.41 in Iowa. It is interesting they would cut demand with such strong numbers. The negative is the possible rail strike in November and the lack of transportation down the Mississippi. These two reduce basis levels, which come right out of the producer's pockets. This is one of the few times the drought ridden western states will not feel this loss as much as will the eastern states. Our demand is coming from local buyers, and we do not need any corn in our general area to move east. It is all going west.

Soybeans: China's soybean prices keep yelling "Feed Me", as they put in new contract highs every day this week, hitting $21.58/bu today. Then this morning, flash sales reported 527,000 mts sold to China. This flash sale proves China's need for soybeans and will support last week's low trade as this fall's harvest lows.

Soybean harvest was said to be 44% complete as of last Sunday. The 5-year average is 38%. By this Sunday, it will have reached well over 60% complete. Generally, when this level is reached in a normal year, end-users would start chasing remaining bushels, pushing the board price $0.50 to $1.00 higher. Today's USDA report should add fuel to this seasonality. An offsetting negative would be slow movement of grain down the Mississippi.

We estimated soybean yield at 50.0 bpa in June this year. Today's yield forecast finally fell below 50.0 bpa to 49.8 bpa.

For the record, on July 12th we wrote this, ***"Then what about yield? <u>We are on record of yield coming in at 50.0 bpa</u>. The USDA remained at 51.5 bpa. StoneX is at <u>52.6 bpa</u>. Why are we off so much? Are they just going by state-by-state G/E ratings versus historic comparisons of those ratings?***

Our argument is that over 90% of all those we have spoken to from Iowa and Nebraska north, tell us their soybeans look like crap. Small. Not growing. Not going to fill the rows. Add that to very late plantings and yield potential has been reduced accordingly. Significant yield gains have been achieved over the last few years from very early plantings. The yield potential from early plantings has been lost this year. Add early soybeans that were frozen and needed to be replanted, soybeans planted in very poor soil conditions, really cool/cold weather in April, May, and into June, and it adds up.

Soybeans are notorious for overcoming many different stresses. One thing they cannot overcome are the blooms they can put on before Summer Solstice due to late planting. It will be interesting to see who was right at forecasting yield. Their yield numbers change every week, based on weather influences and crop ratings. Ours is longer-term modeling off major yield influences."

<u>Wheat</u>: Enjoy the volatility in wheat if you are a trader. Price is doing a great job of holding its accelerating trendline higher, after forming a near perfect, saucer bottom. Higher lows and higher highs continue to be printed. This week, all 3-wheats closed at 3-months highs.

The HRWW crop in the U.S. could not have much worse conditions as it does this fall. Soil moisture conditions show short to very short in SD at 81%, KS at 92%, and OK at 95%. Producers will not get seed to germinate in soils this dry. With U.S. ending wheat stocks at their lowest level in 15-years, such a tight scenario does not need much demand for prices to remain elevated. Plus, the technical trend is building on a very bullish, rounding bottom, with continued higher highs and higher lows being printed weekly.

The wheat complex is reacting more to the Ukraine situation than corn. It has the right, too. It is the 1st crop for 2023 production. It has production issues in the U.S., Ukraine, and Argentina. It will be the 1st to need nitrogen, herbicide, and insecticide.

<u>Yet, the bigger story is likely in corn</u>. Why? Wheat is grown in nearly every country. If several exporting nations are short wheat, buyers can go elsewhere to find what they need, though the price will likely be higher. Not the case with corn.

The Top 5 Corn Exporting Nations are the U.S., Brazil, Argentina, Ukraine, and Russia. As of January 1, 2023, Russia's ability to export grain will be extremely limited with all the sanctions going on. Ukraine will have similar issues with exporting, but also with production. Argentina is having what some claim is their worst drought on record, back to 1933. They are struggling to get their 1st corn acres in due to limited moisture. We posted on Twitter that our Trifecta, as we project it trending, will cut 1 bb off South America's crops. That would be corn and soybeans. Then the U.S. weather is setting up like 2022 is 2011, which could make 2023 like 2012. There is so much risk to production in the Top 5 Corn Exporting Nations that those who do not get their 2023 needs secured ASAP could be SOL early in 2023. Food for thought? And if you do not read the wheat section, you will not see these important facts!

