

Fall 2024
Missouri Farm Income Outlook

October 2024
RaFF Report #09-2024

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What is the goal of this report?

In September 2024, the U.S. Department of Agriculture (USDA)'s Economic Research Service (ERS) released state-level farm income estimates through calendar year 2023. The present report published by the Rural and Farm Finance Policy Analysis Center (RaFF) provides an outlook for Missouri farm income in calendar years 2024 and 2025. It intends to inform policymakers, industry analysts, and agricultural practitioners about the state agricultural sector's expected profitability and its main drivers.

What methods were used to develop the outlook?

The RaFF Farm Income Model consists of a collection of equations calibrated using historical data from the USDA's ERS, Risk Management Agency and Farm Service Agency. RaFF's state-level forecasts are obtained by feeding national and regional projections from the Food and Agricultural Policy Research Institute at the University of Missouri (FAPRI-MU) to the RaFF model. Published results incorporate expert insights from agricultural economists at FAPRI-MU and the Division of Applied Social Sciences at MU.

How is farm income measured?

Following the ERS methodology (USDA 2024a), net cash farm income is calculated based on cash receipts, government payments, and insurance indemnities minus cash expenses in the calendar year when the cash flow occurs. Net cash farm income is adjusted by non-cash income and expenses and changes in inventory values to obtain a net farm income (NFI) measure.

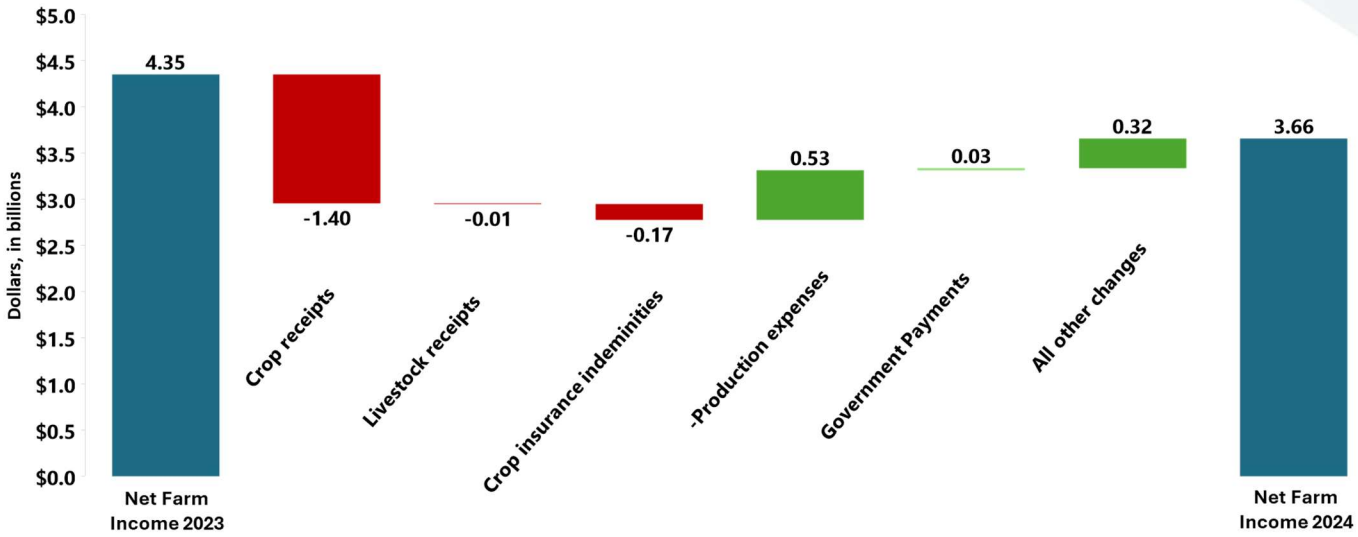
National Farm Income Trends

The ERS projects 2024 U.S. NFI at $140 billion, which is $6.5 billion (-4%) lower in nominal terms than in 2023 (USDA 2024b). Driving this change were a $27.7 billion decrease in corn and soybean cash receipts that more than offset the $17.8 billion increase in livestock receipts led by eggs, cattle and calves, milk and broilers, and a projected $4.4 billion reduction in production expenses led by feed, fertilizer and pesticide expenses. In addition, 2024 direct government payments are forecast to decline by $1.8 billion from 2023 to tally $10.4 billion. It must be noted that the ERS substantially revised historical U.S. farm income data in September 2024, lowering the 2023 NFI estimate by $9.4 billion (-6%) from $155.9 billion in February 2024 to $146.5 billion in September 2024.[1]

