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Remembering Carole Brookins

COVID Analogies and Outlook

Oil and Agriculture

Livestock Round Up

Remaking a Food System

Will There be A Tech Title in the Next Farm Bill?

WORLD PERSPECTIVES: AG REVIEW

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- *WPI really provides us with a life-blood service.*

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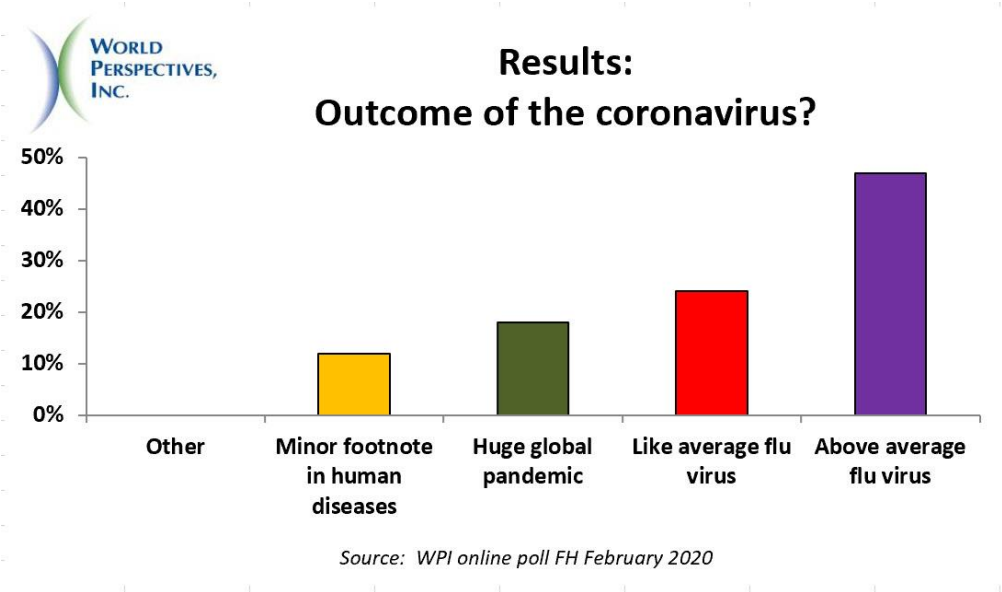
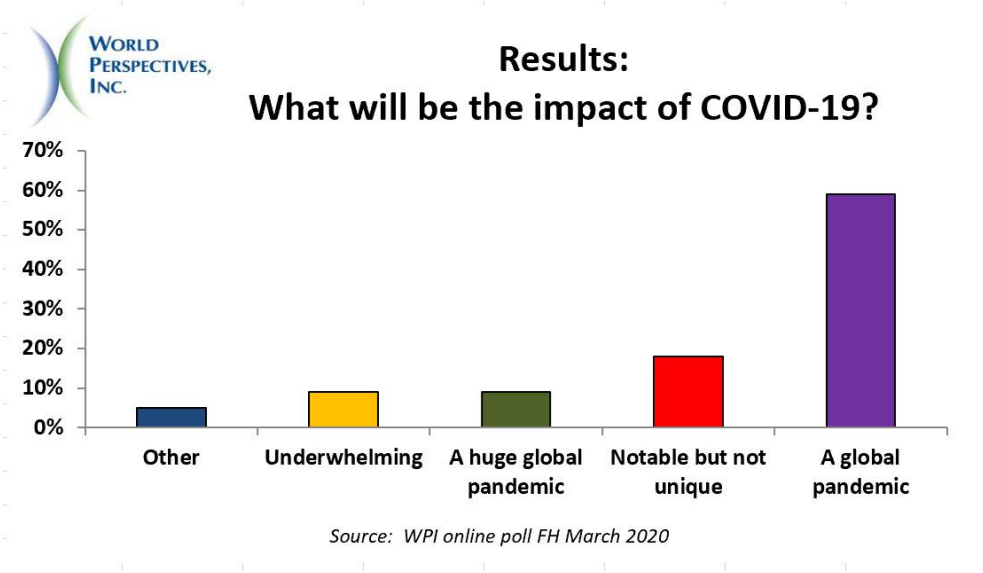
WPI POLLING

Below are the results of two recent WPI polls. Visit www.worldperspectives.com to cast your vote in our current survey.





FROM THE WPI TEAM

The Big Story

By Gary Blumenthal

The constant challenge for analysts is relevance. What does the reader need to know and what is our unique value contribution toward that necessary knowledge? That can be a struggle in ordinary times, but this is no ordinary time. Now, an infectious agent that is physically so small it is sub-microscopic has become so large that it can't be ignored.

In this edition of *Ag Review*, we put the coronavirus under the microscope for its impacts on the food and agriculture sector. There will be longer term considerations from this crisis than just panic buying at the grocery store. However, there is a risk when one focuses so intently on one thing that we ignore other important considerations. Mother Nature has a maelstrom of factors she throws at the complex process of growing and delivering food, and we cannot ignore those.

Then there is the big picture, forward looking stuff like the implications of technology on the sector, and the ongoing efforts by policymakers to shape and curve how food is grown and delivered. COVID-19 is huge – it is the big story. We cannot ignore it because it will change our lives. Worse, it will take lives, including some people that we know and love. That is unfortunately truer than we would like.

In 1980, a diminutive woman from Gary, Indiana named Carole Brookins threw caution to the wind and started World Perspectives. She left a vice president position at a major Wall Street brokerage to remedy what she saw as a huge divide between the perceptions of policymakers toward agriculture, and what the trade understood. Forty years later, this business along with her many other creations are still going strong, but sadly she is not.

On 23 March 2020, this tiny sub-microscopic organism laid to rest this most energetic and creative giant of a human being.

We will mourn this loss, but we will also pay tribute to Carole by continuing to do what she taught us. To always think big picture, and to contribute value-adding knowledge to the world around us.

