



March 2021

Agronomy Outlook: A Time to Plant, a Time to Prosper



Kenneth Scott Zuckerberg

Lead Economist,
Grain and Farm Supply



Inside...

- Introduction 1
- Fundamentals 2
- Ag Retail Customer Analysis 3
- Conclusion 5
- References 5

Key Points:

- U.S. farmers are in a sound financial position heading into spring 2021 given the cyclical turn in grain prices and robust government support, both of which have driven a rise in net farm income.
- This, combined with other strong fundamental factors, generally positions U.S. farm supply cooperatives for a profitable spring agronomy season. Those factors include a meaningful expansion in corn, soybean, and wheat planted acres in response to global imbalances between supply and demand, and rising fertilizer prices which are positive for retailer margins.
- Our favorable outlook is further supported by a review of proprietary internal data (obtained on a lagged basis) that points to normal build of agronomic inventories (seed, fertilizer, and crop protection chemicals) and higher farmer prepayments on those inventories.
- Improving profits for cooperative agronomy departments should help cushion the negative carry in grain markets due to the backwardation (inversion) in corn, soybean and futures prices.
- Key risk factors for the planting season include the recent cold and wet weather, which could delay planting, and some logistical bottlenecks creating input shortages in certain parts of the country.

Introduction

Barring additional weather shocks, spring 2021 is set up to be a strong agronomy season. Farm supply cooperatives and independent retailers stand to benefit from strong input demand, rising commodity and fertilizer prices, and expanding soybean, corn, and wheat acreage. The positive momentum follows a very good fall agronomy season. More financially secure farmers, flush with cash from government payments and sales of grain into a rising market, spent more money on fall fertilizer applications. Growers also put excess cash flow into prepaying spring inputs (fertilizer, crop protection chemicals, and seed) to minimize tax liabilities.

EXHIBIT 1: Summary Scorecard of Short-Term Growth and Profitability Drivers

Factor	Variables	Trend	Risks
Grain Prices	Stocks-to-use ratios, forward supply vs. demand, weather, production from competing regions	Corn and soybean prices have risen over past 6 months and remain strong, generally; wheat prices have risen by a lesser amount and are mixed	Longer-term futures are lower than near-term contracts suggesting prices will correct next year; we are closely monitoring global weather, Brazilian and Argentinian crop production and China demand
Farmer Income	Prior year crop receipts, government support, bank credit lines, alternative sources of liquidity	Strong finish to 2020, 2021 lower but still very good	Very high farmer debt levels; government support will moderate
U.S. Planting Intentions	Stocks-to-use, domestic vs. export demand, weather	Corn, soybean and wheat acres expected to expand by at least 10 million	Large snow fall and cold winter weather could result in some regional planting delays during mid-to-late March
Logistics/ Transportation	Crop input inventory levels, transportation availability and costs, labor	Logistical bottlenecks have increased due to truck driver shortages and increased demand for rail cars	Retailers may experience product shortages as replenishment of input inventories (namely fertilizer and agrochemicals) are delayed

Source: CoBank

Our positive outlook is based on channel checks with CoBank relationship managers and customers in six offices: Fargo, North Dakota; Louisville, Kentucky; Minneapolis, Minnesota; Omaha, Nebraska; St. Louis, Missouri; and Wichita, Kansas. While trends vary across the regions and among individual states, the overall operating environment for the agronomy departments of cooperatives is very positive based on key variables, trends and risks we are monitoring heading into spring planting season (*Exhibit 1*).

Fundamentals**Grain Prices and Farmer Income**

Following a downturn in the U.S. row crop prices that began after 2013, a cyclical turn is underway that puts farm supply cooperatives and independent ag retailers in an enviable position for the spring agronomy season. Grain prices have risen in response to tight ending stocks and continued strong demand from both export markets led by China and domestic food, feed and fuel processors: +66% for corn, +60% for soybeans and +19% for wheat since August 1, 2020.¹

U.S. net farm income (aggregated for crop, dairy and livestock production) for 2020 grew by \$38 billion to \$121 billion, driven by sizeable U.S. government farm program payments of \$46 billion. And although government support is projected to drop by 45% in 2021 to \$25 billion, and consolidated farm income will be lower, cash crop receipts are projected to rise by nearly 6% in 2021 which supports increased spending on inputs during 2021.²

Partly offsetting the positives, farm debt and financial leverage ratios continue to increase – debt-to-equity is projected to reach 16.1% in 2021 vs. 15.8% in 2020 and 12.7% in 2012 – a situation that could become problematic should floating interest rate debt begin rising in anticipation of higher inflation in the future.³

U.S. Planting Intentions

High grain prices, coupled with favorable supply-demand dynamics, will drive higher planted acreage and consequently, higher crop input usage during the spring 2021 planting season. In aggregate, USDA expects slightly more than 10 million additional planted acres in 2021 due principally to prevent plant acres coming back into production.