Based on updated ERS data, FAPRI-MU projects a $9 billion (-6.2%) nominal reduction in 2024 national NFI — a more significant decline than the drop ERS projects — followed by a further $8.4 billion (-6.1%) decline in 2025. Anticipated lower prices for many crops and poultry would pressure 2025 cash receipts (FAPRI-MU 2024). By 2025, the cumulative decline in nominal NFI would amount to $53 billion (-29%) of its 2022 peak ($182 billion). Adjusted for inflation, such decline would total $67.3 billion (-35%) in 2024 dollars. Similarly to ERS, FAPRI-MU reasons that the negative effects of lower crop prices on farm receipts would more than offset the positive effects of higher cattle prices and moderating farm production expenses.

[1] Major drivers of the downward revision in estimated 2023 U.S. NFI include higher cash expenses in net rent to nonoperator landlords (+$14.5 billion); labor (+$5.0 billion); fertilizer (+$5.4 billion); livestock purchases (+$1.8 billion); seed (+$1.7 billion); fuel and oil (+$1.3 billion); and marketing, storage and transportation (+$1.0 billion) as well as lower cash receipts from broilers (-$1.1 billion). Higher cash receipts from eggs (+$3.7 billion), vegetables (+$3.3 billion), fruits and nuts (+$2.0 billion), cattle and calves (+$1.7 billion), corn (+1.4 billion), soybeans (+1.4 billion), hogs (+1.0 billion) and sugar beets (+1 billion) as well as lower interest expenses (-$5.7 billion) and property taxes (-$1.6 billion) only partially mitigate the downward revision in NFI by the ERS.

Missouri net farm income to fall again in 2024



RaFF revised the 2023 volume of hog marketings in Missouri reported by the ERS on September 2024 from 2.4 billion pounds to 1.3 billion pounds. The adjustment addresses an unexpected change in the mix of hog and feeder pig sales implied by the ERS data. The resulting 2023 NFI estimate by RaFF is $4.35 billion, $540 million lower than the one published by the ERS.

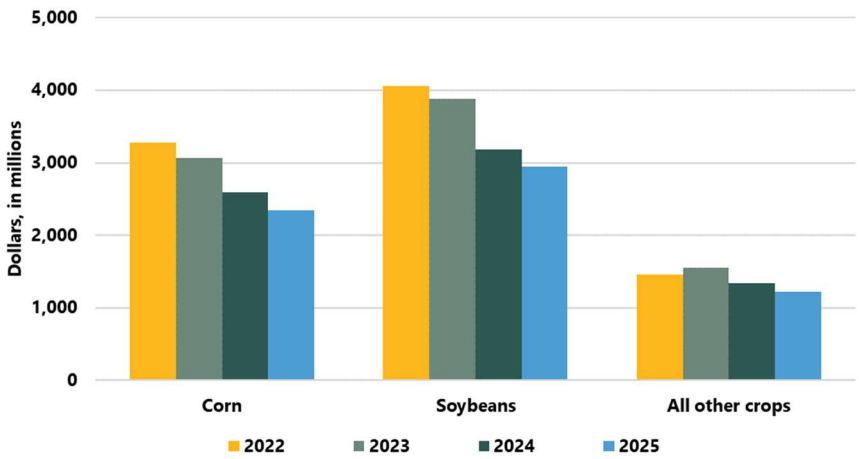
RaFF projects Missouri's NFI to decrease in 2024 by $697 million (-16%) to $3.66 billion. This would be the second consecutive year of declining NFIs, tallying a $1.70 billion drop from its $5.36 billion peak in 2022. In 2024, crop receipts would decline by $1.40 billion (-16%) and livestock receipts would be unchanged. A $0.53 billion (-4%) reduction in production expenses would partially mitigate the sting of lower receipts. Direct government payments are projected to increase slightly and crop insurance indemnities to decline by $0.17 billion.

The 16% drop in Missouri's NFI projected by RaFF is much larger than the 6.2% reduction in U.S. NFI projected by FAPRI-MU for 2024, due to the relatively larger share of crop receipts in the state production mix. Furthermore, the cumulative drop in NFI between 2022 and 2024 projected for Missouri by RaFF exceeds that projected for the United States by FAPRI-MU: -36% vs. -29%, respectively, in inflation-adjusted 2024 dollars.