Carole Brookins
Founder of World Perspectives

To read our 23 March remembrance of Carole: https://www.worldperspectives.com/about-us/wpi-spotlight

WPI MARKET ANALYSIS

COVID Analogies and Outlook

By Gary Blumenthal

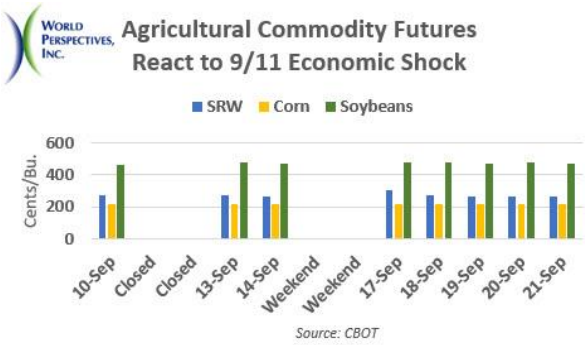
There have been suggestions, almost too late now, that financial markets should be closed for a few days to enable a more rational assessment of the coronavirus situation and its actual impacts on the economy. It is noted that this is what occurred following the terrorist attacks on 11 September 2001 (9/11). The coronavirus outbreak and 9/11 are similar in that they involve systemic shocks, but they will take very different paths.

The long-term cost estimate of the 9/11 attack ranges from $3 – 5 trillion, but that includes significant war funding. It did ensure an economic recession already underway, but it was a relatively mild decline, lasting just eight months and shaving just 0.3 percent off of GDP.

The stock market has likely already suffered a larger loss this past month than it incurred after 9/11. Like that period, the volume in options has expanded. Agricultural commodity futures have thus far tracked equities lower, but only by direction and certainly not by severity. While the stock market fell in 2011, there was little immediate impact on agricultural futures (see graph below). After closing for two days, the major commodity contracts actually closed higher and remained mostly a few pennies higher after several days of trading.

The bottom line is that the economy has not experienced a shock like this in the modern era. There have been several announced closures and reduced economic activity, and there is worse to come. While airline traffic was shut down for two days in 2001, air carriers this time are facing months of declining customer base. Discretionary activities like sports, entertainment, hotels, restaurants, institutional food service, transportation and other sectors will incur some of the worst demand declines in history.

As in most dramatic events, it isn't the fall but the recovery that is most important. China is now suffering a feedback loop whereby its supply chain capacity is coming back online but external demand has plummeted as its export markets are now dealing with the virus. A return to global economic equilibration and growth may take until later in the year.



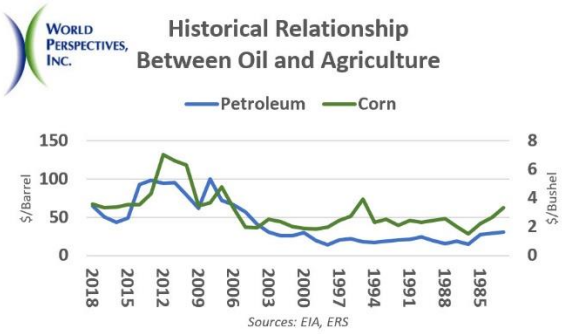
Oil and Agriculture

By Gary Blumenthal

An oil war has begun between Saudi Arabia and Russia and its impacts are important for agriculture. Energy products are key inputs, affecting field work costs, fertilizer prices and ultimately marketing. The U.S. Energy Information Agency (EIA) had predicted an average oil price in 2020 of around $61/barrel; futures were down at one point to around half that level.

EIA's Short-Term Energy Outlook for February, which it says, "reflects both the effects of the coronavirus and warmer-than-normal January temperatures across much of the northern hemisphere," did not reflect a price war. It called for prices to rise this year and average $68/barrel in 2021.

Markets are global and commodities are fungible but even an effort to partially disaggregate some factors still finds a strong relationship. The chart below uses the Cushing, Oklahoma oil price rather than Brexit with its slightly stronger relationship to Middle East/Russia supplies. And it uses the Central Illinois corn farmgate price rather than futures. Yet the result still reflects a strong correlation (0.767) between petroleum and a key agricultural commodity.



Livestock Round Up

By Dave Juday

When it comes to the coronavirus, there is a lot more that is unknown than is known at this point, causing a general level of anxiety and bearishness in the economy and across equities and commodity markets, including livestock poultry and meat.

At this point there seems to be three perspectives from which the situation can be assessed:

- What we know
- What don't know
- What we don't know that we don't know

The real uncertainty hanging over the market is that last category – the things we don't know that we don't know, and markets will want to lay off those risks. Those issues will evolve with time, one way or another.

That leaves the other perspectives to consider. What we do know is that the virus is spreading, concerns are growing, and travel, business conventions, sporting events, gatherings and social/entertainment activities are being curbed. This will impact food service demand for proteins in some fashion. We know that cheese is highly dependent of food service demand, and that the dairy sector was counting on stabilizing this year. We also know that exports are going to be affected in the short term, and that medium-term economic ripple effects from containment efforts could extend the period for slackened demand.

However, given the severe protein shortage in China, exports are more likely to pick back up post-virus more quickly than they would otherwise. In fact, Sanderson Farms reported shipping 522 containers of chicken to China, which is up from 420 containers at the end of February. China is in the market for drumsticks, leg quarters, legs, and paws and gizzards, all which help boost bird values.

We know that coming into this situation, we were already looking at burdensome supplies in the protein sector; production is outpacing demand (domestic and global) and this was the year that expectations for export demand was to rebalance supply and demand.

- October and November placements of cattle on feed were strong and marketings and feedlot inventories will be relatively heavy for the first half of the year.

- Hog slaughter and pork production remains high; in early March slaughter was 2.68 million head at an average weight of 288 pounds and total production of pork is up 4 percent year to date.

- Broiler slaughter was up 5 percent, and ready to cook weight was up 8 percent, both on a year to date basis. Based on the most recent WASDE, broiler production is up to 99.2 pounds per capita, 105 percent of last year and 107.5 percent of 2018.

This all is heading into the heavy summer demand season in late May, which also coincides with warmer weather that is expected to reduce/slow the spread of the virus. Nonetheless, it is a lot of supply to work through.

What we know that we don't know is the prolonged effects of the current containment policies. Just consider that the National Basketball Association (NBA) suspension of games. The first week there were 19 scheduled games, and the average NBA attendance of 17,857, or about 340,000 people, a large percent of whom did NOT buy hot dogs, go to dinner before or after games, etc., who otherwise would. And that is just the impact of the NBA schedule, a small, albeit dramatic, example of all the many cancellations, postponements, and re-scheduling.

We don't know what this expected drop in eating out will mean in terms of fast food restaurants which are a major driver of ground beef, chicken, cheese and even eggs. Will drive-through window demand fall off, or will it pick up with people telecommuting and not spending the day in the office? We know human behavior is key to domestic demand, but we don't know how people will behave. The best guess is that retail grocery sales of beef, chicken and pork will weather things better than food service/restaurant sales, which means certain items will be affected depending on where demand comes.

