

Agricultural Finance Outlook

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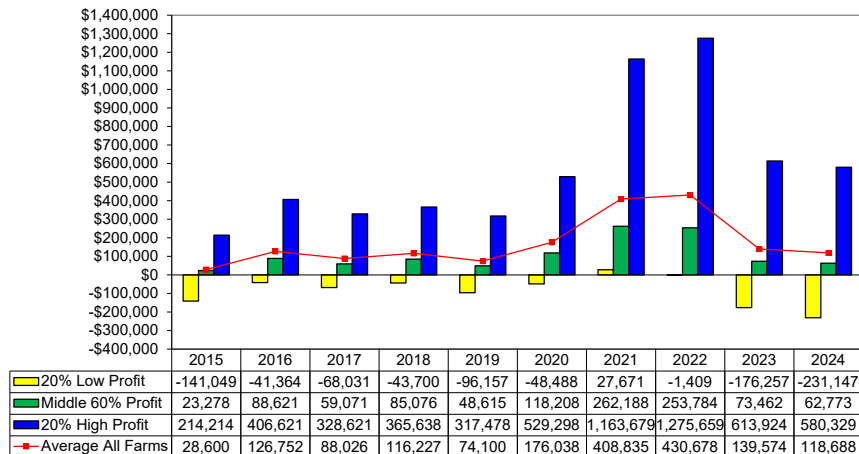
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North Dakota Year in Review 2024



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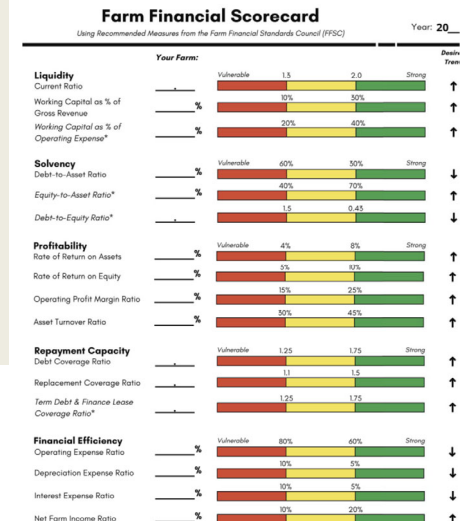
Net Farm Income (Accrual) Per Farm
N.D. Farm Business Management Education Program



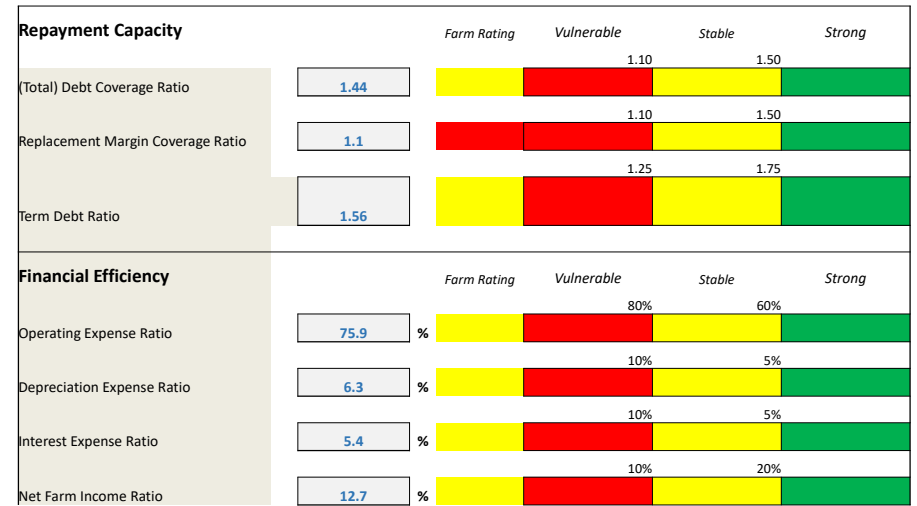
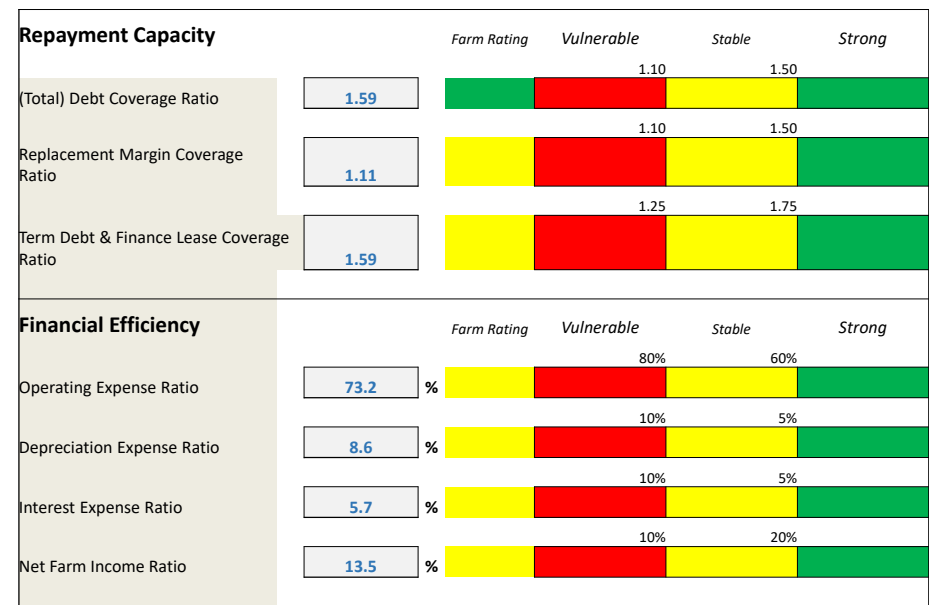
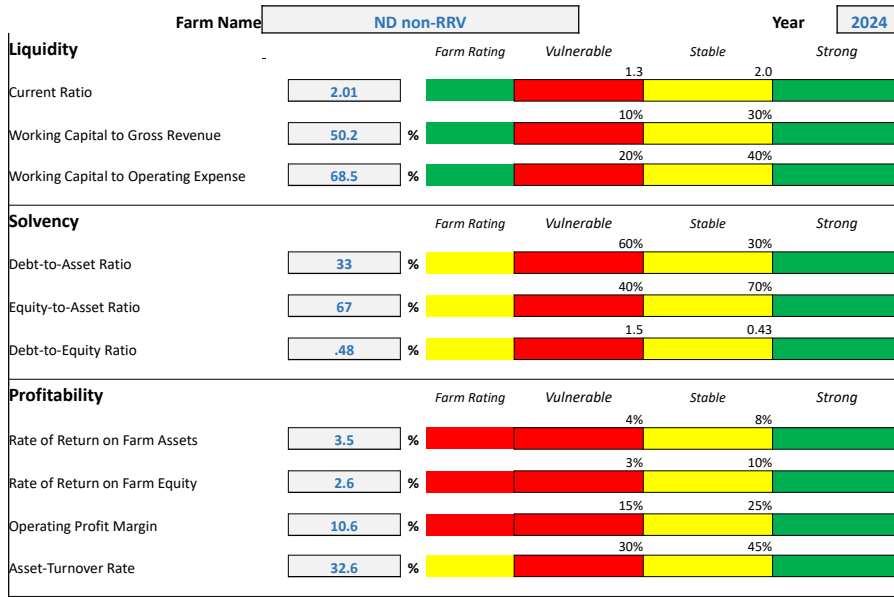
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Benchmarking