USDA is currently forecasting increases of at least 7 million more acres of soybeans, 2 million more acres of corn and 1 million more of wheat (*Exhibit 2*), with an update on planting intentions due March 31, 2021 in the “Prospective Plantings” report.

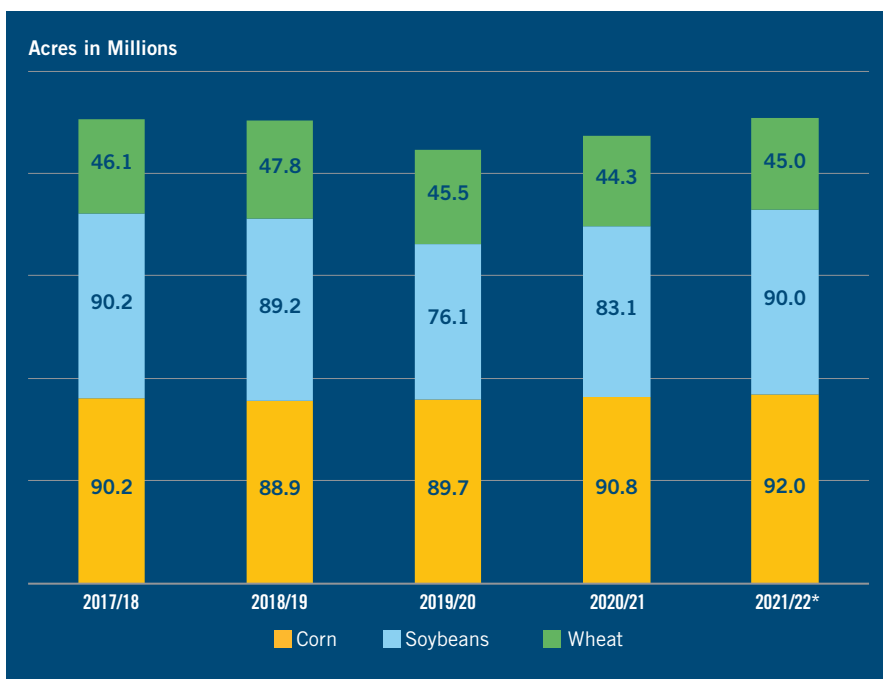
Fertilizer Prices

Given higher acreage forecasts, we expect farmers to spend more money on traditional fertilization products, specifically the principal NPK macronutrients (i.e., nitrogen, potassium and phosphorous) during the spring growing season. This demand follows a strong post-harvest fall application season (October to December 2020) in contrast to 2019 which had early and extreme winter weather. The increase in fertilizer demand has generally tracked the rise in grain prices, while the Green Markets benchmark index (*Exhibit 3*) has risen by more than 90% since its trough in May 2020 and is now at the highest level since March 2014.⁴

Ag Retail Customer Analysis

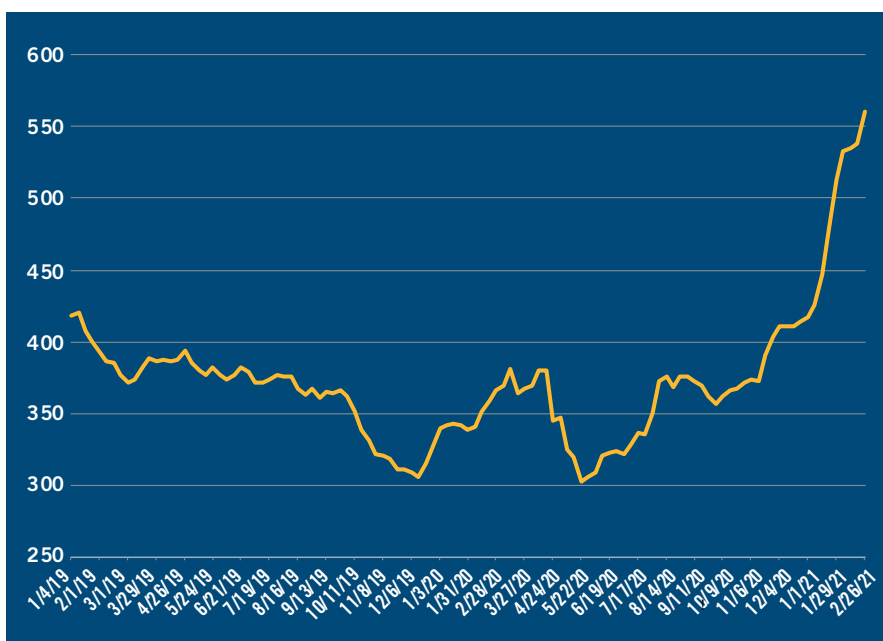
As part of CoBank’s collateral monitoring efforts, CoBank maintains a proprietary database of the hedging and business flow activities of approximately 200 grain and farm supply cooperative customers. Following our industry research and channel checks, we studied this database to better gauge how farm supply cooperatives are financially and operationally positioned heading into the 2021 growing season.

