

**Dear Subscriber's Plus, Full Service Light, and Full Service Subscribers**

**Attached are our 2021 Target Zone Charts and Summary Analysis Report – December 20, 2020**

**Re-Attached February 8, 2021**

**\*\*\* Due to the unusually higher number of factors driving grain prices higher into 2021 and the amount of information that will be provided on each one, our Summary Analysis Report will be divided into three mailings to be sent out over the next three months to provide an in-depth analysis on each topic. All mailings will include the 2021 Target Zone Charts.**

**(2<sup>nd</sup> Mailing of 3)**

As we look forward, let us look at those market moving factors we listed in our 1<sup>st</sup> Analysis.

### **Market Factor Summary for 2021**

- (1) China, ASF and The Great Rebuild
- (2) China's Weather Calamities of 2020
- (3) China's "Farm Payment" Policies
- (4) China's Strategic Grain Reserves - **(4-new demand updates)**
- (5) World Weather Trends
- (6) La Nina
- (7) South American Grain Production
- (8) U.S & World Carryover Stocks
- (9) Exports of Competing Nations
- (10) U.S. Acreage & Production
- (11) Massive Debt/Inflation/USD Trend

- (1) China, ASF and The Great Rebuild
- (2) China's Weather Calamities of 2020
- (3) China's "Farm Payment" Policies
- (4) China's Strategic Grain Reserves - **(4-new demand updates)**

We will cover #1 through #4 first, with the 4-new updates to demand raising more questions than answers.

**The 1<sup>st</sup> new piece of demand news that came to light was when a group raised China's 2021/2022 demand for soybeans to 110 mmts.** (Note: 2021/2022) This changes the world demand situation considerably if it comes to fruition.

World demand is linear, meaning it is quite stable or constant. World grain demand increases approximately 1.2% per year. China's soybean demand had reached a projected 96 mmts before ASF devastated their hog herds. At peak ASF, estimated soybean demand from China had dropped to 84 mmts. After increasing protein production through other sources such as fish, ducks, geese, poultry and cattle, demand for soybean and soybean meal began rising consequently. Shortly thereafter, China was able to begin rebuilding its hog herd.

This rebuilding also required an internal change as to how hogs would now be grown. Before the ASF pandemic hit China, they grew approximately 50% of the world's hogs and of that 50%. Of that 50%, about 45% were grown in open pens, like how hogs were raised in the U.S. up until the late 60's, early 70%, when confinement systems began their integration of the U.S. hog industry.

China realized the absolute need to control and or to mitigate the death losses caused by this uncontrollable disease. Confinement systems would allow them to get a leg up on ASF. To that end, growing hogs in open pens would need to be highly regulated, if not eliminated. Hog production is being moved "indoors" at an expedited pace and at great expense; all efforts to build and maintain an adequate and reliable supply of pork for its nation's needs.

Consider the change in feed demand when upwards of 23% of the world's pork production goes from eating table scraps and turnip roots to a balanced feed ration? This "new" demand would be extremely consequential. It will increase what was a linear, demand calculation for world grain needs. While this is particularly good for price in the near term, it is not good if/when combined with a global reduction in world grain production.

This is what we forecasted last summer, caused by a significant shift in global weather trends. From 2013 to 2020, the global weather trend had on average, produced normal to above normal rainfall. The global trend shift we forecasted would extend for possibly the next 7-years, shifting to normal to below normal rainfall. If our global weather forecast is correct, the world will see a global increase in feed grain demand, accompanied by a decrease in global feed grain production.

This would have dire consequences on many fronts. Such consequences can already be seen with several nations placing export taxes on various feed grains, fearing a possible shortfall in production later this year. They are attempting to mitigate potential internal food shortages, rising prices, and the civil unrest that comes along with those two.

The worst consequence, should this scenario come together as expected, would be insanely high grain prices. We all have experienced the consequences to the Ag sector should that occur; prosperity in the short term, followed by its economic collapse. Would it be possible that the Ag sector could escape the most common, end-result from insanely high grain prices? We fear not. But if our forecast of years of normal to below normal rainfall on a global scale is correct, higher to much higher prices, with much greater volatility, would be the result. With the opportunity for substantial financial gains occurring nearly every year for an extended period of years, it could be possible to financially fortify one's operation against the low prices which will undoubtedly come. Prices would remain elevated until production once again, would exceed demand.

