

The Agriculture Letter

Insight and Analysis for Agribusiness Leaders

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Dear Client:

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Impact of surging fertilizer prices...
Topic of two reports from Texas A&M Univ.

FERTILIZER

Linkage. An increase/decrease in crop returns of ten coincides with an increase/decrease in input expenditures. But when crop returns decline, fertilizer expenditures do not tend to decline as much. While input suppliers take advantage of higher returns to increase their returns, many other reasons likely exist.

Factors of current market supply of fertilizer, according to an industry official:

- 1 Global demand for fertilizer, largely driven by crop plantings and prices;
2. Weather events disrupting domestic prod.;
3. Covid-19 related deferral of facility maintenance now being undertaken;
4. International actions... Belarus and China;
5. Transportation costs; and
6. Supply and cost of natural gas.

U.S. nitrogen prices are up substantially... and are at the highest levels since 2008.

Is concentration in industry to blame? The report says the nitrogen price surge “could be due to the exercise of market power by nitrogen product manufacturers,” adding “it does raise serious questions and certainly helps explain the frustration producers are feeling.”

Fertilizer is a major cost for corn producers with nitrogen accounting for more than 50% of the cost. Corn has the highest fertilizer cost at \$117 per acre, followed by rice (\$97 per acre) and peanuts and cotton (\$68 per acre). The other five crops all spend less than \$45 per acre, with soybeans the lowest (\$31 per acre) due to little or no nitrogen fertilizer applied.

Fertilizer costs for corn (36%) account for the highest percentage of operating costs across the nine commodities, followed by wheat (35%), oats (32%), grain sorghum (30%) and barley (27%). This means that over one-third of corn and wheat operating costs are directly attributed to highly volatile fertilizer prices.

Impacts: An average increase in nitrogen costs of \$52.07 per acre across the 46 farms growing corn in representative farms monitored. This would translate into roughly \$0.32/bushel that corn farmers would need from the market or government to offset the higher nitrogen price, according to one of the Texas A&M reports.

Upshot: Based on current spot market prices, it appears as though fertilizer prices will increase in excess of 80% for the 2022 planting season... relative to 2021. “Given the farm safety net is not designed to address rapidly rising costs of production, there are growing concerns in the countryside about the need for additional assistance.”

Four-Firm Concentration Ratios for Ag Sector

Concentration of market power is evident across many ag sectors.

Category	Year	Concentration
Livestock Slaughter, Total	2015	68%
Steers/Heifers	2015	85%
Cows & Bulls	2015	57%
Sheep/Lambs	2015	57%
Hogs	2015	66%
Nitrogen Fert.*	2019	75%
Property Seed	2018	60%
Corn Seed^	2018	85%

* = CF Industries, Nutrien, Koch, and Yara-USA

^ = DowDupont, ChemChina, Bayer and BASF accounted for over 60% of proprietary seed sales around the globe. For corn, largest four controlled 85% of global sales, with DowDupont and Bayer controlling 78% of corn seed market.

Source: USDA-ERS and USDA-GIPSA; Choices Magazine

TRUCKING

Some info on the U.S. truck driver shortage... via *No Labels*:

The U.S. currently faces a record shortage of 80,000 truckers, according to the American Truckers Association. The group's chief economist says that number could more than double within the current decade.

Certification hurdle. Four million job postings for trucking positions in 2021 required a Commercial Driver's License (CDL) at a minimum... many also sought past professional experience. This certification need was one reason why carriers posted nine job listings for every one actual hire. CDL classes can cost \$5,000 or more. In 2020, the state of California paid \$11.7 million to truck driving schools in the state to help train drivers... about five times what the state allocated in 2019.

Four out of five U.S. truckers are over age 45... nearly one in four are over age 55. Younger workers are not entering the trucking industry at a rate high enough to replace the aging driver workforce... just 20% of truckers are under age 45. While younger workers are entering the logistics sector, most are gravitating towards warehousing, not transport. Age minimum of 21 for drivers also prevents many interested young people from entering the field.

Turnover for truck drivers in fleets with more than \$30 million of annual revenue was 92% at the end of 2020. This is due in part to drivers making about 40% less in real dollars now than they did 50 years ago, even though productivity has doubled.

Ground freight totals will rise by 50% by 2050 to 28.7 billion tons, the Transportation Department projected. Trucks transport more than two-thirds of this freight. Drivers are needed to keep these goods flowing to consumers.