Chicken wings, for example are driven by food service sales and enjoy seasonal demand at its peak from the NFL Super Bowl through the "March Madness" National Collegiate Athletic Association (NCAA) basketball tournament. For three of the last four years, for the period of the NFL Super Bowl through the end of the NCAA basketball tournament, wholesale wing prices have averaged more than 4 percent higher than the annual average price. Wings are 11 percent of the whole bird cut out by volume, but 44 percent of the total pound value of RTC broilers.

The same type of dynamic applies to pizza and mozzarella cheese, which is the most consumed and highest demand cheese made from U.S. milk. For beef, food service is important to higher grade middle meats (of which we have more and more higher grading beef) and to ground beef, for pork, food service impacts bellies and loins. All this potential demand change will shake out in meat, cutout, and ultimately cattle and hog prices.

WPI INTERNATIONAL ANALYSIS

China In-Country Analysis - 18 March 2020

By Global Agribusiness Partners

In a twist of irony, China identified several new cases of the novel coronavirus (Covid-19) last week as repatriated nationals residing in Europe returned to Beijing infected. Those new cases raised mainland China's total to 81,102, a weekly increase of 338 (+.420 percent). Some discussion has emerged regrading reinfection or recurring cases, however, the official public health response has been to question whether the suspected individuals were released from healthcare facilities prematurely. Deaths related to the disease, however, rose by 610 cases to 3,237, a stark reminder of just how deadly Covid-19 has been, particularly for older populations and those with underlying health conditions. On the recovery side, mainland China still accounts for the lion's share worldwide with a total of 69,663 cases or 84.8 of all recoveries, an improvement of 3,923 cases in the past week.

Outside of China, the difference could not be more dramatic. The worldwide total through this morning has reached 204,255 cases according to the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). That amounts to a one-week increase of 85,510 cases (+72.0 percent). Equally important, more than 60 percent of all cases worldwide are now outside of mainland China as the rest of the world total has reached 118,745. Non-mainland China fatalities have risen sharply to 5,007 cases, up from 1,121 (+346.7 percent). Of that total, Italy has suffered nearly 50 percent of the Covid-19 related fatalities outside of mainland China.

Testing Data Reveal Huge Holes in Western Public Health Systems

The explosion of non-mainland China cases is largely owed to delayed responses by the governments of Italy, Iran, other Western European countries, and the U.S. An examination of the testing data and quick quarantine responses in places like South Korea and Taiwan reveal why their numbers have remained under control and why fatalities have been slowed to a crawl.

To be sure, younger and healthier populations with fewer smokers have helped lessen the impact in these countries based on Covid-19's infection path and the physiological responses it generates. Through yesterday, South Korea with a population of 51.5 million has completed 286,716 tests. Total confirmed cases as of today stand at 8,413 for a hit rate of 2.9 percent. Total fatalities in South Korea have amounted to 84 cases or nearly 1 percent of all cases, while recoveries have reached 1,540 or 18.3 percent of identified individuals.

The following table compares several countries and underscores why the exponential growth outside of Eastern Asia will continue until testing and isolation procedures dramatically improve. Granted a sudden rush of infected people to beleaguered health systems will likely overwhelm underfunded and undersupplied facilities, but unless Chinese style shelter-in-place measures are deployed for the next month, then the exponential growth in new cases will continue for the specific reason that asymptomatic spread has been the real driver of the global growth of the pandemic and most asymptomatic individuals have yet to be tested and quarantined.

COVID-19 TESTING, CASES, DEATHS, AND RECOVERIES FOR SELECT COUNTRIES

Country	Covid-19 Tests	Cases (% Rate)	Deaths (% of Cases)	Recoveries (% of Cases)
Japan	16,484	889 (5.4%)	29 (3.3%)	144 (16.2%)
South Korea	286,716	8,413 (2.9%)	84 (1.0%)	1,540 (18.3%)
Taiwan	18,812	100 (.53%)	1 (1.0%)	22 (22%)
Italy	148,657	31,506 (21.2%)	2,503 (7.9%)	2,941 (9.3%)
France	11,071	7,652 (69.1%)	148 (1.9%)	12 (.16%)
United Kingdom	50,442	1,961 (3.9%)	71 (3.6%)	65 (3.3%)
United States	41,552	6,519 (15.7%)	115 (1.8%)	15 (.23%)

Sources: OurWorldinData.org, COVID-19 Tracking Project

Trump Rhetoric Could Impact Trade Deal

The President's continued reference of Covid-19 as the "Chinese virus" continues to stoke conspiracy theories and build up a reservoir of ill will. The nearly two-year trade war, the outbreak of African Swine Fever (ASF), the Hong Kong riots, and the human rights violations involving Uyghur Muslims had already left a bad taste in each country's mouth and fueled the imaginations of each nation's radical conservative sectors.

It was just last week that a spokesperson from China's Foreign Ministry argued that the U.S. military brought the coronavirus to the Wuhan during the military games held there last October. Meanwhile, the Trump administration's slow response to communicate the potential of Covid-19 to wreak havoc on the U.S. health system and economy is now on full display. In neither case, has the U.S. or China's central government performed admirably well in the past six months. As such, with a massive global recession around the corner and hording activity taking off, the time for coolheaded and well thought out diplomacy and strategic cooperation could not be more urgent.

China's farmers are reporting delays in planting and field preparations for a host of crops, including vegetables and grains. The financial repercussions of Covid-19 and the quarantines have made restoring supplies of seed and fertilizer very difficult. Returning to normal economic productivity is likely months away. Throwing rhetorical verbal bombs and continuing to implement punitive tariffs will only prolong the crisis.

China's Numbers Reveal Deep Damage

Based on this week's retail sales numbers and export figures, China's first quarter GDP will fall well below 6 percent and could ultimately be halved. As has been the case during past difficulties, the central government and its agencies are generally slow to release numbers in order to maintain social stability and not diminish the confidence of foreign investors. In this current case, the lack of regular employment likely contributed to the delay. Nonetheless, the reports are eye opening and of great concern.

Retail sales for January plummeted by 9.36 percent from December and then fell another 4.52 percent in February. On an annual basis, combined retail sales for January and February were down 20.5 percent from January and February 2019. Imports contracted by 4 percent to just under $300 billion for the first two months of the year, while exports dropped by 17.2 percent to just under $293 billion for the same time period. Foreign direct investment took a big hit as well and declined by nearly 9 percent for January and February combined to a total of $19.3 billion. Finally, the Yuan fell against the U.S. dollar by 1 percent in the past week to USD/CNY of 7.