- Initial benchmarking may be done using the established FFSC accounting guidelines to determine if the ratio is acceptable
- However, the FFSC Farm Finance Scorecard is very general and may not apply as well to every region, enterprise, or farm type
- It may be necessary to adjust the ratio standards to meet the need of the client
 - Sugar beets
 - Cow/calf vs. crops
 - Dairy or other animal confinement



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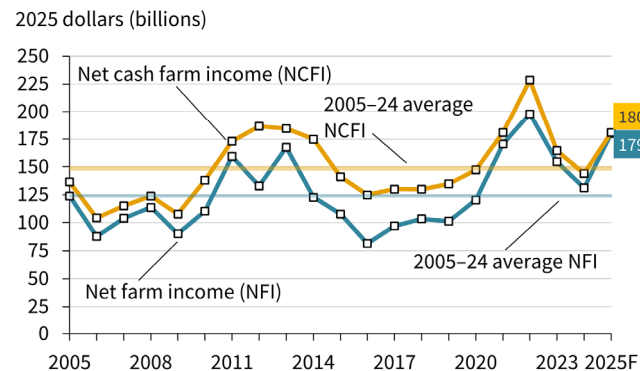
Valley vs. Non-Valley Financial Scorecard 2024

| | RR Valley | Non Valley |
|--------------------------------------|-----------|------------|
| Current Ratio | 1.96 | 2.01 |
| Working Capital to Gross Revenue | 41.6% | 50.2% |
| Working Capital to Operating Expense | 54.8% | 68.5% |
| Debt-to-Asset Ratio | 42% | 33% |
| Equity-to-Asset Ratio | 58% | 67% |
| Debt-to-Equity Ratio | 0.71 | 0.48 |
| Rate of Return on Farm Assets | 4.1% | 3.5% |
| Rate of Return on Farm Equity | 3.7% | 2.6% |
| Operating Profit Margin | 11.6% | 10.6% |
| Asset-Turnover Rate | 35.7 | 32.6 |
| (Total) Debt Coverage Ratio | 1.44 | 1.59 |
| Replacement Margin Coverage Ratio | 1.11 | 1.1 |
| Term Debt | 1.56 | 1.59 |
| Operating Expense Ratio | 75.9% | 73.2% |
| Depreciation Expense Ratio | 6.3% | 8.6% |
| Interest Expense Ratio | 5.4% | 5.7% |
| Net Farm Income Ratio | 12.7% | 13.5% |

Expectations for 2025?



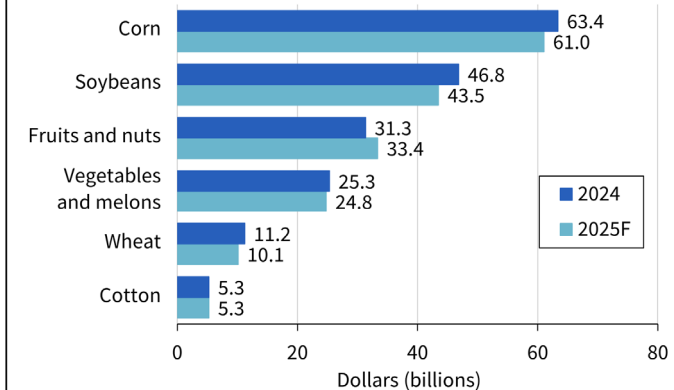
U.S. net farm income and net cash farm income, inflation adjusted, 2005–25F



Note: F = forecast. Values are adjusted for inflation using the U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product Price Index (BEA API series code: A191RG) rebased to 2025 by USDA, Economic Research Service.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

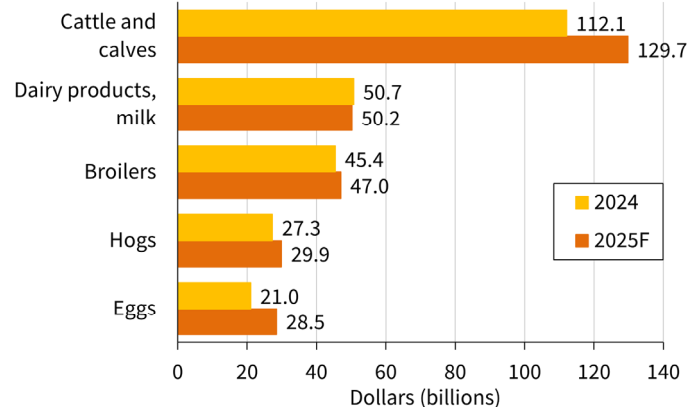
U.S. cash receipts for selected crops, 2024–25F



Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

U.S. cash receipts for selected animals/products, 2024–25F

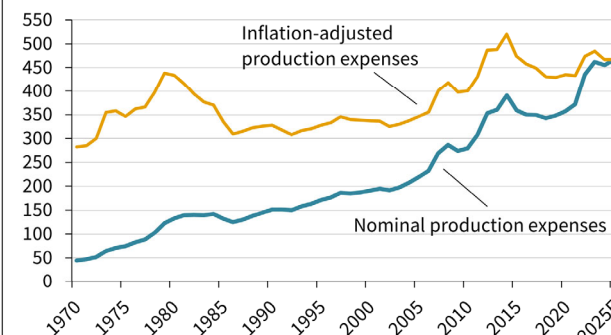


Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

Nominal and inflation-adjusted U.S. farm production expenses, 1970–25F

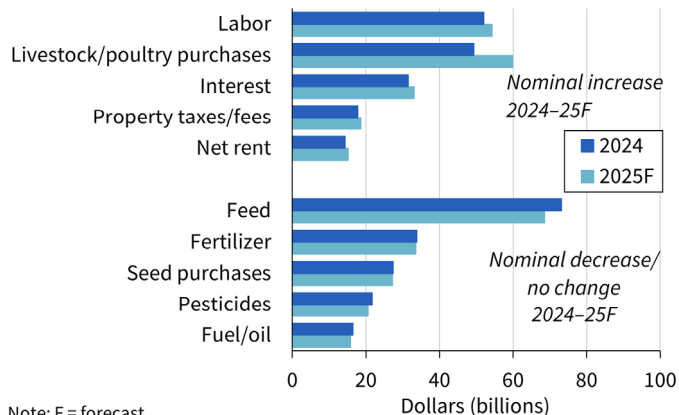
Dollars (billions)



Note: F = forecast. Values are adjusted for inflation using the U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product Price Index (BEA API series code: A191RG) rebased to 2025 by USDA, Economic Research Service.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

Selected U.S. farm production expenses, 2024–25F

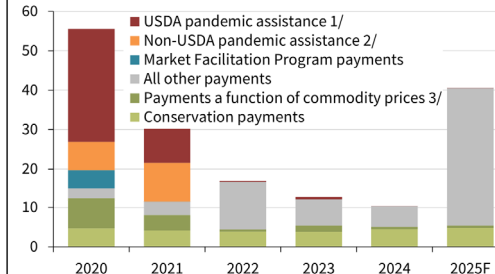


Note: F = forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

Direct Government payments to U.S. farm producers, 2020–25F

2025 dollars (billions)



Note: F = forecast. Values are adjusted for inflation using the U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product Price Index (BEA API series code: A191RG) rebased to 2025 by USDA, Economic Research Service.

1/ Includes payments from the Coronavirus Food Assistance Program and other USDA pandemic assistance programs for producers.

2/ Includes forgiven loans from the Paycheck Protection Program.

3/ Includes Price Loss Coverage, Agriculture Risk Coverage, loan deficiency payments (excluding grazeout payments), marketing loan gains, and dairy payments.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of September 3, 2025.

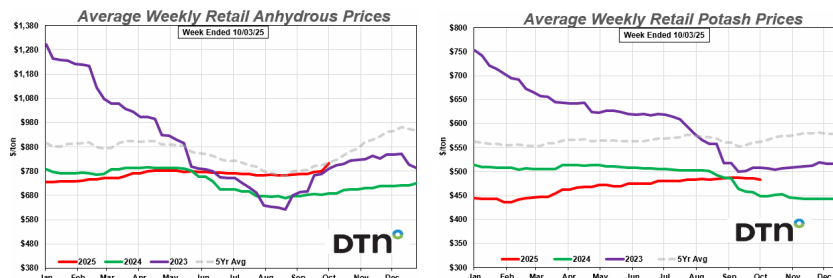
Fertilizer Prices Higer Heading Into Fall

- For some crops, fertilizer is a large considerable share of overall production expenses
 - Corn 20 – 25%
 - Soybeans 15 – 25%
 - Wheat 20 – 25%
 - Sunflowers 15 – 25%
 - Cotton 15 – 20%
 - Rice 18 – 25%
 - Canola 23 – 33%
 - Alfalfa 15 – 20%

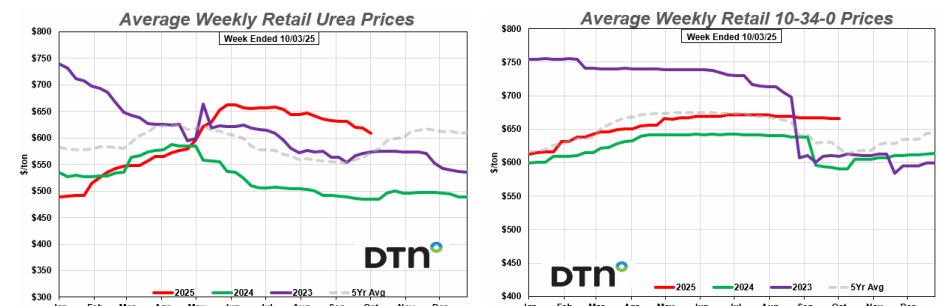
Tariffs and Conflicts Impacting Fertilizer Prices