Missouri Crops

- Lower crop prices in 2023 and 2024 led to 1.1 million fewer acres in production in 2024. Despite the 7% decline in total crop land planted, the 13.6 million acres in production in 2024 would be slightly higher than the previous 10-year average of 13.5 million acres.
- While harvested hay, corn, and wheat areas would decline by 925,000 acres (-24%), 410,000 acres (-11%), and 90,000 acres (-15%), respectively,

Crop receipts decline $1.4 billion in 2024

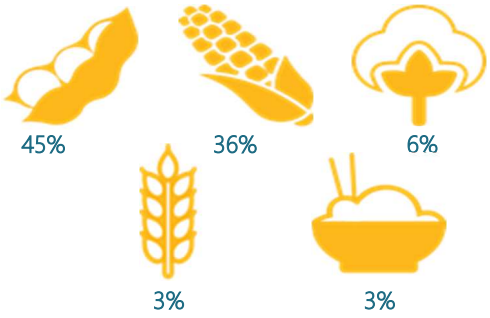


harvested soybean, cotton, and rice areas would expand, respectively, by 310,000 acres (+6%), 50,000 acres (+15%), and 14,000 acres (+7%) in 2024.

- A 28 bushel per acre (18%) increase in corn yields would more than offset the impact of a smaller area, propelling total corn production to 590 million bushels in 2024, a level only surpassed by the 629-million-bushel crop of 2014. However, a 16% decline in average corn prices (-$0.74 cent per bushel) would drive cash receipts down proportionately to $2.59 billion in 2024.
- Similarly, a 19% drop in soybean prices (-$2.46 dollars per bushel) would reduce soybean receipts proportionally to $3.18 billion; and a 16% reduction in upland cotton prices (-0.12 cents per pound) would push cash receipts 25% lower to $0.34 billion in 2024.
- Combined cash receipts for hay, rice and wheat are projected to decline in 2024, due mainly to lower prices.

2024 share of crop receipts

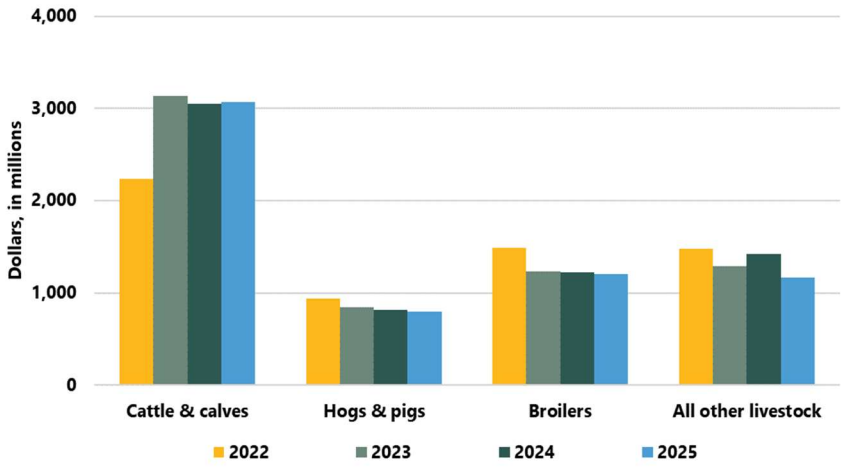
(listed in order of receipt value)



Missouri Livestock

- The cattle and calves' inventory at the beginning of 2024 was 150,000 head lower than at the beginning of 2023, reducing projected marketings for 2024 and 2025. Despite higher cattle prices, a 12% reduction in marketings would result in cattle receipts dropping by $92 million (-3%) to $3.05 billion in 2024.
- The total market hog inventory declined in December 2023 for the third consecutive year. However, a larger number of sows farrowed in 2024 would result in a larger pig crop. A 5% drop in marketings and stagnant hog prices would cause receipts to fall by $32 million (-4%) to $0.81 billion.
- As two broiler processing plants exited the market in southern Missouri, broiler production is forecast to decline by 5% to 1.64 billion pounds in 2024. Broiler cash receipts would decline $12 million (-1%) to $1.22 billion. Receipts for other livestock would increase a combined $129 million in 2024, driven mostly by stronger egg prices.