With work life still a long way from returning to normal and schools closed, consumption will be constrained, household debt to GDP will rise, and industrial output will be down. The question remains how much stimulus will be needed and how the cash strapped provinces in the country's interior will be able to manage, as many bank loans were already problematic prior to the Covid-19 outbreak. Recovery in the livestock sector, particularly pork, will likely be delayed for at least a year or two beyond the Ministry of Agriculture and Rural Affairs (MARA) initial three-year target.

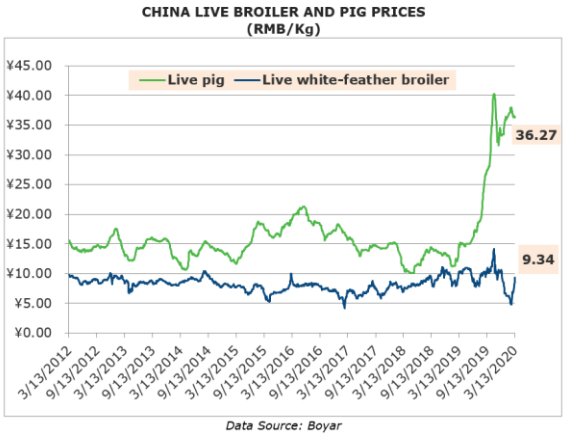
Livestock

Live Pig Price Inches Down Again, Broiler Price Soars

China's national live pig price has essentially flattened out, while live white broiler prices are seeing their best run since the fall of 2018. Stepped up imports and the release of frozen reserves while relatively small compared to total demand appears to have led to price stability. The sharp rise in the price of live white feather broilers since mid-February has a great deal to do with restored normal distribution channels and the reliance on online delivery for groceries in most urban areas, as consumers have been forced to buy more chicken in the absence of other alternatives. Families with limited work are also

having to rationalize household budgets. In the past week, the national average live pig price fell by RMB .12/kg ($.02/kg) or RMB .05/lb. ($.01/lb.).

In contrast, the average live white feather broiler price jumped by RMB 2.27/kg ($.32/kg) or RMB 1.03/lb. ($.15/lb.). In the past month, the live white broiler price has shot up by RMB 4.51/kg ($.64/kg) or RMB 2.05/lb. ($.29/lb.). This ongoing price rise in white feather broiler meat should continue to pave the way for more U.S. poultry exports, which had a surprisingly strong showing in January.



U.S. Poultry Exports to China Surpass $12 Million In Value

A breakdown of the January export data shows that while chicken paws and feet accounted for nearly three-quarters of the total value, leg-quarters did relatively well. With a total volume of 7,359.6 MT, frozen paws and feet accounted for 4,553.5 MT or 62 percent of the tonnage with a value of $8.82 million. The return of demand for paws and feet was largely expected. However, the tonnage for frozen leg quarters amounted to 1,692.6 MT worth $1.75 million. This translated into an average FOB value of $.47/lb. for the leg quarter.

Turkey exports, which prior to avian influenza ban were quite strong and steadily growing, had a reasonably nice month for January as well. A total of 480.2 MT of frozen turkey meat, wings, and offal valued at $662,000 for an average FOB value of nearly $.63/lb.

China's Major Hog Farming Players Continue Aggressive Expansion

As China's national hog production fell dramatically to 540 million heads in 2019, a year-on-year decline of 21.6 percent, the average live pig price rose by 42.5 percent in 2019. China's State Council and MARA issued several measures and policies to encourage farming companies to restore their herds and even expand production.

China's New Hope Group has announced plans to invest 4.36 billion RMB ($623 million) in ten new hog farms. Muyuan Foodstuff Company Limited, the second largest hog farming companies in China in terms of output, has increased its commercial capacity to 27 million head per year with the addition of new farms.

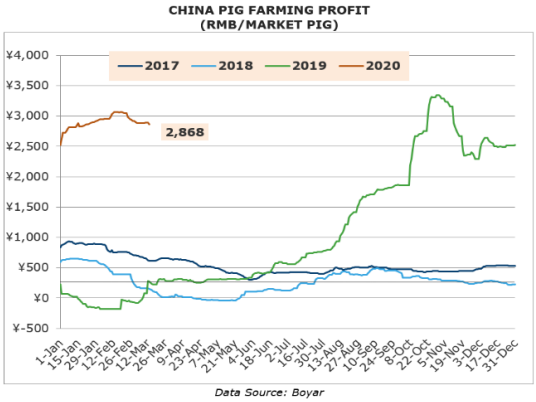
According to its recent annual report, Muyuan's total pig inventory exceeded 10 million head. As China's market shifts from one dominated by small holder producers to large, corporate farms which operate contracting models, the leading players are reaping the benefits of the higher live pig prices. The following table is based on the monthly reports of the top nine publicly traded companies and covers live pig sales for the first two months of 2020.

Company	Live Pig Sales for Jan/Feb 2020
Wen's Group	1.4 million head
Muyuan Foodstuff Company	1.395 million head
Zhengbang Technology Company	.64 million head
New Hope Group	.55 million head
Tianbang Company	.29 million head
Da Bei Nong Group	.15 million head
Ao Nong Biotechnology	.12 million head
Tankang Biotechnology	88,000 head
Tangrenshen Group	66,000 head
Total	4.70 million head

Sources: Company Monthly Reports

Among these major players, the monthly live pig sales for Wens Group, Muyuan and Zhengbang were off by 65 percent, 31 percent and 43 percent, respectively, compared with the same period in 2019. According to MARA's latest surveys, the total piglet inventory of 160,000 commercial hog farms with annual pig output of no less than 500 heads grew by 3.4 percent this past February from

the previous month. The average live pig operating profit declined again last week, falling by RMB 13/head ($1.86/head).



Oilseeds

Soymeal Inventory Reverses Course, Falls by 14 Percent

Falling port stocks of imported soybeans and steady feed sales, particularly in the poultry producing provinces in the south pushed down soymeal inventories last week. Feed production in Shandong has also picked up steam in recent weeks. Through last Friday, China's estimated national total fell to 440,500 MT, a decrease of 71,900 MT (-14 percent) from a week ago. Estimated soymeal stocks in Shandong, Guangdong, and Fujian declined by 31,900 MT (-82.4 percent), 26,500 MT (-70.7 percent), and 17,000 MT (-58.6 percent), respectively. Compared to the same week in March of 2019, last week's estimated national soymeal inventory was 203,400 MT lower (-31.6 percent). Going back to the same weeks for March 2018 and 2017, China's nationwide soymeal inventories were at 799,900 MT and 773,300 MT, respectively.