**The 2<sup>nd</sup> new piece of demand news came just weeks after the 1<sup>st</sup>. They updated demand for 2020/2021, raising this marketing years demand from 100 mmts to a range of 105 mmts to 110 mmts.**

We immediately said, What!" Our thought process jumped back to their 1<sup>st</sup> estimate of raising next years demand to 110 mmts. If they are now adjusting this year's demand by raising it to a possible 110 mmts, then their projection for 2021/2022 is now incorrect and will need to be adjusted higher.

For this marketing year, if demand really is going to increase 10 mmts greater than originally thought, soybean demand will outstrip world production. This will increase price considerably, which would be necessary for force more acres into soybean production in 2021/2022.

Farm Future's survey of U.S. grain growers reported producers were going to plant 94.7 ma of corn, up 4% YOY. For soybeans, producers told them 84.5 ma. Prove us wrong in the June 30<sup>th</sup>, 2021 USDA quarterly report when we say no way! By all numbers as of this month, it will take 90 ma of soybean plantings to maintain U.S. 2021/2022 soybean carryover at 150 mb. A carryover that low would maintain price above \$13.00. Being 3.5 ma below the minimum acres needed to maintain 2021/2022 carryover stocks would take 175 mb off the 150 mb number, resulting in a negative stocks number. If that would occur, the old high of \$17.79 would be revisited and likely broken sometime later this year.

To confuse this situation a bit more, **the 3<sup>rd</sup> new piece of demand news came from China's hog sector. New strains of ASF have developed, increasing death losses.**

These new strains came about from their absolute desire to find a cure for ASF and to find any way to control or slow the infection rate as quickly as possible. The need to minimize the financial losses quickly led to the use of unapproved or illicit drugs. It would be like using the same herbicide year after year. Weeds would build up a tolerance to the herbicide, rendering the herbicide ineffective. In this case, the AFS mutated into different strains. What little control they were gaining on ASF just got vanquished. It is our opinion, while short term negative to feed grain demand, it will be longer term, even more bullish. This will force China to push ALL hog production into confinement systems. It is the only way they can mitigate death losses from ASF.

As China seeks to stabilize their hog production ASAP, one choice they decided to take is to over-produce in the short run. China has accepted the fact that there is no and will be no control of ASF. If or when China does get control, does not matter today. They must deal with today and with the reality that they may never gain control over ASF.

This decision to over produce to off-set projected death losses will lead to greater feed grain demand. This may be one of the reasons analysts have been raising China's soybean demand for the 2020/2021 and 2021/2022 marketing years. In the Big Picture, the loss of feed grain demand from increased death losses in the short term, should be outweighed by the actions taken by China to increase hog production at an expedited pace. The rate they have been able to rebuild their hog herds was much greater than most the "experts" had forecasted. There is no reason not to expect the same now.

While the U.S. suffered grain production shortfalls in 2019 and 2020, China suffered from the same. China's greatest crop losses arrived in 2020, with drought, army worms, the worst floods in 200 years, followed by consecutive Typhoons over a 2-week period. Admitting and or disclosing production shortfalls is not out of character for China, nor the U.S.

It is coming to light for many that miss-leading the world as to what one's grain stocks are could have unattended consequences, not only for the nation doing it, but also for the world.

Last week's massive Flash Sales to China totaling a record 293 mb could be a precursor of things to come. A week after this surprise grain purchases were made by China, **the 4<sup>th</sup> new piece of demand news came to light**. Late last Friday, the UN's Food & Agricultural Organization, the FAO, reported an incredibly significant adjustment lower in Chinese corn ending stocks. The FAO reduced China's grains stocks by 54 mmts. A 54 mmt reduction in Chinese corn carryover stocks would take world ending stocks down to 230 mmts. That would make for the tightest world stocks for corn since 2013/2014, when U.S. corn prices rallied to over \$8.30/bu.

Note that the world stocks estimate for corn in today's USDA report is for 280 mmts. The FAO is 50 mmts lower. Will the USDA input even a percentage of the FAO's number, or will it be totally ignored?

