TENNESSEE AGRI-INDUSTRY BRIEF: WHEAT PRODUCTION FACT SHEET

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BACKGROUND

Tennessee grows winter wheat primarily in the western and middle part of the state. Soft red winter wheat is the dominant type of wheat produced in Tennessee. County-level wheat harvest acreage, production and yields for 2023 are shown in Figures 1, 2 and 3, respectively. Preliminary U.S. state-level marketing year average wheat prices are indicated in Figure 4. For Tennessee in 2023, the state-level marketing year average price for wheat was \$6.75 per bushel (USDA/NASS, 2024a).





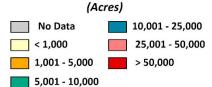
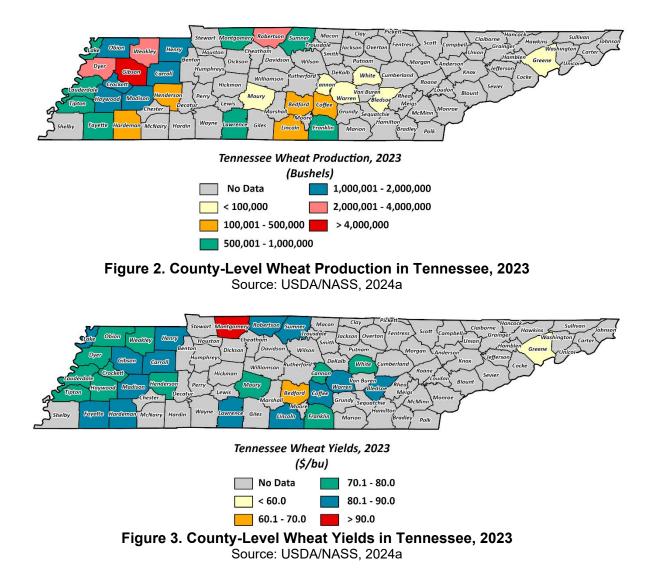


Figure 1. County-Level Wheat Harvested Acres in Tennessee, 2023 Source: USDA/NASS, 2024a



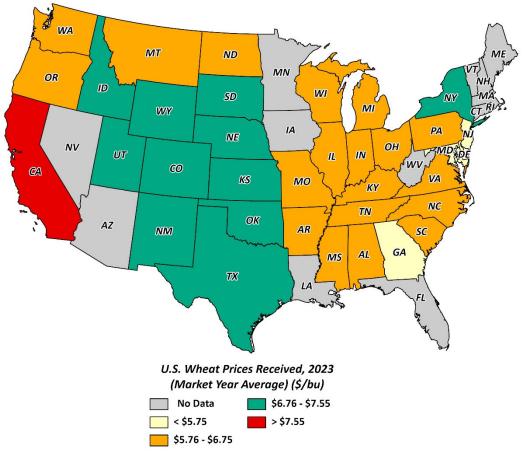


Figure 4. U.S. State Level Winter Wheat Prices Received, 2023 Source: USDA/NASS, 2024a

ECONOMICS

CASH RECEIPTS

For Tennessee's agricultural producers in 2022, wheat cash receipts ranked 8th at \$186.0 million (preceded by soybeans, broilers, cattle and calves, corn, miscellaneous crops, cotton, and hay) for the agricultural commodities produced in the state. Compared to other states for 2022, Tennessee ranked 19th in cash receipts from wheat (USDA/ERS, 2023).

MULTIPLIER EFFECTS

Accounting for all wheat farming for the state, and including multiplier effects, the industry in 2022 contributed an estimated \$402.3 million in economic activity. This economic activity was comprised of an estimated 3,284 individuals working part- or full-time in industries that support wheat farming, with a labor income of \$81.9 million.¹ The 2022 economic activity and employment multipliers were 1.94 and 1.58, respectively. If wheat production increased total industry output (economic activity) by \$1 million, the state's economy would increase by an estimated \$0.98 million overall, and for each job supported in the same industry, an estimated 0.58 jobs would be supported in other industries. Flour milling in 2022 contributed an estimated \$984.6 million in economic activity and was comprised of 2,961 employees, with a labor income of \$160.4 million (IMPLAN Group, LLC, 2022).

TRADE

Bulk agricultural trade for Tennessee's wheat in 2022 totaled \$2.3 million. Mexico was Tennessee's largest trading partner for wheat (USDA/FAS, 2023).²

WHEAT PRODUCTION

Tennessee's planted and harvested wheat acreages from 2013 to 2023 are displayed in Figure 5. The average planted and harvested wheat acreages were 421,364 and 349,091 acres, respectively. Tennessee wheat production for that same time frame is displayed in Figure 6. The average production was 24.4 million bushels. From 2013 to 2023, Tennessee wheat yields averaged 69.4 bushels per acre (Figure 7), with a marketing year average price of \$5.94 per bushel (Figure 8). Compared to other states for 2023, Tennessee ranked 19th for both planted and harvested wheat acreages. The state ranked 18th in production and 13th in yields for that time frame. North Dakota ranked first in harvested acreage; Kansas ranked first in planted.