China's Estimated Soymeal Stocks (1,000 MT)

	Northeast	North	Shandong	East	Guangdong	Guangxi	Fujian	Total
13 March 2020	8.0	19.0	6.8	314.7	11.0	69.0	12.0	440.5
Week-on-week	3.0	2.0	-31.9	7.5	-26.5	-9.0	-17.0	-71.9
Month-on-month	5.0	1.0	-9.2	118.1	-21.4	19.0	-18.5	94.0
Year-on-year	-60.0	-4.0	-69.0	-33.1	-20.5	5.0	-21.8	-203.4

Source : CoFeed, China Grain

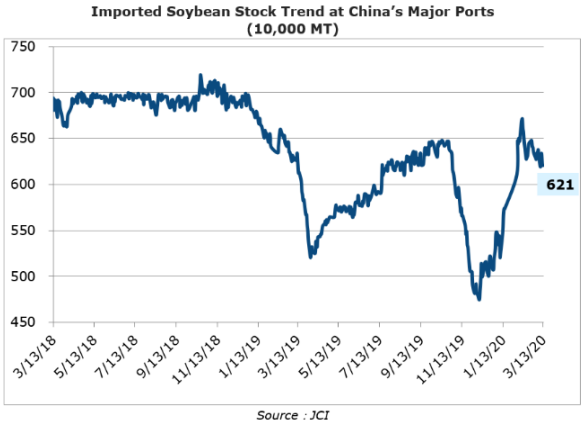
Imported Soybean Inventory Fall by Nearly 3 Percent

Imported soybean stocks saw sharp drops at the ports in Guangdong and Jiangsu, which more than offset increases at the major ports in Shandong. As of 13 March, China's estimated national total at its major seaports was down to just under 6.21 MMT, a decrease of 167,700 MT (-2.6 percent). Imported soybeans at the five major ports in Shandong rose by 93,800 MT (+5.0 percent) to 1.96 MMT or 31.5 percent of the national total. Imported stocks in Guangdong fell to 14.6 percent of the national total, while in Jiangsu they were down to 12.5 percent of the national total.

China's Imported Soybean Stocks (1,000MT)

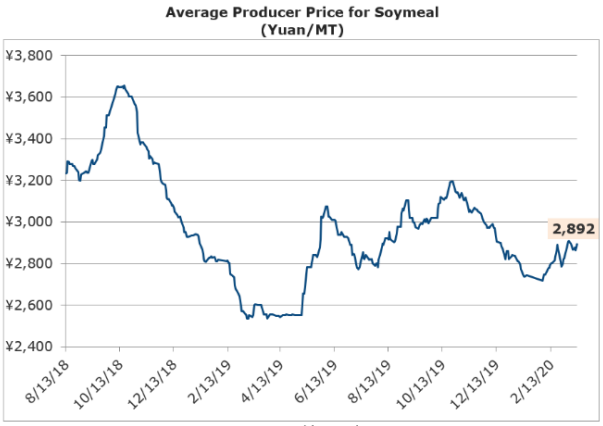
	Total	Other Ports	Shandong	Guangdong	Jiangsu
13 March 2020	6,207.9	2,565.7	1,955.8	908.4	778.1
Week-on-week	-167.7	-92.5	93.8	-99.5	-69.5
Month-on-month	-254.5	-115.7	41.2	-65.5	-114.5
Year-on-year	84.6	-37.3	409.2	-34.1	-253.2

Source : JCI



Imported Soybean Prices Fall by 4 Percent, Soyoil Craters

China's soyoil market continued its sharp downward trend, falling by RMB 411/MT ($58.71/MT) to RMB 5,240/MT ($748.57/MT). The average producer's price for soyoil has shed RMB 1,279/MT ($182.71/MT) since mid-February. Soymeal prices also reversed recent trends last week and gave back RMB 3/MT ($.43/MT) to finish at RMB 2,892/MT ($413.14/MT). The saving grace to offset these declines were significant decreases in the landed costs of imported U.S. and Brazilian soybeans, which ticked down by $13/MT and $14/MT to $378/MT and $369/MT, respectively. The average crush margin on U.S. soybeans sans penalty tariff fell by RMB 4/MT ($.57/MT) to RMB 8/MT ($1.14/MT). In contrast, the crush margin on Brazilian soybeans had a modest gain last week of RMB 4/MT ($0.57/MT) to RMB 82/MT ($11.71/MT).



Source : China Grain

China's Imported Soybean Crush Margin on U.S. Soybeans with 28% Tariff

	Imported Soybeans Cost & Freight	Exchange Rate	Soymeal Prices	Soybean Oil Prices	Crush Margin *(Tariff-28%)*	Crush Margin
	(USD/MT)	(USD/CNY)	(RMB/MT)	(RMB/MT)	(RMB/MT)	(USD/MT)
13 March 2020	378	7.00	2,892	5,240	-740	-105.6
Week-on-week	-13	0.07	-3	-411	14	3.0
Month-on-month	-11	0.01	112	-1,279	-45	-6.2
Year-on-year	-5	0.30	290	-403	36	10.2

Source: JCI

China's Imported Soybean Crush Margin on U.S. Soybeans without 25% Tariff

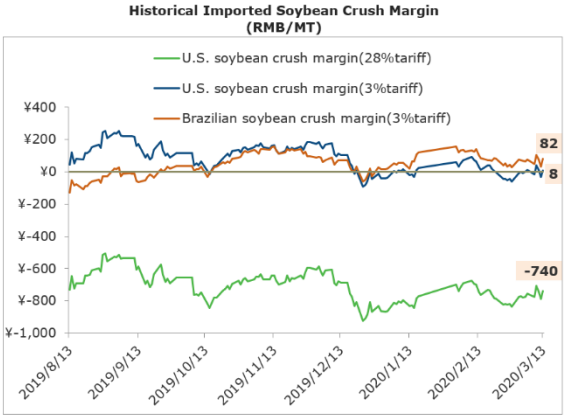
	Imported Soybeans Cost & Freight	Exchange Rate	Soymeal Prices	Soybean Oil Prices	Crush Margin *(Tariff-3%)*	Crush Margin
	(USD/MT)	(USD/CNY)	(RMB/MT)	(RMB/MT)	(RMB/MT)	(USD/MT)
13 March 2020	378	7.00	2,892	5,240	8	1.2
Week-on-week	-13	0.07	-3	-411	-4	-0.7
Month-on-month	-11	0.01	112	-1,279	-65	-9.4
Year-on-year	-5	0.30	290	-403	59	8.8