Remain Fearful: Two years ago, we shared that geneticists believed they would be increasing U.S. corn yields by 10 bpa each year for the next 3-years. 2022 is Year #2. Consider the U.S. Midwest is suffering from drought not seen since 2012. The 2012 drought began in July of 2011. This year's drought for many in the U.S., began much earlier in 2022 than it did in 2011. Yet, we do not see yields falling much, comparatively speaking. Falling 8 bpa is not much, again considering? Many know farms are 10-miles away that received 2 to 4 more inches of rain and those farms are making record yields. Yet, theirs are 50 to 70 bpa less, and in some cases, much more. What if the Midwest ever has a good year? It is going to happen. When it does, many producers will be financially crushed, as that year will likely come when input costs are extremely overpriced compared to what grain prices will become harvest. Food for thought as we progress through the 1st half of this decade, where weather extremes continue to increase.

Black Swan #1: China and Taiwan do not appear to be a Black Swan event currently. China has more concerns than Taiwan at this moment. Their handling of the virus continues to see them shutting down cities, hindering demand. What is like a Black Swan to demand, could come back as an insatiable beast when/if they stop these lockdowns. U.S. demand exploded when our government took its heel off our necks, right when the supply chain was falling apart. The same could also be repeated in China, sharply increasing their import needs right when grain supplies are falling. Demand for grains in China can be extrapolated from their internal prices. Their corn price has risen this week to $9.88/bu, with their soybean price at a new contract high for China at $21.21/bu. And that price is after China purchased nearly 20 cargoes of soybeans from Argentina after Argentina offered their farmers a Big Bonus, good until the end of September, if they sold their soybeans instead of holding them off the market as a hedge against their 60% inflation. China's pork prices jumped by a record margin of 6% on Monday, due to tight supplies. China showed up in loadings this month, taking a pile of beef.

Black Swan #2: We are getting piled on this fall with negative events. And if you think about it, grains are holding up reasonably well, at unusually high levels. In fact, corn basis levels remain over the board prices in all states except ND, MI, and OH. All the rest of the corn states have a bid somewhere over the board price.

Negative to these prices is the low water level on the Mississippi River, due to the historically dry year we are having in the Midwest. For this year, parts of SD, NE, IA, MI, KS, MO, OK, TX, LA, GA, and NC are seeing their driest year in over 100-days. The NE corner of Nebraska is seeing the 127th driest year to date, the NW corn over Iowa their driest year on record, the NW corner of Missouri its 100th, the Western and Southern Tiers of Kansas from 105th to 121st, Oklahoma's north, west, and southern parts 98th to 117th, and all of Texas except the very southern tip, 105th to 125th driest. You can see the map posted on Twitter. California, where nearly 50% of our fresh vegetables come from, has about 40% of the state in the worst drought ever, with the balance of the state coming in from the 126th to 129th driest.

Why is the drought a Black Swan event? The Mississippi River and our river systems are the arteries of our transportation from an agricultural standpoint, especially for grains and fertilizers. If anything shuts down on this river system, it affects everything that moves in the Mississippi River Basin, mountain range to mountain range. With the supply chain already a mess, this creates an even bigger issue for Agriculture. Consider what is moved quickly and efficiently on our rivers.

In 2019, soybeans and distillates (fuel) were the most shipped commodities. Soybeans were #1 at 65.6 m short tons (mst), followed by distillate fuel oil at 59 mst, corn 47 mst, crude petroleum 30.5 mst, coal and lignite 26.6 mst, gasoline 18.3 mst, petroleum coke 17.3 mst, nitrogenous fertilizer 14.5 mst, sand and gravel 12.3 mst, and animal feed 11.3 mst. This drought in an important watershed basin threatens waterborne trade, which sees 92% of the nation's agricultural exports. As of last Friday, the river was closed near Stack Island, MS, and Memphis, TN. As a result, over 2,000 barges are backed up.