¹Calculations based on IMPLAN's 2022 direct value of production of \$207.5 million, which includes on-farm consumption and is net of inventory changes. IMPLAN's grain farming corresponds to NAICS codes 111130, 111140, 111150, 111191 and 111199 establishments primarily engaged in raising small grains (wheat), corn and sorghum (US Census Bureau, 2023). ²USDA/FAS state export data limitations for agricultural shipments: 1) origin of movement is not necessarily the transportation origin (inland state intermediaries shipping agricultural commodities down the Mississippi River to the port in New Orleans may report Louisiana as the state of origin of movement, resulting in understating exports from agricultural states and overstating exports for others); and 2) consolidated shipments will reflect the state of origin where consolidated (USDA/FAS, 2023).

North Dakota ranked first in production, with Arizona ranking first in yields (USDA/NASS, 2024a & 2024b).

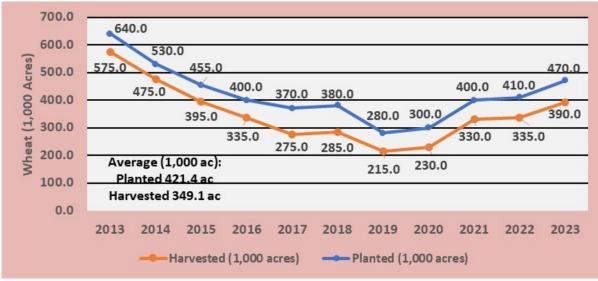
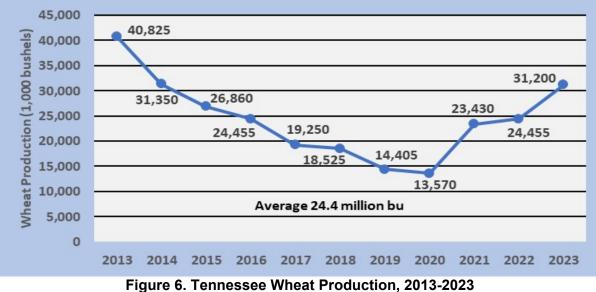
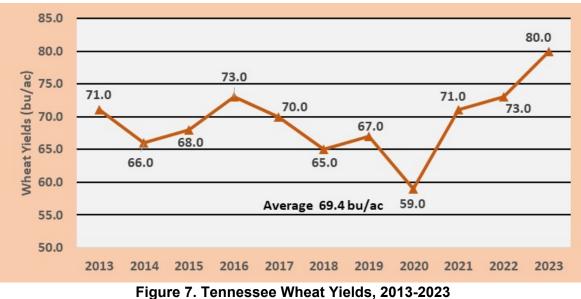


Figure 5. Tennessee Planted and Harvested Wheat Acres, 2013-2023 (Source: USDA/NASS, 2024b)



(Source: USDA/NASS, 2024b)



(Source: USDA/NASS, 2024b)



Figure 8. Tennessee Marketing Year Average Wheat Prices Received, 2013-2023 (Source: USDA/NASS, 2024a)

WHEAT PRODUCTION SUGGESTED READING

FIELD CROP BUDGET

- Smith, A., and B. Bowling. 2023. "Field Crop Budgets for 2023." University of Tennessee Extension, Department of Agricultural and Resource Economics. D 33. Available at <u>extension.tennessee.edu/publications/Documents/D33.pdf</u>.
- Current Weekly Crop Comments and Market Highlights Information. Available at arec.tennessee.edu/extension/crop-economics.

CROP ECONOMICS

- Bowling, B., and A. Smith. 2023. "2023 Planted Acreage for Corn, Cotton, Grain Sorghum, Soybeans and Wheat in Tennessee by County." University of Tennessee Extension, Department of Agricultural and Resource Economics. W 442. Available at <u>extension.tennessee.edu/publications/Documents/W442.pdf</u>.
- Smith, A., and B. Bowling. 2023. "Tennessee Cropland, Irrigated Cropland and Pastureland Cash Rental Rates for 202." University of Tennessee Extension, Department of Agricultural and Resource Economics. W377. Available at <u>extension.tennessee.edu/publications/Documents/W377.pdf</u>.

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- IMPLAN Group LLC, IMPLAN System (2022 data and Cloud Platform V. 7.0 software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078. Available at implan.com.
- U.S. Census Bureau. 2023. North American Industry Classification System. Available at census.gov/naics.
- U.S. Department of Agriculture, Economic Research Service (ERS). 2023. Data Files: U.S. and State-Level Farm Income and Wealth Statistics. "Annual Cash Receipts by Commodity, U.S. and States, 2008-2023F." Available at ers.usda.gov/data-products/farm-incomeand-wealth-statistics/data-files-u-s-and-state-level-farm-income-and-wealth-statistics.
- U.S. Department of Agriculture, Foreign Agricultural Service. 2023. Global Agricultural Trade System. Available at <u>apps.fas.usda.gov/gats/ExpressQuery1.aspx</u>.
- U.S. Department of Agriculture, National Agricultural Statistics Service (NASS). 2024a. "Quick Stats Tools." Available at <u>nass.usda.gov/Quick_Stats</u>.

U.S. Department of Agriculture, National Agricultural Statistics Service (NASS). 2024b. "Crop Production Annual Summary." Available at <u>usda.library.cornell.edu/concern/</u> <u>publications/k3569432s?locale=en</u>.



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