Fertilizer Prices Trend Upward in Late 2021 …and Into 2022?

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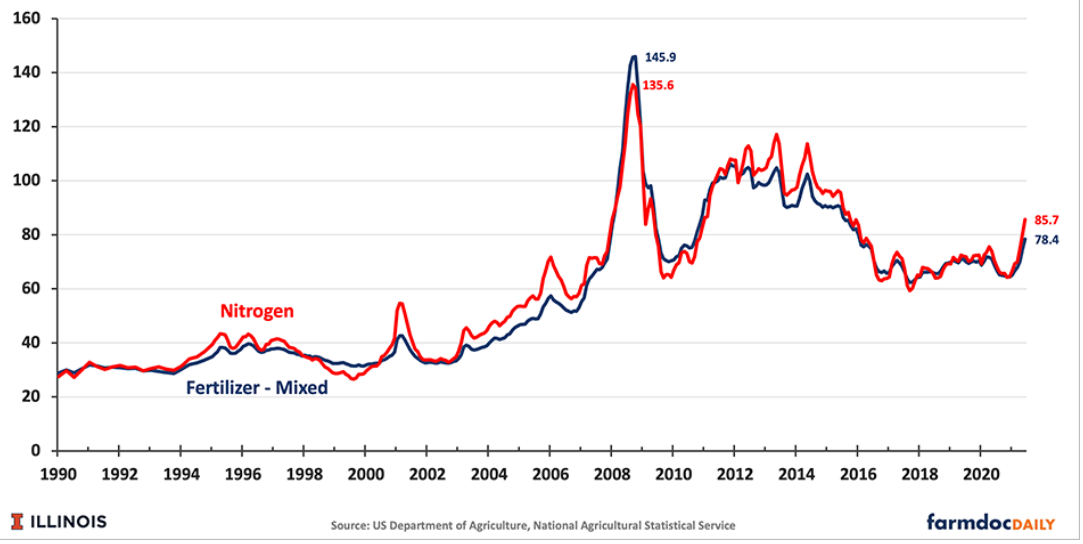
Retail fertilizer prices have been on the increase since earlier this year with some materials increasing by more than 70% since September 2020. Projected fertilizer costs for 2022 are for near record-high levels.

Figure 1. USDA Fertilizer Index for Prices Paid on Mixed Fertilizers and Nitrogen Fertilizers from Jan 1990 to Jun 2021 (2011 = 100)