- Tariffs on imports as well as conflict in the middle east have forced nitrogen prices higher
- Natural gas prices as well as global demand also pushing the price of N higher
 - More producers shifting to UREA as UAN supplies fall
- China has limited their Urea exports significantly in 2025
- Phosphate tariffs put in place prior to President Trump's election on Morrocco and Russia have cased high MAP and DAP prices to persist.
 - Currently a 14.21% tariff on Moroccan phosphates
 - Currently an 18.21% tariff on Russian Phosphates
- China has severely cut phosphate exports to record lows to manage domestic supplies
 - 950,000 Tons first quarter 2022
 - 111,000 Tons first quarter 2025

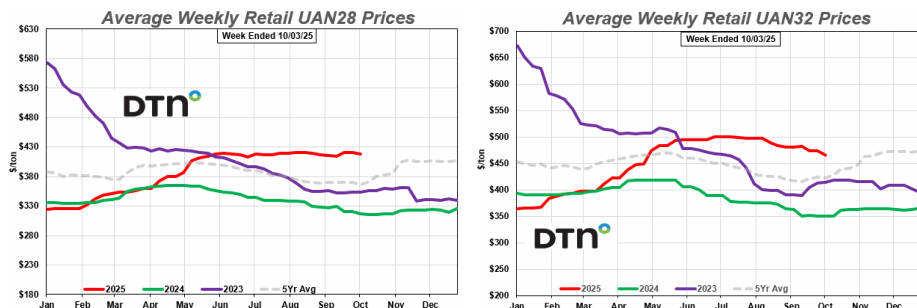
DTN Average Weekly Fertilizer Prices



DTN Average Weekly Fertilizer Prices

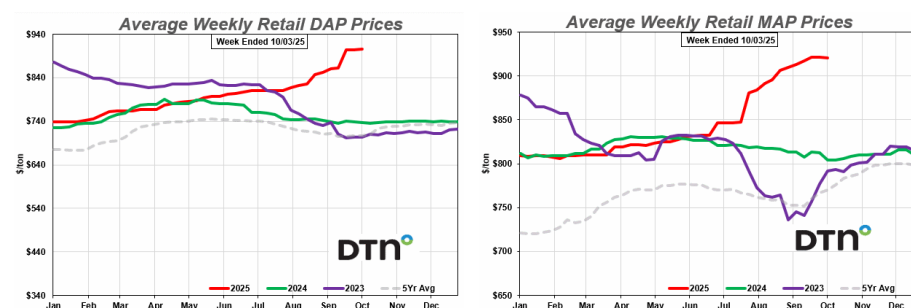


DTN Average Weekly Fertilizer Prices



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DTN Average Weekly Fertilizer Prices



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The FINBIN Data Set

Mn State College & University South 39867 farms
Mn State College & University North 12575 farms
ND Farm and Ranch Business Management 11589 farms
Mn State College & University Red River Valley 3509 farms
Southwest Minnesota Farm Business Management Association 3043 farms
Nebraska Farm Business Inc 3041 farms
Missouri Farm Business Management Analysis 2394 farms
Michigan State University Extension 2338 farms
Wisconsin Technical College System 2086 farms
South Dakota Center for Farm/Ranch Management 1271 farms
The Ohio State University Extension 957 farms
Utah Farm/Ranch Business Management 703 farms
MN Other 701 farms
Western Illinois Farm Business Farm Management Association 398 farms
Other Contributors 350 farms
Penn State Extension 218 farms
South Carolina Farm Management Association 76 farms
New England Direct Marketing Benchmark Project 52 farms

FINBIN (2025). Center for Farm Financial Management: University of Minnesota.
Retrieved from
<http://finbin.umn.edu> (originally created August 6 2025).



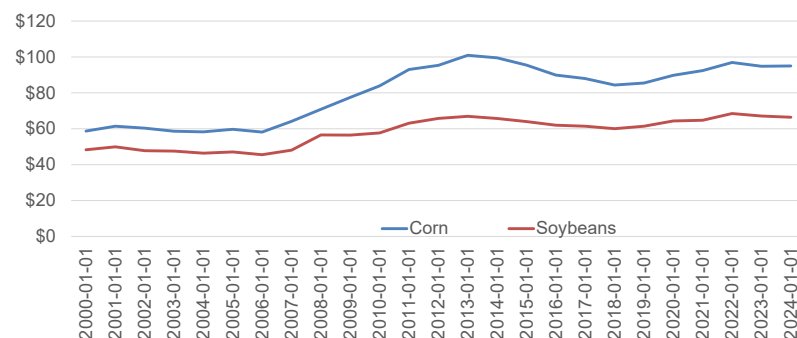
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Land Prices, Machinery & Rents Discussion