SHIPPING

Shipping woes also continue. Some shippers have been stung paying about \$15,000 to move a 40-foot container from China to the U.S. West Coast, 10 times more than pre-pandemic.

Transport costs are set to keep rising this year as the higher spot market rates get locked into annual freight contracts, which are currently under negotiation.

Update on ports of Los Angeles and Long Beach... the U.S. gateway for Asian imports. Effective number of container ships waiting... above 100 recently... is at a record high. LA/Long Beach accounted for roughly 22% of shipping capacity waiting to berth globally as of Jan. 4, according to Kuehne + Nagel, a Swiss logistics group.

Equipment is another hurdle. The U.S. has 4% fewer chassis in circulation than in 2018, according to consultancy ACT Research, yet demand has increased. Makers of the steel frames and trailers will be unable to pump out enough to make a difference before the second half of 2022, say experts.

LABOR

Now comes negotiations with workers at LA/Long Beach whose contracts expire in July. The previous 2015 pact was reached after intervention by the Obama administration following nine months of talks. Most observers say talks with the dockworkers, which typically center on pay and automation, will likely result in unavoidable disruption.

Impacts: A United Nations report predicts a 1.5% increase in global inflation due to shipping... even more for lower value items such as furniture and high-tech goods containing thousands of components that crisscross the oceans.

Upshot: Still another indication inflation will stay around longer than most think.

TAXES

A look at how 2022 impacts some key tax items...

Lifetime estate and gift tax exemption for 2022 jumps to \$12,060,000.

Special estate tax valuation of real estate also increases for 2022. Up to \$1,230,000 of farm or business real estate can receive discount valuation, letting estates value the realty at its current use instead of fair market value.

More estate tax liability qualifies for an installment payment tax break. If one or more closely held businesses make up greater than 35% of a 2022 estate, as much as \$656,000 of tax can be deferred, and IRS will charge only 2% interest.

Annual gift tax exclusion rises to \$16,000 per donee in 2022.

USDA barrage of January crop reports were relatively mild for corn, soybeans.

That's not usually the case, as traders typically are surprised by some of the data. Final 2021 production... 15.115 bil. bu. for corn — the second highest ever amid a record yield of 177.0 bu. per acre... a record 4.435 bil. bu. for soybeans on the second highest soybean yield ever of 51.4 bushels. USDA's cotton crop estimate (not its final) at 17.624 mil. bales was cut 660,000 bales from November.

Dec. 1 grain stocks... Corn stocks at 11.647 bil. bu. rose 3.1% from year-ago but were only 45 mil. bu. higher than expected. Traders have widely missed quarterly corn stocks for years. Soybean stocks at 3.149 bil. bu. increased 6.9% from year-ago and were 20 mil. bu. higher than expected. Wheat stocks at 1.390 bil. bu. fell 18.4% from last year and were 31 mil. bu. below expectations.

Winter wheat seedings... U.S. winter wheat acres increased 749,000 acres from last year to 34.397 mil. ac. and were 142,000 acres higher than expected. HRW... 23.8 mil. acres, up 306,000 acres from 2021; SRW... 7.07 mil. acres, up 422,000 acres; white winter wheat... 3.56 mil. acres, up 54,000 acres.

Corn: Demand for remaining 2021 crop and acreage expectations for 2022 will be the focus for markets, along with conditions in South America given adverse weather there. The closer we get to USDA's Outlook Forum in late February, the more focus will be on potential acreage. Plus, demand for corn to make ethanol will also be key.

Soybeans: South American weather is a focus, but prospects for 2022 U.S. acreage will rise. Traders will monitor price relationships, but agronomic decisions can often override price-based thinking. Crush demand is also a key for the sector.

Wheat: U.S. condition ratings declined during December, which is not surprising given the lack of precip in key Plains HRW wheat locations. Global supply questions remain with key exporters. But getting shortfalls in global wheat exporting countries to translate into additional business for U.S. wheat has been elusive.

Rice: Demand for the 2021 crop is a focal point, with some export business showing up to provide support. But there needs to be even more robust demand emerging to keep support under futures. U.S. exports remain solid within the region. Domestic mill demand has been strong, but that reflects a downturn in mill yield for the 2021 crop.

Cotton: Demand for U.S. cotton has remained strong despite lofty prices. Attention remains on China and whether it undertakes any additional policy changes to help the textile sector with sanctions against cotton... and other products... from Xinjiang to keep limiting prospects there.