The U.S. transportation system is made up of barges, rail, and trucks. Take barges out and that load is shifted to rail and then to trucks. Rail and truck are already maxed out. A rail strike is possible in our immediate future and rail is a slower means of transport. Amazon has offered truckers a much better "deal", including being able to stay at home every need, depleting the number of truck drivers needed. Rail is also suffering from a labor shortage. Neither of these 2 are as efficient as barging down the river. The U.S. transportation system is not designed to lose barge freight, just as the NG system is not designed to lose pipeline transportation.

Black Swan #3: Fertilizer is a Big Deal, and it is only going to become a bigger deal. It will be about price and availability.

The problem is the war and high NG prices in Europe. Because of high prices, most of the nitrogen production has gone offline across the EU. ICIS believes their operating rates are running at 30% of normal. They represent 5% of all global urea produced and 8% of all global anhydrous. 21% of the UAN comes from Western and Central Europe. That is a huge loss. Think about these losses. In the entire scheme of things, 5% is not much. If you put 5% less fertilizer on your fields in 2023, odds are you would not be able to tell the difference. But there are over 225 mmt of urea produced every year. 5% of 225 mmt is a very big number. In these global markets when referring to a globally needed product, small moves do not mean small tonnage.

The Chinese government has banned the export of urea. They represent 10% of the global export market, exporting 5.5 mmt/year. Moreover, Russia is playing political games with their fertilizer exports with Brazil and India. This plays into price volatility because these political games become major market moving/changing events.

Can we fix this problem quickly? The answer is no. Mosaic could expand their mining in Florida, but that is not "Florida". Florida's economy is based on tourism, not mining potash or phosphate. Plus, it would drive environmentalists crazy because it is bad for their "Mother Earth". That makes it very difficult for an on-going fertilizer manufacturer to even expand an on-going business.

Now think how difficult it is to begin a new facility and jump through all the legal hoops, let alone environmental restrictions. And before that, make sure you have $5B or $10B sitting around if you want to build a new "world scale" nitrogen facility that will be operational for up to 50-years. Then hope and pray the political winds continue to blow in your favor, knowing they can change every 4 years, if not every 2! That is because you need to be confident that your cost of NG will not change and destroy your profitability, like the EU is experiencing today.

In addition, fertilizer companies and the fertilizer market are not very giving on information. Information is very closely guarded and what information is given out is usually done very strategically. Let that sink in….

Fertilizer companies are planning fertilizer needs in the U.S. for 93 ma of corn and 88 ma of soybeans. They are anticipating lower demand for P & K. Their reasoning is that producers will look to reduce input costs. Nitrogen they will not fudge on, but they will on P and K because they will figure they can get by with that for at least a year and likely 2-years.

This makes sense for many producers, as they are in a corn/soybean rotation. If they cut on P & K on corn, that corn ground goes to soybeans in 2023, which gives them reasons to believe they can pass on using P & K again. Because fertilizer companies need to plan on demand, they track farmer's tendencies. This reduction fits into how they read producers, allowing them to forecast weaker demand for P & K this spring and thus, lessor price pressure to the upside for P & K this fall and into next year.

Getting back to NG, it is about nitrogen and Europe, because NG is the feedstock for the nitrogen production system. NG prices normally sit around the $5 to $7 range per MMBtu, allowing nitrogen manufacturing to operate at 100%. Price had since rallied to $100/MMBtu. Because of this price rise, all but 30% of Europe shutdown nitrogen production.

Price has since fallen to $50/MMBtu, a price level where nitrogen manufactures can begin coming back on-line. While this is good, there are now logistical issues in getting NG in Europe.

With Nord Stream off-line due to a terrorist attack and for the fact Russia stopped the flow of NG through Nord Stream, Europe now must move NG into Europe via barge, rail, or boat loads of LNG unloaded at ports and shipped by truck or rail. Europe was not set up this way. They were set up to take in NG via pipelines. So logistically, they do not have the transportation system in place to move the amount needed to the desired locations. Thus, no matter what the price, Europe will not get nitrogen production back to pre-disrupted levels in 2023.

Globally, nitrogen demand grows faster than new capacity can come on-line. That means supplies get tighter and tighter with each passing year. Moving forward, know that any “Black Swan” event that would disrupt transportation of product or production of products, will increase price volatility to an even greater degree in the future within the energy/fertilizer complex.