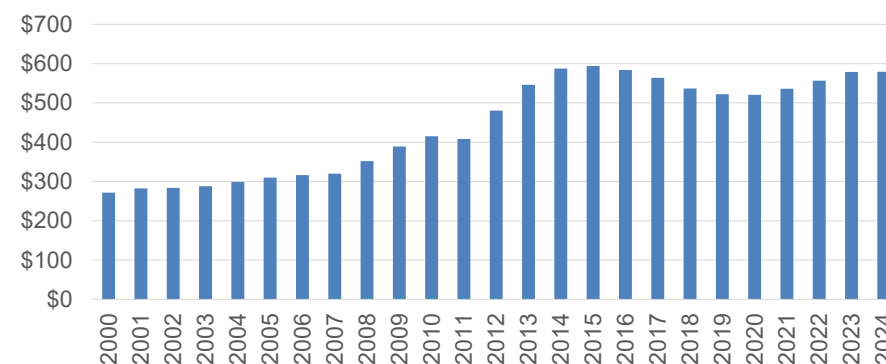


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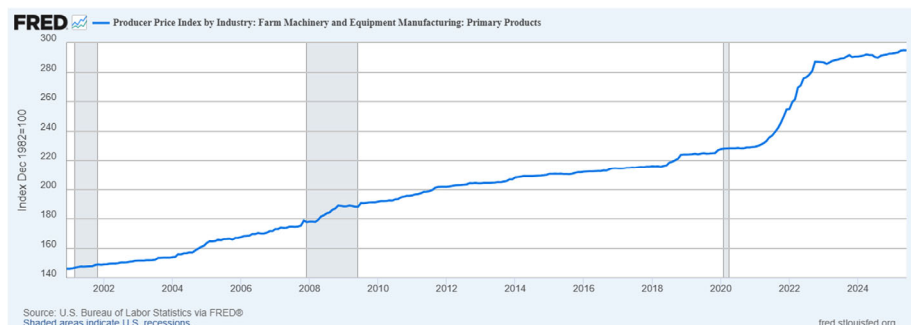
Inflation Adjusted (2009 Dollars) Machinery Cost per Acre For Corn and Soybeans, excluding Fuel and Lube: FINBIN Data



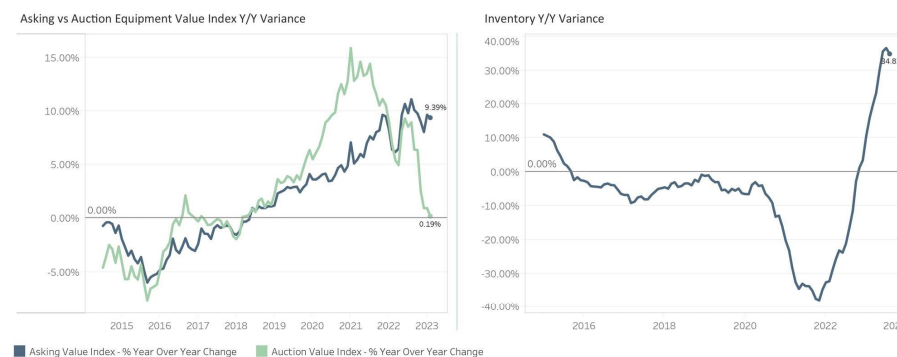
Machinery Investment Per Crop Acre, Inflation Adjusted 2009 Dollars. FINBIN Data Set



PPI For Farm Machinery



Sandhills Equipment Value Index : US Used Farm Equipment Market Tractors - 100 HP and Greater and Combines



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- Used farm equipment inventory levels were up 0.66% M/M and 34.83% YOY in August and are trending up. Sandhills has observed seasonal inventory decreases in the used combine category.
- Asking values remain elevated and are greater than they were a year ago, up 0.69% M/M and 9.39% YOY after consecutive months of increases.
- Auction value decreases have been noted among used combines and high-horsepower tractors (300 HP and greater) in past months, but even with recent decreases, auction values are on par with last year. Auction values were up 0.19% M/M and 0.19% YOY and are trending sideways.

Sandhills Equipment Value Index : US Used Tractor Market Tractors 300 HP or Greater

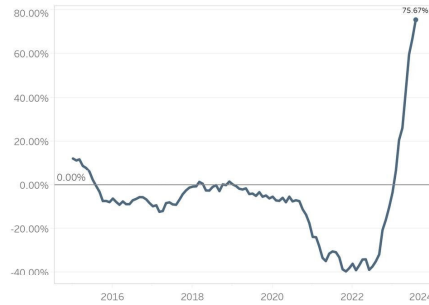
Asking vs Auction Equipment Value Index Y/Y Variance



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Inventory Y/Y Variance

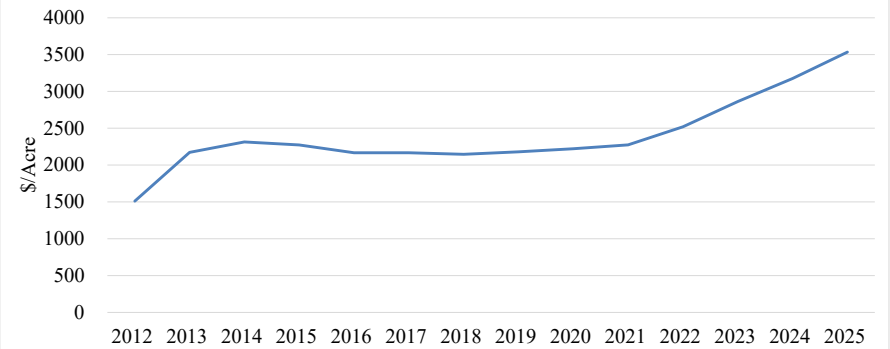


- Continuing several months of increases, inventory levels of used high-horsepower tractors were up 8.13% M/M and 75.67% YOY in August, a noteworthy acceleration led in part by 2022 model year tractors.
- Asking values are trending upward, up 0.93% M/M and 10.19% YOY in August after months of increases, while auction values are trending downward.
- Auction values were up just 0.41% M/M and 0.08% YOY and are trending down. The spread between asking and auction values expanded in August.

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North Dakota Cropland Values up 46% Since 2021, Up 10.55% in 2025

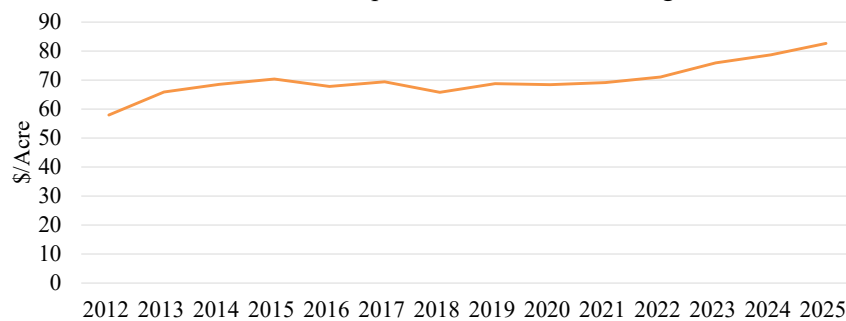
North Dakota Land Values - State Average Cropland Values