Hogs/pork: Hog producer profitability has potential to improve in early 2022 and should be in the green by month-end. Still, the sector continues to see slaughter levels struggle due to weather and absenteeism at packing facilities. This is pushing more automation into processor plans.

Cattle/beef: The combination of holidays and absenteeism at packing plants crimped slaughter action as 2022 got underway. And that has trimmed weekly beef output, which is contributing to higher prices at stores for consumers. Fed carcass weights continue to decline from fall peaks, but are still high from a historical perspective.

Poultry/broilers: Feed costs continue to run slightly higher than year-ago marks on a ready-to-cook basis for broilers, and chick head counts in the past six weeks have still been slightly lower than year ago. While the broiler layer flock started December up nearly 2% from that point in 2020, the hatchability issue continues to temper supplies.

Dairy: The continued easing of milk production has tempered butter and cheese production, providing support for prices. While the November Dairy Products update from USDA was bullish, it still doesn't justify current CME spot prices.

Transportation: Upper Mississippi River water levels remain low and that is potentially a factor ahead for remaining barge movements. Low water is mostly from dwindling downstream flows as winter sets in. But on the Ohio River, water levels remain elevated, which is also affecting shipping patterns.

USMCA
DAIRY

U.S. wins USMCA dispute with Canada over dairy. Canada did not live up to terms of the U.S.-Mexico-Canada Agreement (USMCA) by giving its dairy industry preferential treatment relative to tariff-rate quotas (TRQs) for dairy products into the Canadian market.

Impacts: Verdict could allow American dairy farmers to increase sales to Canada by more than \$200 million annually. Dairy exports to Canada have climbed by about \$56 million, compared with when the USMCA took effect. From January through October 2021, U.S. exports of dairy products to Canada totaled \$478 million, making it the third largest export market for U.S. dairy products.

The ruling: USTR said Canada's unfair trading action undermined the value of the dairy TRQs for the U.S. dairy industry. The ruling said Canada setting aside a percentage of each TRQ specifically for Canadian processors was counter to the country's USMCA commitments and that the restriction applies to all processors. Canada oddly spun the deal as keeping its supply management program in place. But Canadian officials said that they would make sure to come into compliance.

Canada has 45 days... until Feb. 3... to comply with the decision or face retaliation by the U.S. However, USTR officials said rather than retaliation an agreement is preferred.

Decision shows USMCA working... and is faster than WTO. The decision verified concerns expressed by the U.S. dairy and shows the dispute settlement provisions put in place under USMCA are not open-ended and are bringing decisions in a matter of months, not years like at the WTO. And there is a relatively tight compliance deadline if no appeal is registered.

BATTERIES

U.S. has fallen far behind in batteries. China accounts for 79% of the production of lithium-ion cells, vs. 7% in the U.S. and 7% in Europe, according to Wood Mackenzie.

China produces about 80% of the chemicals used in lithium-ion batteries, according to Benchmark Mineral Intelligence, which tracks the battery supply chain. The Biden administration and private investors are trying to reverse that. They are funding battery startups, developing lithium mines in the U.S. and aiming to cut the cost of batteries for the electric grid by 90% within the decade.

Electric vehicle sales are on the upswing, rising 88% year-over-year in 2021, but they still only account for about 3.2% of the total U.S. car market, according to research firm Motor Intelligence.

Tesla holds a solid lead over rival car companies. Its global deliveries rose 87% last year to about 986,000. In the U.S. alone, Tesla sold about 352,500 vehicles in 2021, or about 72% of all electric vehicles purchased, Motor Intelligence estimates. By contrast, Ford sold around 27,000 electric vehicles in 2021 and GM sold around 25,000 last year. For both companies, that accounted for less than 2% of their total U.S. sales.

POLITICS

Republicans are happy two current senators will go for re-election in November. Senate Minority Whip John Thune, the No. 2 Republican leader, will run for re-election after months of speculation about his political future. The 61-year-old South Dakotan, currently serving his third term, is widely viewed as a potential successor to Senate Minority Leader Mitch McConnell (R-Ky.), who will turn 80 in February.

Sen. Ron Johnson (R-Wis.) announced he will seek a third term in the U.S. Senate. The race will be one of the most closely contested this cycle. Republican allies had been publicly pushing for Johnson to seek another term, as they viewed him as their best chance to hold the seat.

Best regards,

The Ag Letter Editors
THE AGRICULTURE LETTER EDITORS

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