Those massive purchases by China came in the last week in January. The USDA need to account for these sales in today's stocks report. Adding in all of January's exports sales takes total sales to 87% of USDA's projection for 2020/2021. That is far above the export sales pace of 2019, which was at 52% for this date in time and 50% for 2020. The question everyone has is will they make the "required" adjustments to U.S. corn carryover stocks in this report?

In the same vein, the FAO made consequential changes to world stocks by reducing China's corn stocks by 54 mmts. Are these numbers something the USDA has in their computations or is this something new to the market that only the FAO came up with 3-days ago? If this is something the USDA is aware of, will they show the necessary changes to world stocks in this Tuesday's data dump?

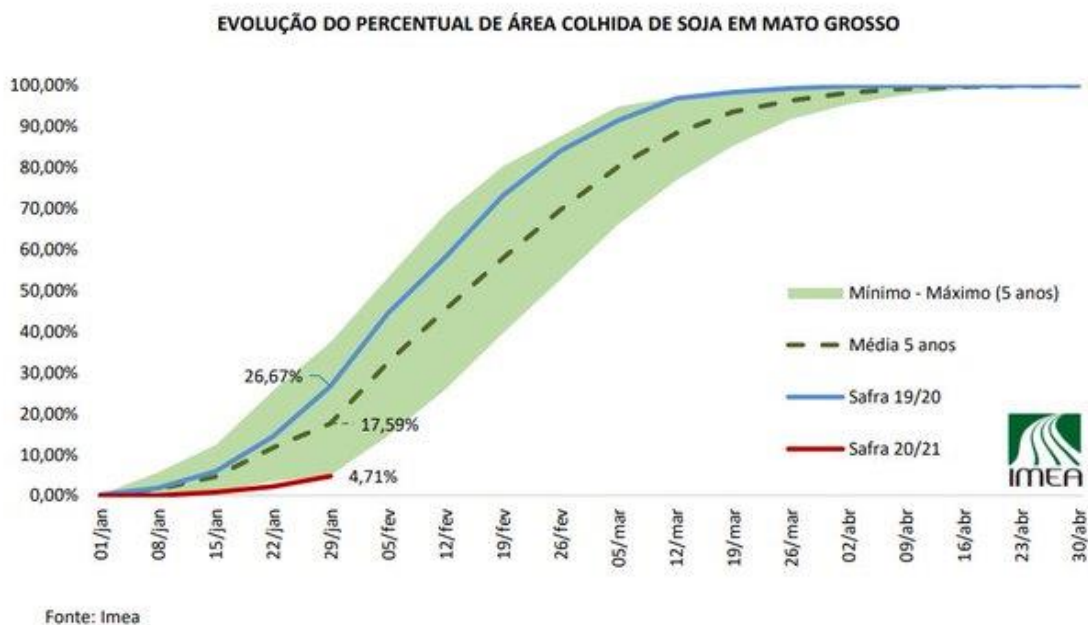
As you can see, the USDA can have fun with numbers in 2-days. They can release a very bullish stocks report on both corn and soybeans. Or they can choose to "manage" price for the benefit of their major commercial donors to their short-term advantage. The USDA has never been one to make wholesale changes to the supply/demand equation. If they do, those changes tend to be to the financial detriment of the producer.

- (5) World Weather Trends
- (6) La Nina
- (7) South American Grain Production

The central feature in this year's world weather trends is the on-going La Nina event. Beginning last summer, this weather phenomena gave part of Brazil and Argentina its driest 4-month period, pre-plant, in 4-decades.