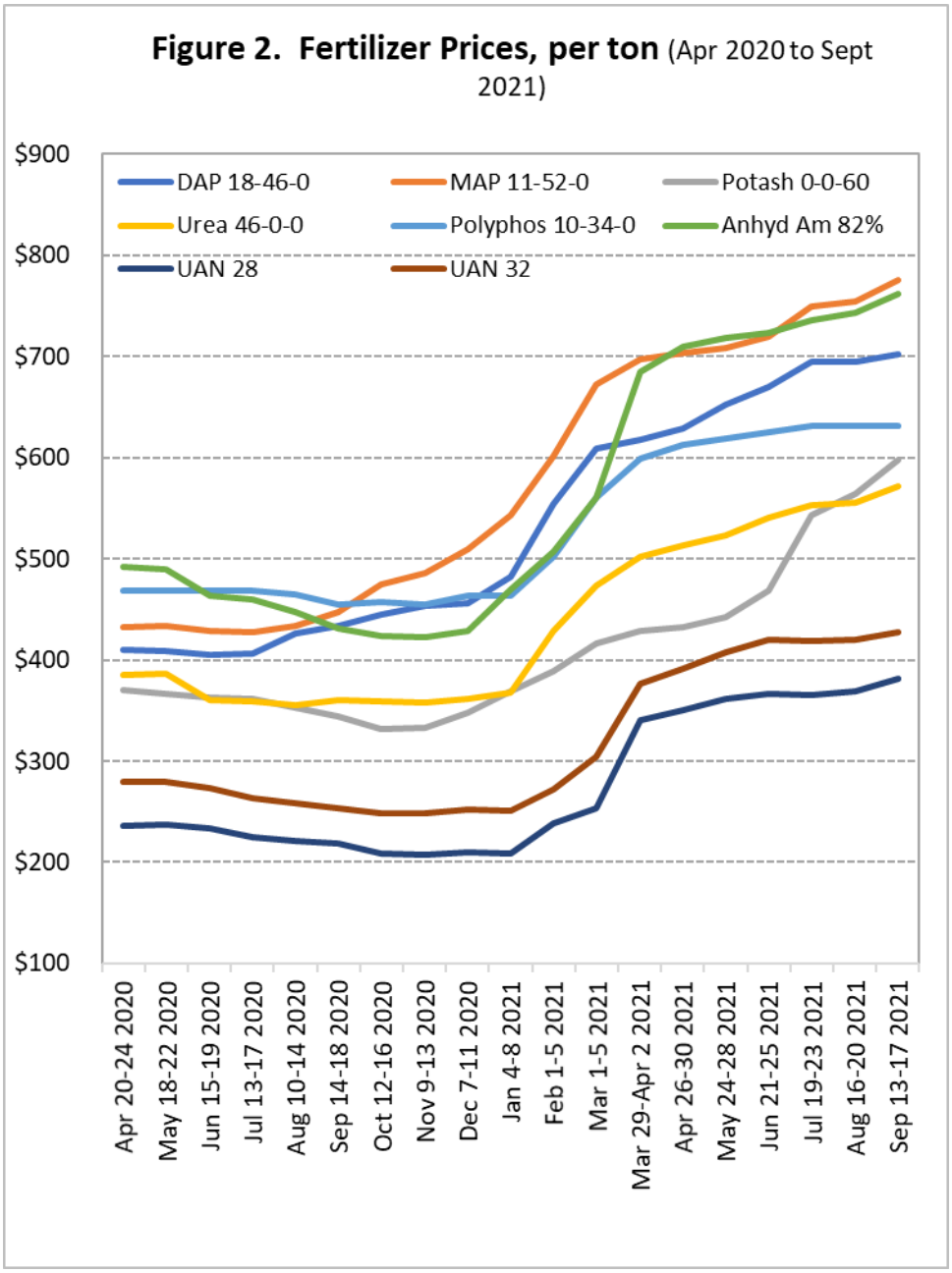


Fertilizer prices have always been somewhat volatile, shifting with energy prices and crises around the world, both natural and manmade. Recently, fertilizer prices hit all-time highs in 2008 after a sharp rise beginning in 2006. Fertilizer prices returned to lower levels in 2009, partly due to the 2008 financial crisis, but rose again into 2013 and 2014. We are seeing an increase now that began in early 2021. Trends in mixed and nitrogen fertilizers are shown in Figure 1, from an August 2021 article on farmdocDAILY, a weekly farm economics publication from the University of Illinois. Figure 1 uses indexed fertilizer data published by the USDA.

Recent trends are shown in more detail in Figure 2, using data published in recent Progressive Farmer articles depicting 8 weekly fertilizer prices tracked by DTN from April 2020 through September 2021. All 8 prices began to rise in early 2021 and most continue to rise this week. Since January 2021, urea has risen 55%, from $368 to $572. A per-ton price of $572 for urea is equivalent to $0.55 per lb of N. UAN28 and UAN32 have both risen even more dramatically. UAN28 is up by 82% since January 2021 and UAN32 is up 71%. Their unit prices currently stand at $0.68 and $0.67, respectively. Local and Northeast prices may well vary slightly from these figures; they are often higher, but overall trends are similar. Potash, MAP and DAP prices are also up this year. Potash is up 62% from January to $598 per ton or $0.498 per lb of K_2O. MAP and DAP are up 43% and 46%, to $776 and $702 per ton or $0.746 and $0.763 per lb of P_2O_5. For a corn crop grown on a soil management group 2,3 or 4 soil with medium fertility and no sod or manure history, about $125-130 in fertilizer inputs would be required at today's prices. Across the board, prices today are about 58% higher than fertilizers purchased last spring. Prices are expected to continue upward through Spring 2022 to near record highs, according to those Illinois economists.

These higher fertilizer prices make manure resources and crop rotation a lot more valuable and worth managing as efficiently as possible. The biggest cost in the fertilizer budget is N. Farms with accurate,

up-to-date soil samples and sufficient manure storage to start the spring with full pits and maximum inventories will be able to take maximum advantage of manure N and maximum fertilizer savings. Fall and winter manure application is much less efficient as most N is lost to the environment. Those same soil management group 2, 3 and 4 soils mentioned in the previous paragraph but with N credits from manure and first year sod would need about $70 worth of fertilizers at today's prices and will be more expensive by spring. Accurate analysis and application of manure and optimal crop rotation become much more valuable as fertilizer prices rise. The Illinois researchers mentioned above are expecting well-above average fertilizer costs for 2022, resulting in crop budgets well above those for the 2009-to-2020 time frame.



Additional Resources:

Schnitkey, G., N. Paulson, C. Zulauf and K. Swanson. "2021 Fertilizer Price Increases in Perspective, with Implications for 2022 Costs." *farmdoc daily* (11):114, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, August 3, 2021.

Quinn, R. Sept. 2021. DTN Retail Fertilizer Trends - DAP Fertilizer Tops $700 Per Ton for First Time in a Decade. DTN / Progressive Farmer. https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/09/22/dap-fertilizer-tops-700-per-ton-time

Thomas-Murphy, J, et al. 2021. Cornell Guide for Integrated Field Crop Management. Cornell University.

For more information about field crop and soil management, contact your local Cornell Cooperative Extension office or NNY Cornell University Cooperative Extension Regional Field Crops and Soils Specialists, Mike Hunter and Kitty O'Neil.

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