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ND Cropland Rents Up 19.7% Since 2021, up 4.25% in 2025

North Dakota Crop Cash Rents- State Average

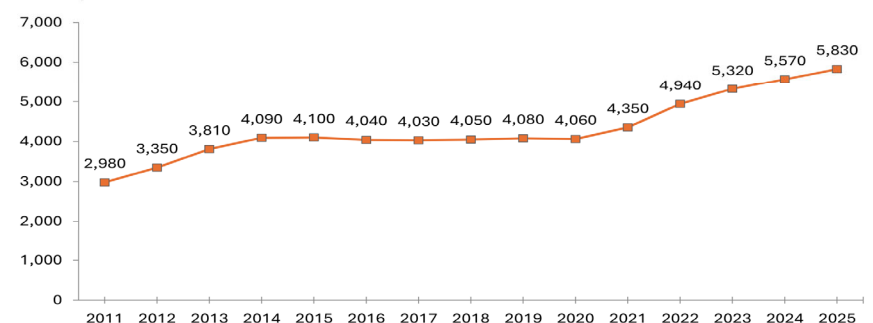


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USDA NASS National Cropland Prices

Average Cropland Value – United States: 2011-2025

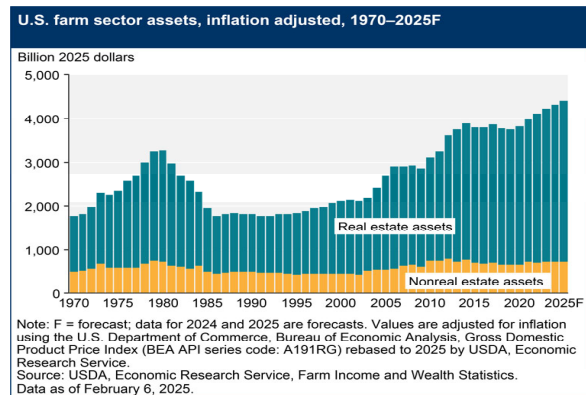
Dollars per acre



USDA - NASS
August 1, 2025

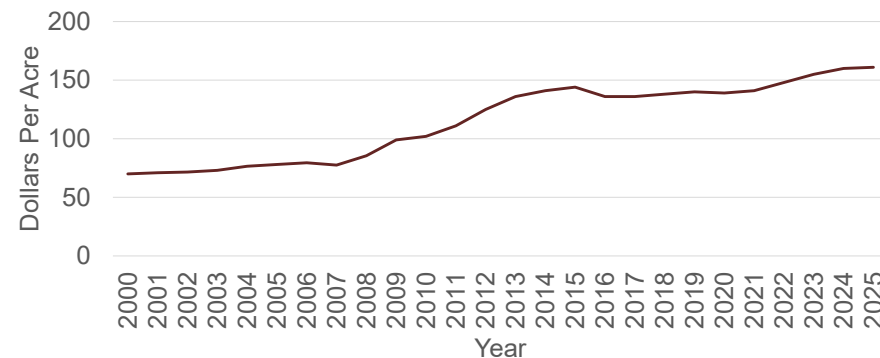
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USDA Inflation Adjusted Farm Assets



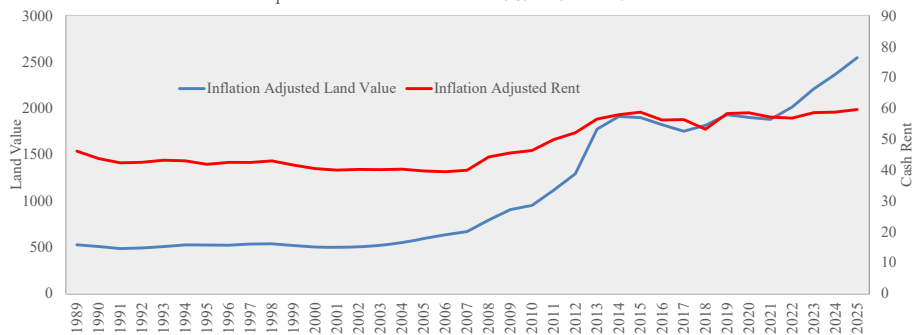
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U.S. National Average Cropland Cash Rental Rates

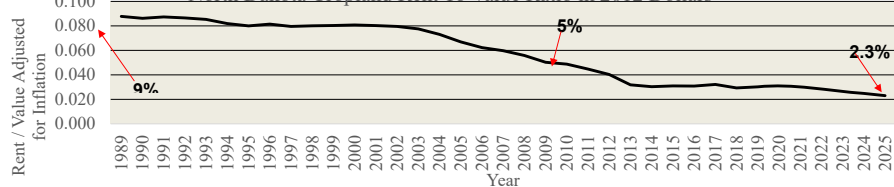


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ND Cropland Values and Cash Rents 1989 - 2024 in 2012 Dollars