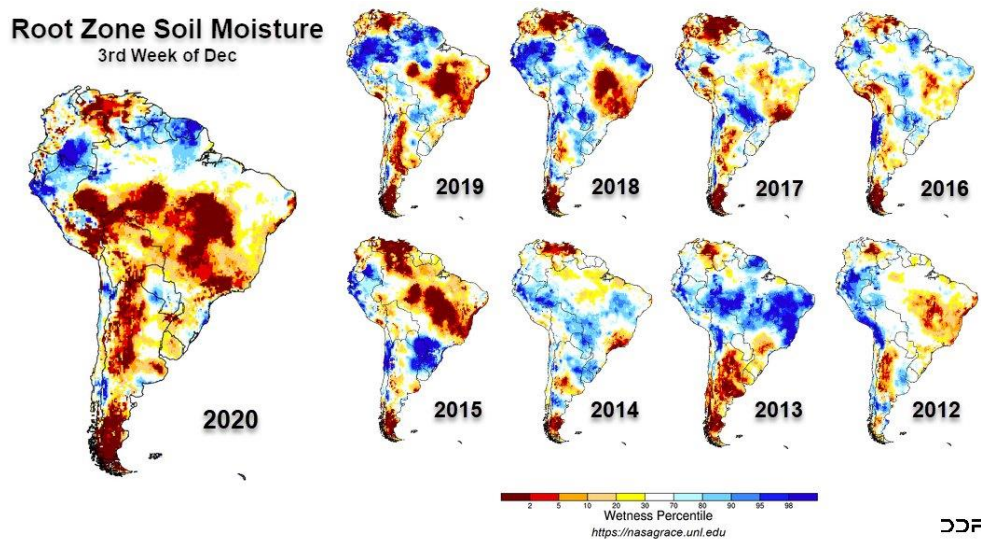
This depleted their subsoil moisture levels and significantly delayed Brazil getting its 1<sup>st</sup> soybean planting completed in a timely basis. This fact has led to a much-delayed harvest of their soybean crop. Adding to that delay has been heavy rainstorms, "training" through Southern Brazil, Uruguay, and Paraguay. These significant rain events have been slowing moving northward last week, continuing today across Central Brazil.

Soybean harvest in Mato Grosso, Brazil was only 5% complete as of Friday vs 27% last year and 18% average. Plantings of corn in Mato Grosso had only reached 2% versus 22% last year and 15% average. The risk of Brazil's Safrina corn crop, their 2<sup>nd</sup> crop corn, suffering yield losses from their normal drought cycle has increased exponentially, due to all the delays in getting out their 1<sup>st</sup> crop soybeans.

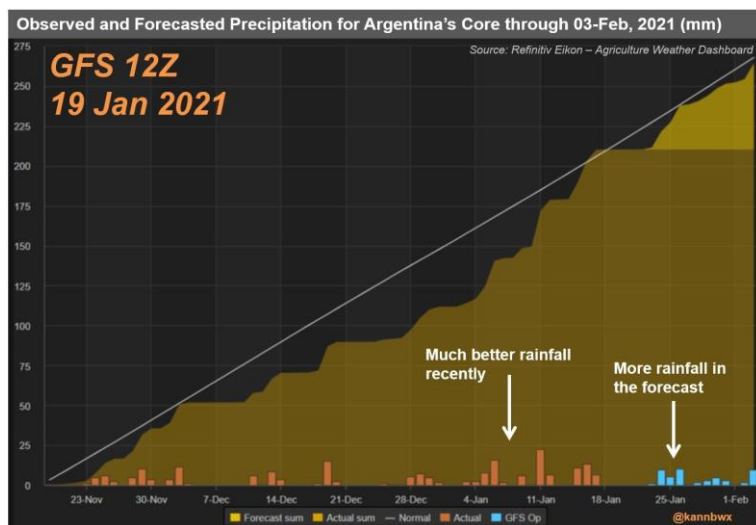


Not only was South America dry early, but many areas have also continued dry or have continued to receive below normal rainfall through the month of January.

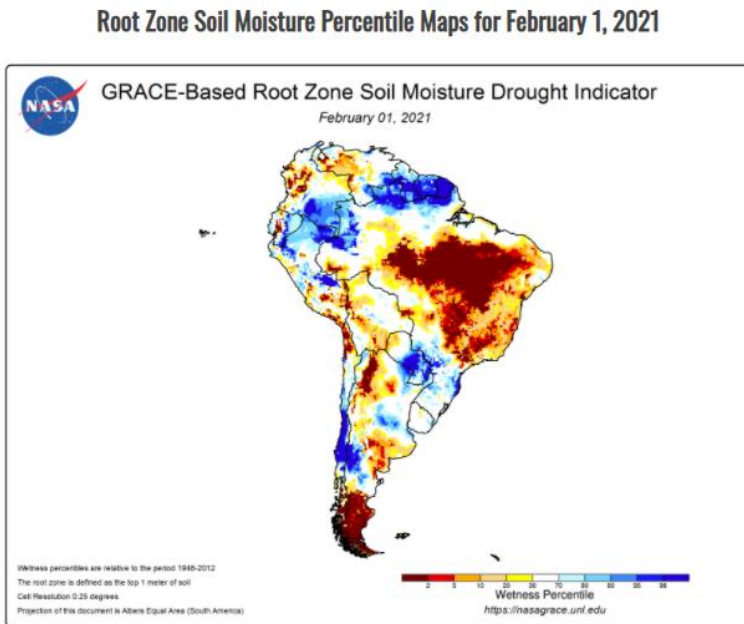
Late last fall we forecasted the worst drought for Brazil/Argentina in decades. It was reported in December that parts of Brazil were seeing their worst drought in 40-years. The below normal rainfall trend for the last 6-months – the last 6-months – is taking its toll. Rains did arrive, but subsoil moisture levels remain precariously low in many locations, as we work through February and March. One week of intense heat will begin a backwardation of crop conditions for those who missed the recent rain events.