Source: JCI

China's Imported Soybean Crush Margin on Brazil Soybeans

	Imported Soybeans Cost & Freight	Exchange Rate	Soymeal Prices	Soybean Oil Prices	Crush Margin *(Tariff-3%)*	Crush Margin
	(USD/MT)	(USD/CNY)	(RMB/MT)	(RMB/MT)	(RMB/MT)	(USD/MT)
13 March 2020	369	7.00	2,892	5,240	82	11.6
Week-on-week	-14	0.07	-3	-411	4	0.5
Month-on-month	-14	0.01	112	-1,279	-41	-5.9
Year-on-year	-2	0.30	290	-403	39	5.3

Source: JCI



Source : JCI

Grains

Domestic Corn Prices are Mixed, Products Face More Pressure

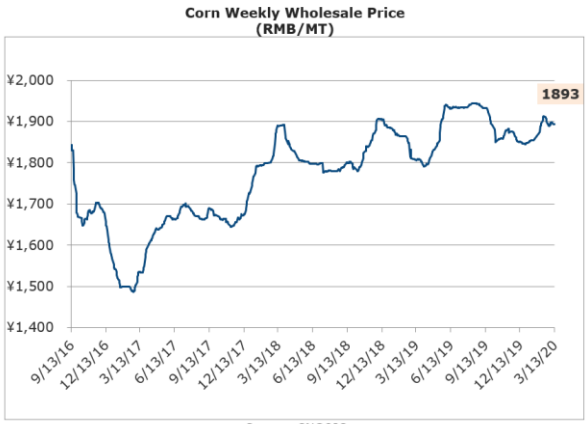
Corn prices in the northeast continued to see decent increases last week, while Shandong was the only province to see a decrease. In Heilongjiang and Jilin, the average corn prices improved by RMB 8/MT ($1.14/MT) and RMB 6/MT ($0.86/MT) to RMB 1,673/MT ($239/MT) and RMB 1,777/MT ($253.86/MT), respectively. In Shandong, the average price retreated by RMB 18/MT ($2.57/MT) to RMB 1,932/MT ($276/MT), which helped drive down the national average price by RMB 5/MT ($0.71/MT) to RMB 1,893/MT ($270.43/MT). With planting delays, corn auctions are likely to pick up pace well into the early part of summer. Imports will begin to rise as the current crop year stocks fall to 20 percent of what was harvested.

While corn prices remain fairly steady, the prices for corn byproducts have taken a real beating in recent weeks. The corn gluten meal prices in Shandong and Jilin fell by RMB 240/MT ($34.29/MT) and RMB 60/MT ($8.57/MT), respectively, to RMB 4,380/MT ($625.71/MT). Meanwhile, the average prices for ethanol in Shandong and Jilin shed RMB 100/MT ($14.29/MT) and RMB 150/ MT ($21.43/MT) last week to RMB 5,000/MT ($714.29/MT) and RMB 4,900/ MT ($700/MT), respectively.

China Corn Wholesale Price (RMB/MT)

	Nationwide	Heilongjiang	Jilin	Liaoning	Shandong	Guangdong
13 March 2020	1,893	1,673	1,777	1,843	1,932	2,000
Week-on-week	-5	8	6	0	-18	0
Month-on-month	-10	18	14	4	-30	-40
Year-on-year	87	124	146	116	31	130

Source: CNGOIC



Source: CNGOIC

China Cornstarch Processing Margin (RMB/MT)								
	Shandong				Jilin			
(RMB/MT)	Corn Price	Starch Price	Corn Gluten Meal Price	Margin	Corn Price	Starch Price	Corn Gluten Meal Price	Margin
13 March 2020	1,930	2,330	4,380	31	1,780	2,150	4,380	-38
Week-on-week	0	-20	-240	-51	0	0	-60	-13
Month-on-month	10	-50	-300	-122	60	0	-120	-113
Year-on-year	30	-100	960	19	170	-200	660	-319

Source: JCCE

China Corn Ethanol Processing Margin (RMB/MT)								
	Shandong				Jilin			
(RMB/MT)	Corn Price	Ethanol Price	DDGS Price	Margin	Corn Price	Ethanol Price	DDGS Price	Margin
13 March 2020	1,950	5,000	2,170	539	1,780	4,900	1,650	233
Week-on-week	-20	-100	0	-50	20	-150	30	-74
Month-on-month	-30	-700	0	-625	70	-350	50	-202
Year-on-year	50	0	120	20	180	150	100	-105

Source: JCCE

Mercosur Regional Analysis - 23 March 2020

By WPI Staff

Argentina Macroeconomics

The scenario in Argentina has changed in the last few days and will continue to do so in the coming days. The coronavirus is just starting in Argentina. The country is in quarantine until 31 March, but it looks like the quarantine will be extended an additional 15-20 days for sure. There are some exceptions to the quarantine rules, agricultural business being one of them. Harvesting crops, delivering goods (grain, cattle, fish, etc.), loading vessels and other such activities cannot stop.

Argentina's ports are operating normally, there were some strikes that prevented trucks from reaching ports, but that is over. The only reason exports might suffer or be delayed due to a lack of personnel is related to the issuing of shipping documents, but hopefully that situation will be resolved soon.

Corn

In the last week, the corn harvest has expanded into the core areas and so far, 14 percent of the area has been harvested. Activities were interrupted due to heavy rains but that is good news for the late planted corn that was starting to suffer a lack of soil moisture.

The FAS market has been very active this week. Argentina has a huge number of vessels waiting to load corn and more demand showing up daily, so exporters are very interested in buying corn. Moreover, farmers were harvesting at a good pace, encouraging them to sell. Argentina has already loaded 2.2 MMT of corn this month and the vessel line up is for another 1.8 MMT.

FAS price have been volatile along with CBOT futures, first dropping heavily and at the end of the week recovering a little bit. It gave some opportunities for exporters to book some margins if the old license rates (with a lower export tax) are used, but origination is more expensive than the past week.

On the FOB market, the lineup is very good, and exporters are comfortable with their programs for April and May shipment, but there is still a lot of demand around. It seems that lower flat prices plus cheaper freights are encouraging buyers to stockpile.

All these factors combined created a rally in FOB premiums for spot shipments (April and May). April shipments ended the week offered at 100K versus bid 75K, up sharply from the prior week where offers were 60K versus bids at 50K. For May shipment, despite some paper resellers at 80K, the market ended offered at 90K versus bid 72K, which is 20 cents above the past week. Corn affluent to South Ports remains scarce, and there were neither offers for completion nor full Panamax and it seems it will be like this at least until June/July shipment when new crop corn will appear.