Livestock receipts stagnant in 2024

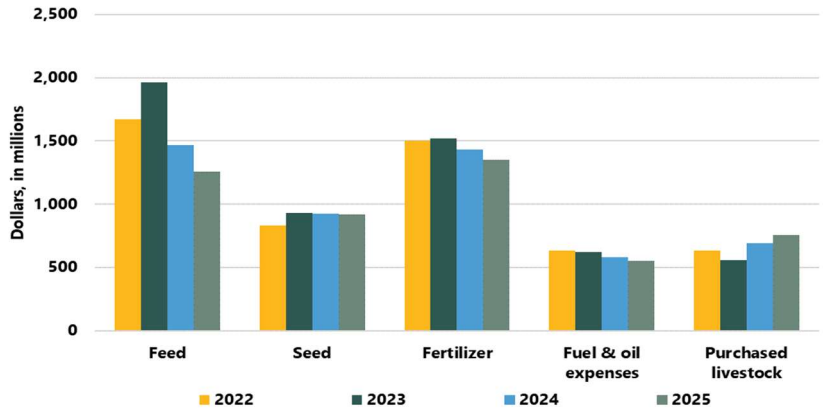


2024 share of livestock receipts

(listed in order of receipt value)



Lower crop input costs in 2024

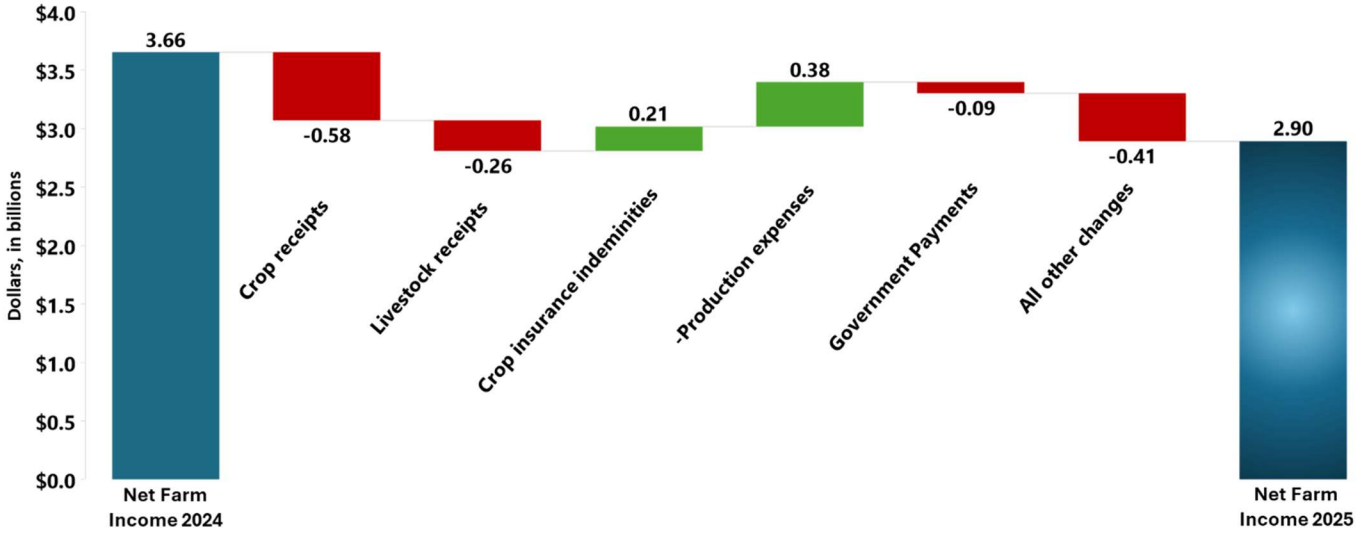


Missouri Expenses

- Expenses in feed, fertilizer, and fuel and oils are expected to decline, respectively, by $496 million (-25%) million, $88 million (-6%), and $40 million (-6%) in 2024.
- Seed expenses are expected to remain almost unchanged at $0.92 billion in 2024.
- Purchased livestock expenses would increase 25% to $695 million in 2024.
- Despite small increases in electricity, marketing, storage & transportation, and contract labor, total production expenses are expected to decline by 4% in 2024.

Tying it all Together

Missouri's NFI is projected to decrease by 16% in 2024 to $3.66 billion. Farm receipts would decline $1.66 billion, mostly driven by lower crop receipts and farm-related income (namely crop insurance indemnities). Production expenses are expected to fall $0.53 billion and government payments to remain stable. Moving forward, Missouri's NFI is projected to fall by an additional $0.76 billion (-21%) to $2.90 billion in 2025, driven by lower crop and livestock receipts, and substantial reductions in inventory values due to lower commodity prices, and despite slight reductions in production expenses.



Additional Resources

As Missouri's farmers and ranchers face tighter profit margins, University of Missouri Extension offers valuable support through resources and workshops to inform decision-making. For more information, visit https://muext.us/AgBusiness.

Disclaimer

The results presented in this report do not consider market uncertainty. Small proportional changes in cash receipts or production expenses can dramatically change the NFI outlook.

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