EXHIBIT 2: U.S. Planted Acreage Expectations



Source: USDA Initial Acreage Projections for 2021/22 February 19, 2021

EXHIBIT 3: Green Markets North America Fertilizer Price Index



Source: Green Markets Fertilizer Pricing.com as of February 26, 2021



EXHIBIT 4: Agronomy Inventories Owned by CoBank Farm Supply Customers

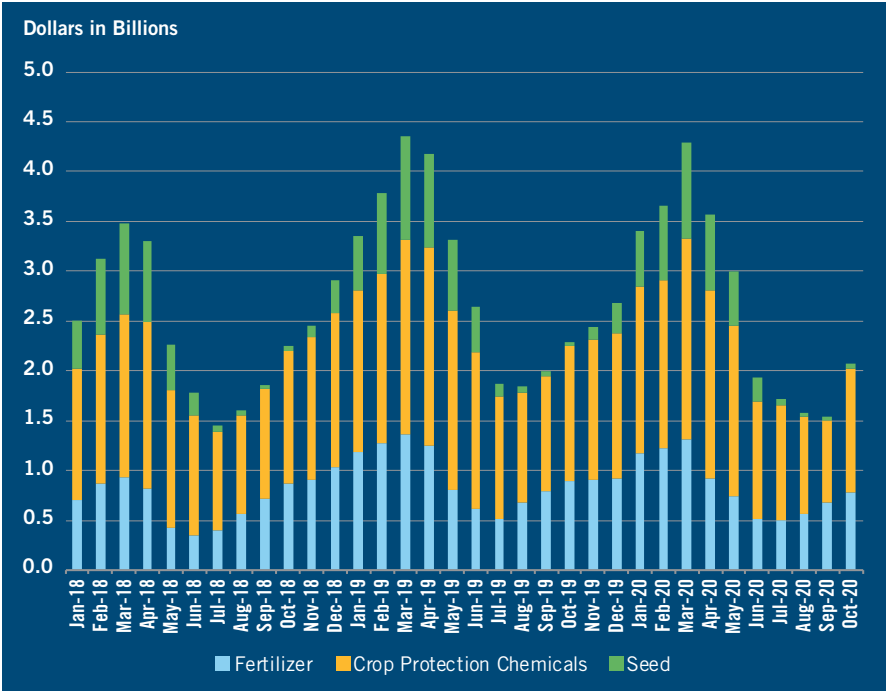
To ensure anonymity, we aggregated the available information from CoBank’s regional banking centers. (Note that information is provided on a lagged basis.) Following is a summary of our findings for two important variables: agronomic inventories and inventory prepayments for those inventories.

Agronomy Inventories

Seed, fertilizer, and crop protection chemical inventories held by CoBank’s farm supply cooperative customers have remained generally consistent. During 2020, peak levels occurred again in March while inventories bottomed in September, compared to July and August in the prior two years (*Exhibit 4*). Inventory levels began building in October 2020, driven by fertilizer and chemicals ahead of what turned out to be an active post-harvest fall application season. While more current month data is not yet available, we believe that inventory levels have continued to build and remain mostly sufficient for the expected increase in corn, soybean and spring wheat acreage this spring. We will continue monitoring input supply chains given some recent transportation bottlenecks in trucking and rail that are delaying replenishments of input inventories at the local co-op level.