It will be interesting to see how farming activities (harvesting, trucks delivery, port activity, etc.) keep moving during this quarantine and what effect it will have on the logistics and in the prices. Keep in mind that despite the announced quarantine until 31 March, it will surely be extended.

Wheat

The FAS market remains unchanged with small volume traded and only local millers present in the market. Argentina will start planting the new crop in a little over two months from now, and farmers will have a better idea of expected margins. That will help inform input purchases as well.

The Argentine government needs to signal that it will not intervene in the wheat market and adjust the export taxes, otherwise the wheat planted area will decrease significantly. FAS prices are interesting and production margins are positive, so this should encourage farmers to plant wheat. With the situation as it is presently, however, WPI does not expect the government to take action that would comfort the wheat market or lower taxes. The government is solely focused on the coronavirus issue and any clamoring from farmers will be ignored.

Soybeans

Market Overview

Last week was unique in world history with several countries setting up lockdowns and others implementing restrictive measures to stop the coronavirus. In the soybeans market, one would expect a slowdown as well, as it has been happening in all other areas of the economy. Nevertheless, the market did not react like that and, in fact, Chinese crushers were active buyers for all nearby positions. China crushed 1.3 MMT last week, which was almost 6 percent less than the previous one and the lowest since 2016. This made Chinese pork producers very nervous as they are scared of a possible shortage of soymeal.

The lockdown imposed in several countries (including Argentina and Brazil), bring the possibility of a slowdown on exports. Brazil's stevedores tried to stop in the port of Santos last week, but terminals said they could keep operating without stevedores. This was a warning for the workers union, which found itself in a weak position as they could lose all their activity. Inland truck flow to the ports is slowing down gradually, due in part to the fact that truckdrivers prefer to work closer to their homes. The risk of a tougher lockdown that may force them to stop working is increasing. Truckdrivers want to avoid being caught far from their homes in such a case.

Brazil

The nearby months are getting tight, as WPI has noted before. March loadings will probably be around 11 MMT, which would force the rolling of some 2 MMT to April. In fact, there is some good interest to roll vessels from March to April. March positions are sold out for the moment and nobody wants to risk selling a March vessel, considering that there will be a big volume rolled from March to April.

It is increasingly hard to get reasonable offers for April, but the market is heavily offered from May onwards. May traded at 150K CNF China on Friday and there were also trades for June onwards. Around 60 cargoes were traded last week from Brazilian ports, with China as the primary buyer, though Brazilian soybeans are competitive to many destinations.

The FOB market has been trading at 69K FH May and 74K LH May, which shows a big increase versus previous week. This corresponds to cheaper freight plus higher CNF basis in China, (compensating for the drop at the CBOT). Farmers sold pretty good volume last week due to the devaluation of the Brazilian real, which increased their income in reais. Nevertheless, farmers have sold already 65 percent of their crop, which is well above average values for this time of year. This means farmers will only keep selling if the price in reais improves in their favor. Brazilian beans are getting closer to U.S. beans (mainly PNW levels), although are still more competitive. China is suddenly showing that it needs more beans as the ASF crisis is over and will move to secure them.

U.S. Gulf versus Brazil FOB Soybean Offers for May Shipment

	FOB Offer	Freight	CNF	FOB Offer	Freight	CNF
	Cents/Bushel			$/MT		
USG	73.00	100.79	173.79	$ 343.75	$ 37.00	$ 380.75
Brazil	72.00	70.76	142.76	$ 343.39	$ 26.00	$ 369.39
Difference	1.00		31.03	$ 0.36		$ 11.36

Brazil has already harvested 70 percent of the crop. Production figures are estimated around 123-124 MMT between trading houses. There was good movement in the new crop soybean market last week as the cheap basis encouraged several Chinese crushers as well as trading houses to buy new crop beans. Present basis are historically low, and way cheaper than U.S. offers for those positions. March traded at 108H while April traded at 104K CNF China.

Argentina
Harvest is starting gradually with some delays due to the rains from last week. This week's weather forecast shows no rains for the coming two weeks, so harvest should advance at good pace.

The local market has limited farmer selling. Some commercials are just buying beans in the local futures market (ROFEX) at FOB replacement of about 70N. Farmer selling remains still around 20 percent.

Local crushing plants are working with poor margins (about $5/MT). Loading ports are still working normally despite the lock down but labor unions are trying to stop operations, requesting healthy guarantees to work, or more money (of course) to operate. So far, ports have rejected such a request (supported by the government) and employees were forced to resume works.

Nevertheless, the feeling is not good, and roadblocks to ports, or strikes may start at any moment. The government is definitely interested in maintaining operations, as this is one of the main incomes in the present moment.
The FOB market remains with sellers at 30N for May shipment and demand at 22N.

Uruguay
Harvest is about to begin, and the local and FOB markets are very quiet.

Paraguay
Farmers are still selling and have sold 40 percent of the crop. THE CIF Upriver market is very slow, and the shallow draft of the Paraguay river is creating logistics issues.

WPI POLICY ANALYSIS

Remaking a Food System

By Gary Blumenthal

The Common Agricultural Policy (CAP) was crafted in the late 1950s to respond to chronic food shortages in Europe following WWII. Spin forward 70 years and major concerns include obesity and agriculture's damage to the environment. As a food production tool, the CAP was too successful in the eyes of some but whether its next iteration under the Farm to Fork Strategy can retain food security while conquering new goals is unclear. There are reasonable questions about the new objectives.

For example, there is the goal of reducing the use of synthetic chemical pesticides. Integrated pest management can reduce the need for pesticides but general animosity against chemistry is more of a philosophical motivation than one based on actual risk. Moreover, some "natural" pesticides can be more harmful than some synthesized products.

The goal of increasing organic production will likely reduce output and may involve practices that are more intuitive than science based. Agriculture Commissioner Janusz Wojciechowski has lamented that "consumption" is the barrier to organic agriculture and complained that the market and retail level is to blame. It is often price that is to blame and forcing greater production that concurrently lowers price but not production costs may accentuate the farm income problem.

Attacking obesity may involve forcing retailers to stock specific products, making nutrition labels more prominent and marking the origin of food products might work, but policy initiatives elsewhere around the globe are not supportive. Unless Brussels becomes authoritarian, the first goal in human consumption is finding food that tastes good and addresses hunger. Secondarily, food is used for emotional and social purposes. Collectively, these are powerful forces contributing to obesity.