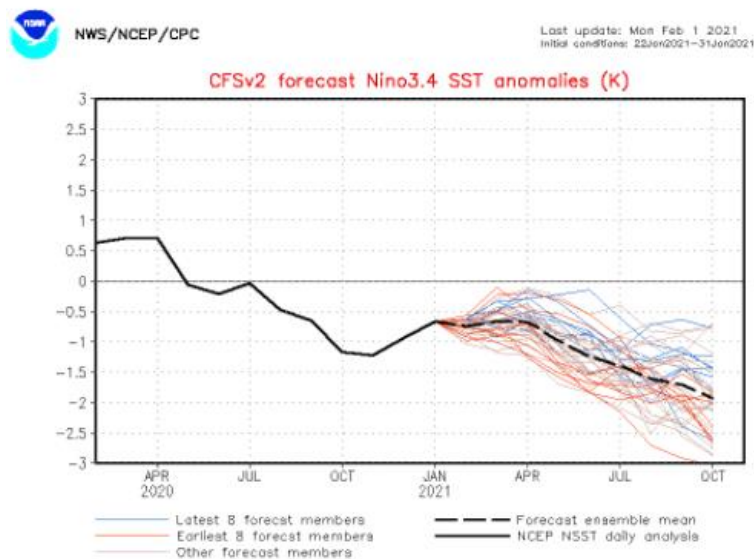
This chart shows the continued trend of below normal rainfall.



A current root zone soil moisture map.

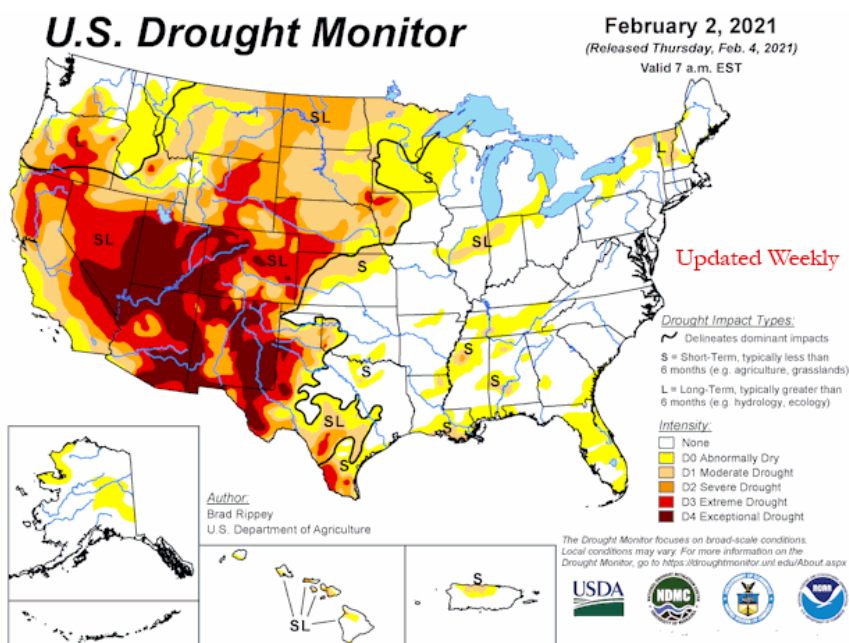


This La Nina seems to be confusing many. Normal would see it start weakening in January, beginning its slow demise into late spring or early summer in the U.S. As you can see by the graph below, the average of all guesses shows this La Nina maintaining its current strength through April and then growing stronger. If this would occur, it would increase the odds of drought conditions in the U.S. Midwest this summer. La Nina maintaining its strength would not be normal.