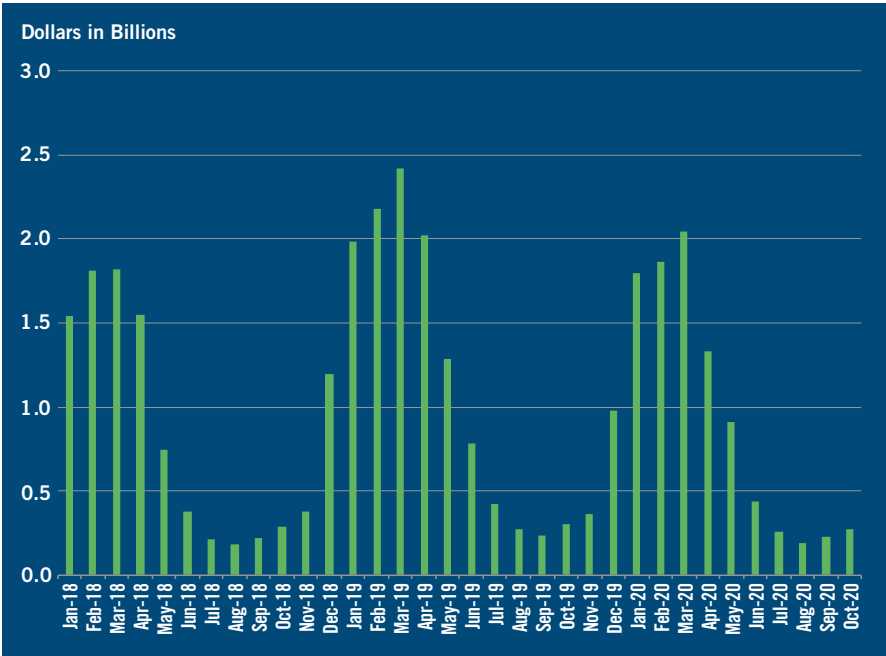
Inventory Prepayment

Farmers’ input prepayments to farm supply cooperatives also show very consistent year-over-year trends for agronomic inventories (*Exhibit 5*). While not apparent in the chart due to the aforementioned lag in data, prepayments began ramping up and finished 2020



Source: CoBank

EXHIBIT 5: Inventory Prepayments to CoBank Farm Supply Customers



Source: CoBank

on a higher-than-average level for several CoBank cooperative customers. This occurred due to the combination of substantial government payments to growers and their desire to minimize tax liabilities by pre-purchasing crop inputs ahead of the spring 2021 planting season. This situation was confirmed by internal relationship managers who conducted year-end credit line reviews amidst a flurry of extra seasonal borrowing activity.

Conclusion

After two strong agronomy seasons (spring and fall 2020), farm supply cooperatives and independent ag retailers begin the spring 2021 season with an opportunity to capture ever more revenues and expand profit margins amidst favorable industry fundamentals. Those include: a turn in grain and fertilizer prices, strong input demand due to a meaningful 10+ million expected increase in planted acreage, a financially-sound farmer customer, and continued low borrowing rates which allow farmers and agribusiness to adequately fund higher debt levels. Our sector thesis is supported by a detailed review of CoBank's proprietary customer borrower database, focusing on inventory levels held by farm supply

cooperatives and farm customer prepayments on those seed, fertilizer, and crop protection chemical inventories. Weather, as always remains a risk factor, however as of this writing we see "blue skies" heading into the spring 2021 planting season commencing in mid-to-late March. Increased profitability for cooperative agronomy departments should serve to cushion the negative carry in grain markets stemming from the backwardation (inversion) in corn, soybean and futures prices. ■

References

- ¹ BarChart.com based on each commodity's March 2021 futures contract price, August 1, 2020 to March 5, 2021.
- ² USDA/ERS Farm Income and Wealth Statistics as of February 5, 2021.
- ³ USDA February 5, 2021
- ⁴ The Green Markets Weekly North America Fertilizer Price Index is constructed using the fertilizer benchmark prices of U.S. Gulf Coast Urea, U.S. Cornbelt Potash and NOLA Barge DAP. The index is value weighted based on the annual global demand of each nutrient. Source: Green Markets, FertilizerPricing.com © Bloomberg L.P.

**CoBank's Knowledge Exchange Division welcomes readers' comments and suggestions.
Please send them to KEDRESEARCH@cobank.com.**

Disclaimer: *The information provided in this report is not intended to be investment, tax, or legal advice and should not be relied upon by recipients for such purposes. The information contained in this report has been compiled from what CoBank regards as reliable sources. However, CoBank does not make any representation or warranty regarding the content, and disclaims any responsibility for the information, materials, third-party opinions, and data included in this report. In no event will CoBank be liable for any decision made or actions taken by any person or persons relying on the information contained in this report.*