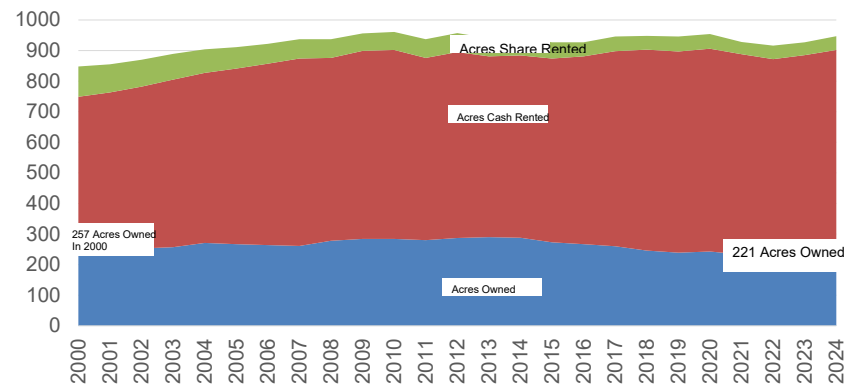


North Dakota Cropland Rent To Value Ratio in 2012 Dollars



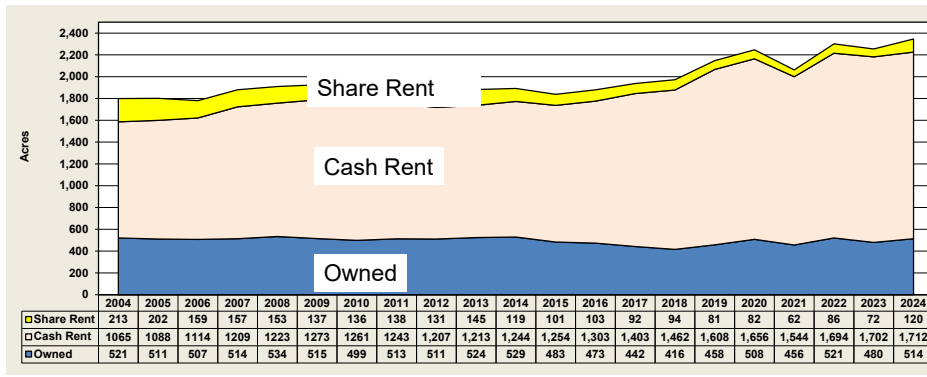
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FINBIN Crop Acres Owned Vs. Rented

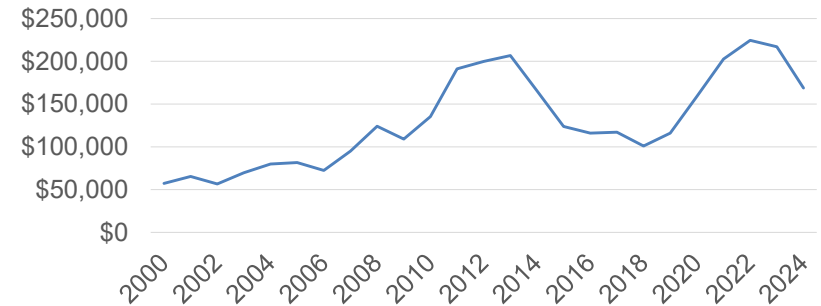


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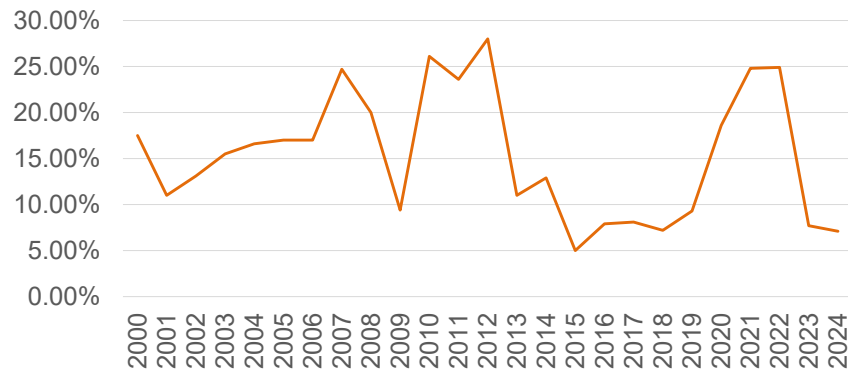
Crop Land in Farms Across ND 2024



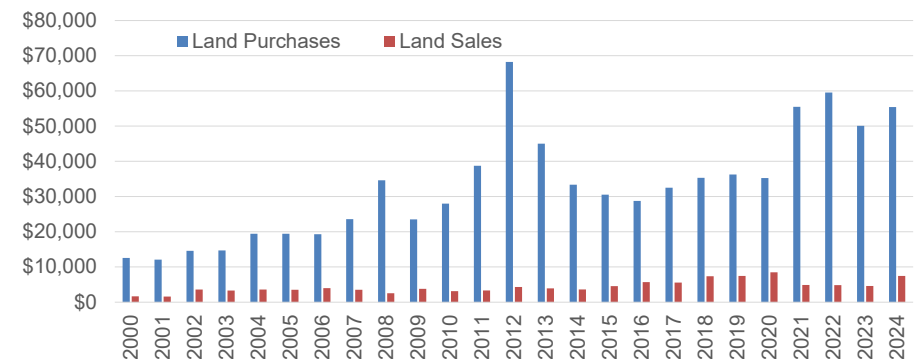
FINBIN Data Set Net Cash Farm Income



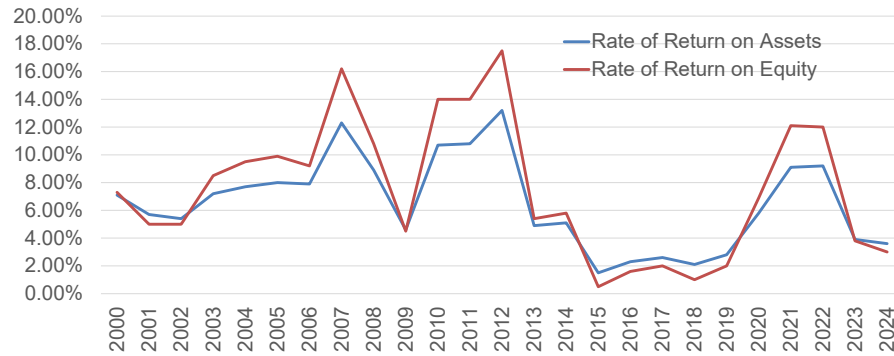
FINBIN Net Farm Income / Gross Farm Income Ratio