The odds of a significant drought occurring in the U.S. Midwest in 2021, if this La Nina does in fact strengthen this summer, is greatly enhanced by the current drought conditions across the western half of the U.S.



With the limited soil moisture reserves in many parts of Brazil and Argentina, it will take timely rains to obtain full production. Generally, excessive rains benefit Brazil's soybean crop. Crop losses from areas that receive too much rain are more than offset by surrounding areas which benefitted from the needed rainfall.

The Brazilian crop which stands at most risk from what has occurred to date and what should occur over the next 3 months from the on-going La Nina is their 2<sup>nd</sup> crop corn; known as Safrinha Corn.

## (8) U.S & World Carryover Stocks

We have previously stated that the world's supply/demand balance sheets are so tight they can not withstand anything less than trendline yields anywhere in the world in 2021. Prices will continue to include a sizeable weather premium until on-going weather risks have been mitigated.

The world's balance sheet appears to have sustained a sizeable reduction in world supplies, as well as increased demand since our last writing. Due to the nature of governments to manipulate the data in their best efforts to restrict upward price pressure, it is difficult to state with absolute certainty that this is in fact the case. Knowing their nature allows us to draw a reasonable conclusion that U.S. and world grain stocks of corn and soybeans are and will be stated higher than what they really are. How the trade manages price to ensure supply chains do not run below pipeline supplies is anybody's guess. Basis levels will provide good insight as to the availability of supplies in specific markets. Gulf basis levels will tell us the same concerning foreign demand.

## **(9) Exports of Competing Nations**

K.C. wheat prices lifted \$1.30 after Russia began talking about an export tax to control the outflow of wheat from their nation. That was a surprise to the trade, since Russia had good wheat production in 2020 and their wheat stocks were at record levels.

A combination of the Wuhan Virus (WV), extremely poor planting & germination conditions of their winter wheat crop, and rising food prices within, caused them to take preemptive measures.

Russia gave their producers a chance to avoid the tax by setting a March 1<sup>st</sup> date for implementation. By doing so, sellers and exports can push wheat out into the export channels in advance of the tax. This would-be short term bearish, increasing the availability of wheat in the near-term. The Russian government announced a 2<sup>nd</sup> new wheat export tax, which would go into effect as of June 2. The tax is described as 70% of the difference between a wheat price based on export contracts, starting April 1 and \$200/mt. At Friday's price, this tax would come to over \$2.00/bu.

This change may have unintended consequences of encouraging short-term selling to avoid the higher tax and/or cause Russian farmers to plant other non-taxed crops in 2021.

This scenario is playing out in other nations. Ukraine, after a shortfall in their 2020 corn crop, is also seeking to control or limit their export activity.

Argentina has stated they would do the same with their exportable wheat supplies and followed that with comments about export taxes on their corn supplies, too. Both times, their farmers revolted to the idea, forcing their government to back off – for now.

While exporting nations are taking a 2<sup>nd</sup> look at how they are managing the supplies they have on hand and what they may produce in the future, importing nations are now rethinking their ideas that just-in-time-inventory control was a good thing.

With the onset of the WV, China realized exporting nations could close their ports or port workers could refuse to work, making imports from those nations unavailable at worst and unreliable at best. With food security being a national security concern for China, just-in-time inventory control is not a non-manageable event. Their inability to control ASF or the WV has dramatically changed how China views the global supply chain; better us have it than not have it. It could likely come down to better us have it than anyone else have it.

To that end, can anyone even say what specifically is China purchasing all the world's grain for? Have their cupboards run bare? Is China buying to replenish shrinking reserves? Are China's grain supplies adequate and they are buying to maintain current stocks and meet increased feed demands? Is China seeking to build a 1-year reserve of all grains? Is China's buying spree caused by their concern of other nations cutting off exports to guarantee their nation's supplies, fear?

When major exporting nations realize they could have a food crisis and begin restricting exports of food, importing nations wake up. If more nations fall into this line of thinking because more exporting nations begin limiting exports of necessary grains, demand will increase.