Liquid Fuels Relief Request

By Dave Juday

The Renewable Fuels Association yesterday requested "equitable" relief for the "liquid fuel industries" given the coronavirus and the Russian/Saudi crude oil price war.

In a statement, RFA noted:

> *While the policy response to turbulence in the energy markets has so far focused largely on supporting crude oil producers, we urge the Administration to recognize that biofuel and agricultural commodity markets are suffering as well. …we implore the Trump administration to take action that equitably supports all liquid fuel industries—including ethanol producers—during this time of unprecedented market uncertainty and unrest.*

We heard the comment today from a colleague that "now that gasoline is really cheap, with coronavirus we can't drive anywhere." That about sums up the outlook.

Top of the ethanol industry's wish list, or course, is fewer small refinery exemptions and for the Administration to not challenge the 10th District Federal Court ruling against EPA's process for granting SREs. Second is to add back 500 million gallons to the required volume obligations (RVO) after a 2017 court case that determined EPA had exceeded its waiver authority in 2016. That will definitely help stem the bleeding by presumably pushing up RINs prices, but cheap gas is not favorable to the larger issue of blending economics.

But those aren't the only legal actions pending; EPA announced yesterday that the American Fuel and Petrochemical Manufacturers (AFPM) has asked the U.S. Court of Appeals for the District of Columbia Circuit to review the 2020 RVO. The case was filed March 6th; the brief on the particulars of the complaint are not yet public. Note, that was also the date of the last OPEC-plus meeting.

Meanwhile, the April ethanol futures contract closed at $1.02/gallon today, dipping below $1.00/gallon during the day's trading, and down from yesterday's close of $1.06/gallon. Crude oil was down to $26.86/barrel after closing yesterday at $28.70/barrel. Crude was whipsawed by statements out of the Middle East today. On the one hand, pressure came from Saudi Arabia pledging to boost its crude exports to a record level, while on the other hand the April contract found temporary support from Iraq saying that it will push for an emergency meeting of the OPEC-plus coalition (including Russia) to discuss balancing the market. The next regular meeting is in early June if an emergency confab is not held.

After the OPEC-plus meeting, the U.S. Energy Information Administration (EIA) revised its outlook on OPEC production, forecasting an average of 29.1 million barrels per day (bpd) in Q2 and Q3 of 2020. That is 1.4 percent higher than the Q1 estimate of 28.7 million bpd. That is not a big boost, but commodities are priced on the margin and this represents an increase above the relatively stable 5-year average production, plus there are increasing supplies from non-OPEC member

In the March Short Term Energy Outlook (STEO), EIA is forecasting Brent crude oil to average $43/barrel in 2020, down from an average of $64/barrel in 2019. That breaks down to an average $37/barrel during the second quarter and an average of $43/barrel during the second half of the year.

Will There be a Tech Title in the Next Farm Bill?

By Dave Juday

The Senate Agriculture Committee is held a hearing this month on Agriculture Innovation and the Federal Biotechnology Regulatory Framework. But, the technology issues in agriculture reach far outside the traditional "biotech framework."

Indeed, traceability and transparency are the links in the so-called "farm to table" value chain and are expanding on a scale that is much broader and evolving much faster than ever before. This is the post-Round-Up-Ready environment; biotech has evolved from a production driven proposition. Ag and food tech are now entering a pull-through phase. There has been a lot of attention to using biotech for bio-fortification of crops for nutritional benefits, the same basic playbook as golden rice, but targeted not to address malnutrition but rather to meet upscale market demand. The regulatory issues have evolved too.

Consider the arguments over cell cultured meat – mainly who, USDA or FDA, gets to regulate.
Of course, biotechnology remains the foundation, but the issues of the future are integrating other technologies as links in the value chain, such as DNA tracking and blockchain. Last year at the USDA Outlook Forum blockchain was discussed as a tool to ensure the integrity of certified organic crops. That has only become more relevant as two massive, long-term fraud schemes in organic grain have been exposed.

Then there are issues from sustainability and carbon sequestration, to next generation super-precision farming prototypes of machinery with weed recognition and soil moisture sensing capabilities, and gene editing for livestock and poultry as a way to combat the threat of animal diseases such as African swine fever, foot and mouth disease and avian influenza. And, there is an increasing focus on the role of robotics in addressing farm labor shortages.

The whole ag tech sector is booming. According to *AgFunder*, last year agtech start-ups received

$17 billion in investment funding. Of course, many of the big players in ag, through their own venture arms (the fact that they exit underscores the significance of the growing tech space), contributed to that sum, but they are also developing things on their own. So that $17 billion is primarily new investment in the latest ideas and applications of technology.

Remember when the ag biotech sector was "crop sciences"? Now, with the growth in the overall agtech space, the traditional "crop sciences" is the so-called up-stream technology focused on farm production, and there is a whole other sub-sector developing down-stream which is more food and final product related, and lots of technology in-between looking to link the two, like DNA and blockchain as mentioned above.

The bottom line is that every so often, when there is a big trend and new focus in ag and commodity production, the policymaking starts to catch up. Consider the farm bill, … a conservation title was added in 1985, an energy title in 2002, a specialty crop title which covered organic horticulture was added in 2008, a miscellaneous title in 2014 was added to cover the contemporaneous issues of the day like socially disadvantaged farmers, technical assistance to veterans entering farming, and so forth.

We saw the last farm bill add language about defining biostimulants as the technology and scientific applications in what used to be called "soil amendments" turned into a big emerging ag tech industry while the regulatory structure under which they were being commercialized was murky at best. The language established a definition of biostimulants and directed USDA and EPA to identify "potential regulatory and legislative reforms to ensure the expeditious and appropriate review, approval, uniform national labeling, and availability of plant biostimulant products to agricultural producers."

And that wasn't the only ag tech related provision of the 2018 farm bill. It also included a new pilot program under the existing Environmental Quality Incentives Program (EQIP) based on the National Corn Growers Association's Soil Health Partnership that will help establish protocols for measuring soil health and carbon sequestration. It also gave a nod to big data by including the Thune-Klobuchar Agricultural Data Act, which directs USDA's agencies to aggregate and integrate the array of farm data points that it already collects, from conservation practices to crop yields, to build a more sophisticated understanding of the connection between crop inputs, soil health and farm productivity and ultimately profitability.

So, the question is: are we at a critical mass of new high-tech ag that will – or should – lead the next farm bill to have a tech title?


WORLD PERSPECTIVES
AT THE NEXUS OF POLICY & MARKETS