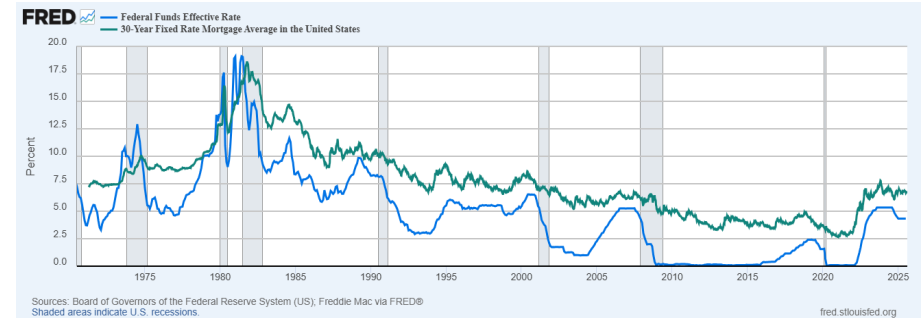
Dollars Spent On Land Purchases Vs. Dollars Received for Land Sales: Inflation Adjusted \$2007



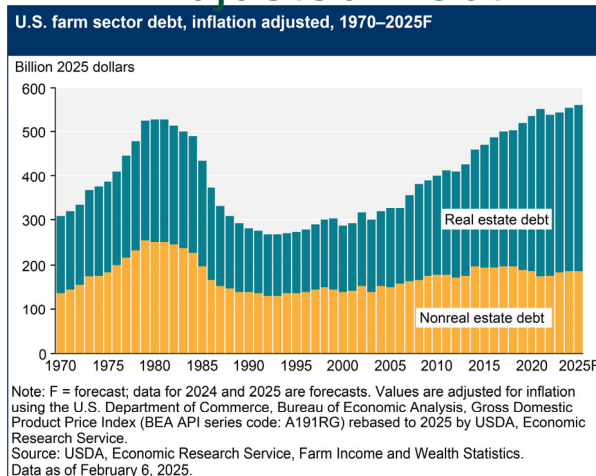
FINBIN Data Set ROR on Assets and Equity



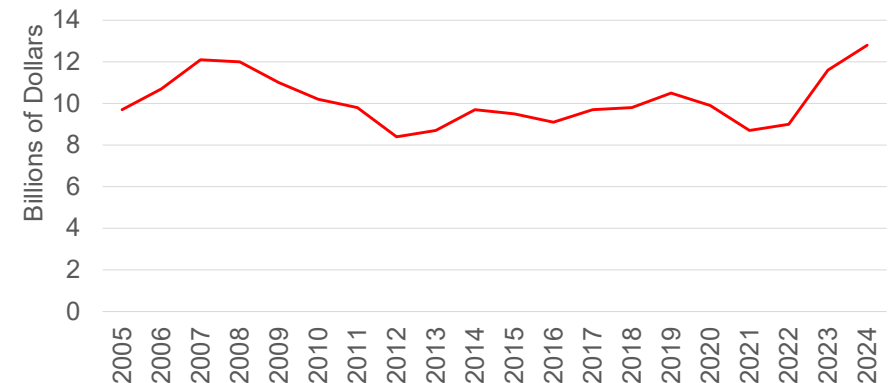
St Louis Federal Reserve 30-year Mortgage Rate vs. the Federal Funds Rate



USDA Farm Sector Inflation Adjusted Debt



Total Interest Paid in the U.S. By Ag. Producers

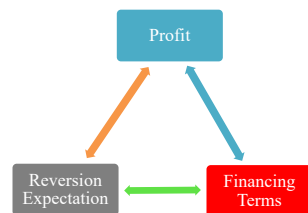


Fundamental Interest is a Fundamental Component of Agricultural Land Valuation

• Returns

– Expected Returns Includes:

- Annual Expected Profits
- Reversion (Resale Value)
- **Financing/Lending** Conditions (Interest Rates, Term, Required Initial Equity, and other Market Options)

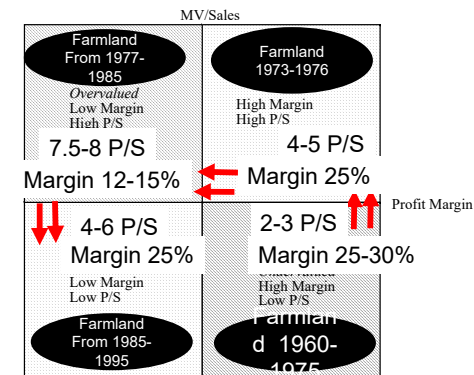


Applying Earnings Multiples to Farmland and Income in The 1980's

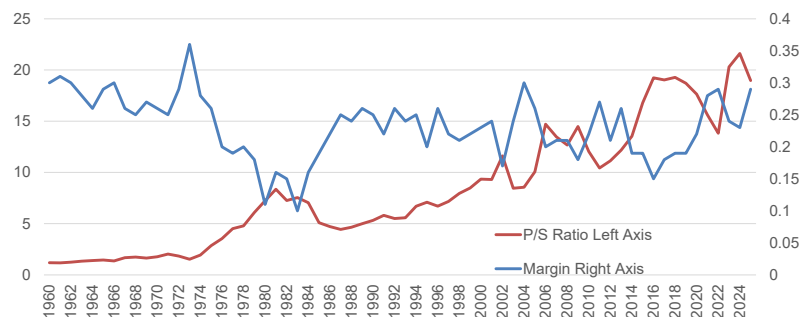
P/S = Price of land/Sales of production

$$\text{Price to Sales Ratio} = \frac{\text{Market Value of Equity}}{\text{Revenues}}$$

$$\text{Margin} = \frac{\text{Net Farm Income}}{\text{Cost of Production}}$$



Land Price To Net Cash Income



Questions?