We have seen this within nations when people fear shortages; they create the shortage. This condition could be created on an international level. When a nation's main supplier of a food product puts its buyers on notice that its ability to purchase that commodity will be limited in the future or completely shut off, panic would surely ensue. The buyers in need of this commodity would seek other sources, bidding its price up to secure whatever amounts are needed. Other nations would realize the growing concern and if in need, would start bidding up for the same.

This is what is beginning to occur. With supplies on the precipice of not enough, any real loss of production in a much-needed commodity could begin a mad-rush for product.

One hates to say it this way, but the real fun begins when the market realizes the supplies necessary to fill everyone's needs do not exist. If current trends continue, several commodities will fall into this category.

Relentless buying of grains from the U.S. by China and other nations has seen U.S. stocks of corn, soybeans, wheat, and sorghum fall in each successive report. This lower trend has also been seen regarding world stocks of grains. As long as these lower trends continue, prices will continue their higher trend.

While all grain producers are happy with the higher trending prices in grains and with all eyes on China, we need to refocus on other nations to gain a look at the bigger picture. It is not just the U.S. that is seeing significantly greater demand from importing nations.

Canada has a short canola crop. During last year, China was at odds with one of their citizens being detained by Canada at the bequest of the U.S. China decided to punish Canada for their insolence by not purchasing commodities from them. Because China needs what Canada produces, China went through 3<sup>rd</sup> parties to acquire Canada's canola and vegetable oils. Does anyone really think everyone was blind to this?

As a result, Canada is nearly sold out on the exportable supplies of canola and their prices have skyrocketed. Resistance on the charts held firm since 2014 at \$5.50/bu. The record high in 2012 was \$691.10, which got blown away this January at \$724.50. Canola's highest high was set in March of 2008 at \$744.50. Keep watching, as it will likely give way. You might be asking yourself, why are U.S. soybeans trading at such a low price then, which is a very valid question?

Were you aware that Australia is in the midst of what is believed to be its biggest ever grain export program? They have been building extra capacity so they could increase their exports, which has allowed major terminal operators to concentrate on loading cargoes of 50,000 tonnes or more of barley, canola, and wheat. Last month, Riordan Grain Services used a mobile ship loader in Victoria to fill the holds of a 50,000t cargo bound for Saudi Arabia for a counterparty. In a two-port load, Cargill's new set-up at Port Adelaide's Inner Harbor also loaded barley last month which is now on its way to Saudi.

Saudi has been the single biggest market for Australian exporters in January-February. All this business is a nice indication of Australian barley pricing into global demand, helping to offset the absence of Chinese buying interest this season. *(Interesting how many nations China is attempting to force into making them do what they demand. Yet, they still end-up buying the products from them anyway; in a roundabout way.)*

## **(10) U.S. Acreage & Production**

With rising prices, the next game in town will be forecasting U.S. grain acreage and its production. The production part will be easy. The USDA only goes off historic, trendline yields.

Price, planting conditions, and restrictions will determine U.S. planted acres in 2021. Anytime corn offers producers good profit potential, corn growers will lean in favor of planting their favorite crop. The soybean/corn ratio does not lean strongly in favor of soybeans over corn.

While the Farm Future's survey of U.S. grain growers reported producers were going to plant 94.7 ma of corn and 84.5 ma of soybeans, we will humbly disagree. The Derecho that hit the Midwest will change many producers plans. We have heard from seed dealers that soybean seed sales are "through the roof" in those areas hard hit by the Derecho. Many producers had little choice but to disc up their corn, which planted many seeds for 2021. In order to control the volunteer corn that is certain to follow, the only choice left is to plant soybeans.

A 2<sup>nd</sup> issue is corn after corn. A good many of producers had a short corn crop in 2020 when planting corn after corn. This short crop was caused by the lack of moisture to sustain the crop to maturity. This year's soils will begin the season noticeably short of adequate subsoil moisture. Corn on corn will perform worse in 2021 if rainfall is below normal. If temperatures come in above or much above normal, production will take quite a hit.

## **(11) Massive Debt/Inflation/USD Trend**

With the new administration hell bent on burying this nation deeper in debt than anyone could or would have imagined just 4-years ago, we must ask where to from here? What will it do to "our" future in agriculture?

One of the theories behind massive debt is that you can buy your way out of it with cheap dollars. That would mean driving the USD into the ground, making it worthless. While that may help with the debt, it does not help the masses one bit.

Normal has not been normal for some time. Deficit spending is supposed to create inflation. We have inflation in some categories, but when averaged together, it does not show much. When we see the price of a haircut jumping from \$10 to \$12, we know it was a 20% increase. When gasoline jumps from \$2.00/gal to \$2.30/gal., we know that is a 15% increase. We see major items purchased on a consistent basis jumping 10, 20, or 30% higher and it is hard to believe the government when they say the “adjusted” inflation rate is only 1.4%.

Just FYI, the consumer price index (CPI) is a basket of goods which includes basic food and beverages such as cereal, milk, and coffee. It also includes housing costs, bedroom furniture, apparel, transportation expenses, medical care costs, recreational expenses, toys, and the cost of admissions to museums also qualify. Education and communication expenses are included in the basket's contents, and the government also includes other random items such as tobacco, haircuts, and funerals.

Deficit spending is supposed to drive the USD lower. While that was the case for the last year, the USD began trending higher the 2<sup>nd</sup> week in January. The strength or weakness of the USD is not based only on U.S. spending, but also the spending of other nations and the economic performance of other nations in relationship to ours. If the USD is falling, it makes the products the U.S. sells to other nations, like grains, meats, airplanes, etc., less costly. Could we say U.S. products were devalued or went on sale?

We know this administration is going to jack up energy costs so that green energy costs become “cost effective”. Those efforts to raise the price of crude oil and its by-products will increase fuel, fertilizer, and chemical prices way above any CPI number they put out. The last we looked; farm expenses of the kind listed above are not in the CPI.

One thing we have stated many times, but bears repeating, is that in inflationary times, everything you own, everything you produce and everything you buy will go up in price. The farm sector is unique because it will take an inflationary “broadside hit”, while other sectors are largely missed.

If there is a food shortage, your income could easily double. Your **profit margins** the 1<sup>st</sup> year grain prices explode could increase 10 to 20 times. But when you make more money, the snakes come out, raising the prices of all your input costs to take those profit from you. It is not necessarily because their costs went up, it is because they can. Landlords will do the same thing. Once you have a good year and can put some extra profits away or pay down debt, they want some of it.

That is why when you see the first signs of increasing profits, you lock in all your input costs you can, for as many years ahead as you can. If possible, you lock in 5 to 10-year land leases. One suggestion we made was to buy stock in a fertilizer company to help offset rising fertilizer costs. If one can lower their interest costs on long term debt, one does that ASAP. There are many ways to reduce costs, the sooner the better.

**A Conclusion:** We began on this topic asking where to from here. In most instances, the so called “experts” get it wrong all the time. So instead of trying to out guess the experts, we will stick to simple.

The farm sector is a unique group whose businesses are tied to specific factors that directly affect this sector. The one factor that will either direct or control many other factors is the rising prices of grain. If not brought under control, it can bring down an entire house of cards.

Governments are already stepping in to control food price inflation in their nations. Other governments are beginning to see the issue and are stepping up their food/grain purchases. The more fear that comes into this equation, the faster prices will rise. Just-in-time inventories is not going to work in this environment. For those who have practiced just-in-time inventory control for decades and are the last to recognize the problem, they will suffer the most.

That which can be **the first** to immediately bring these issues front and center is a significant drought in Southern Brazil and Argentina during the next 2-months, March and April. The stage for this event has been being setup for the last 6-months. The curtains will be pulled back in 4-weeks. As the audience, we will sit down at that time to see what actors, if any, show up.

**Target Zone Charts:** The Upper Third price projections for the 3-grains were set conservatively. If **all** the players come to the stage and dance **in 2021**, all grains will rise higher than the top side of their individual, Upper Third price range.

When this price rise began, wheat had the least chance to sustain a substantial rally. To date, we would say wheat has already achieved that. The “experts” are claiming wheat could now lead. While true, what they miss is if wheat does lead, the issues that would cause wheat to push higher would also affect corn and soybeans. We would in fact, then have a 3-headed tiger.

We will draft our 3<sup>rd</sup> and last update to our TZC after the USDA drops its Quarterly Stocks and Planting Intentions Report on Wednesday, March 31. At that time, if the actors came to the stage to dance, we will make the necessary adjustments to our TZC.