TENNESSEE AGRI-INDUSTRY BRIEF: HAY PRODUCTION FACT SHEET

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BACKGROUND

Tennessee agriculture producers grow hay in every county. County-level numbers of hay farms, harvested acreage, and production for 2022 are shown for both all hay and alfalfa in Figures 1 through 6. U.S. state-level marketing year average prices for all hay and alfalfa from May 1 to April 30 are indicated in Figures 7 and 8, respectively. For Tennessee in 2023, the state-level marketing year average price for all hay and alfalfa were \$145 and \$223 per ton, respectively (USDA/NASS, 2023).



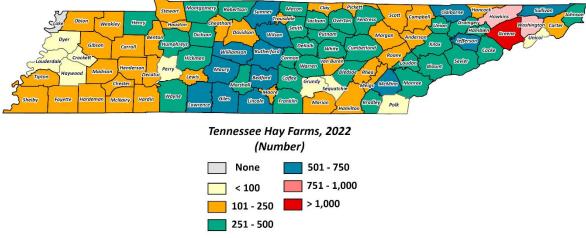


Figure 1. County-Level Hay Farms in Tennessee, 2022 Source: USDA/NASS, 2024b

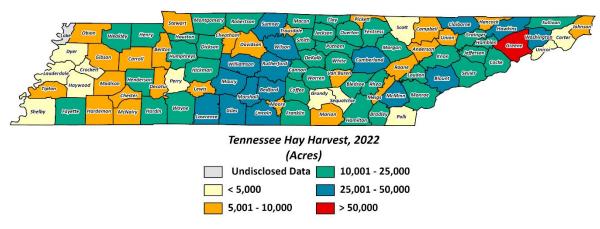


Figure 2. County-Level Hay Harvested in Tennessee, 2022 Source: USDA/NASS, 2024b

Tennessee Hay Production, 2022 (Tons) Undisclosed Data 50,001 -75,000 < 10,000 75,001 - 100,000 10,001 - 25,000 > 100,000

Figure 3. County-Level Hay Production in Tennessee, 2022 Source: USDA/NASS, 2024b

25,001 - 50,000

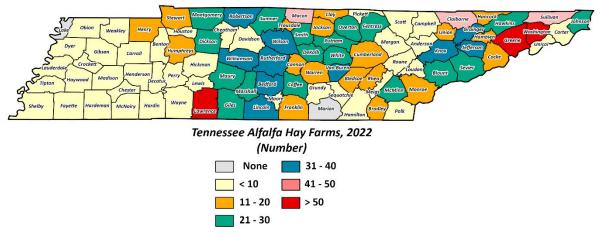


Figure 4. County-Level Alfalfa Hay Farms in Tennessee, 2022

Source: USDA/NASS, 2024b

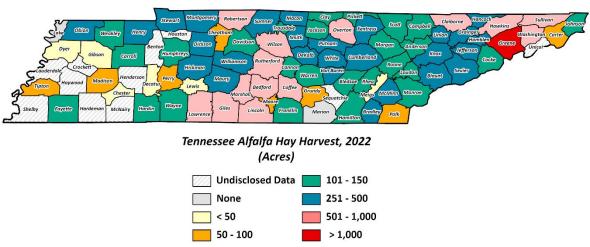


Figure 5. County-Level Alfalfa Hay Harvested in Tennessee, 2022

Source: USDA/NASS, 2024b

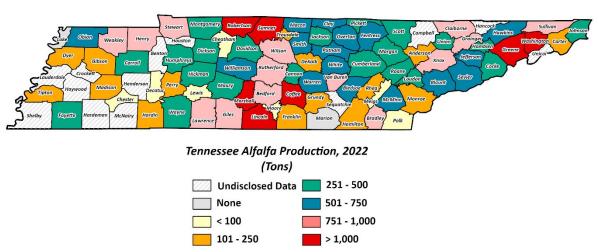


Figure 6. County-Level Alfalfa Hay Production in Tennessee, 2022

Source: USDA/NASS, 2024b

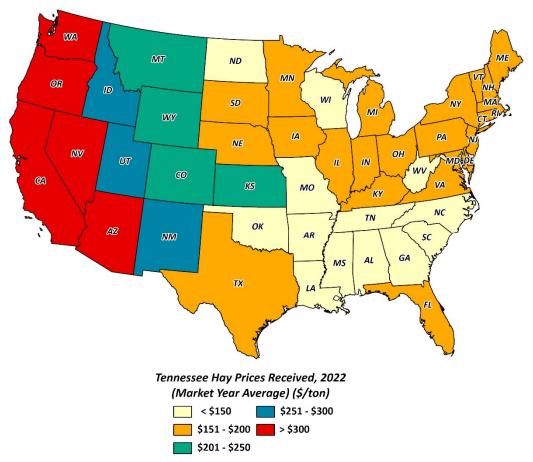


Figure 7. U.S. State-Level Hay Prices Received, 2022 Source: USDA/NASS, 2023

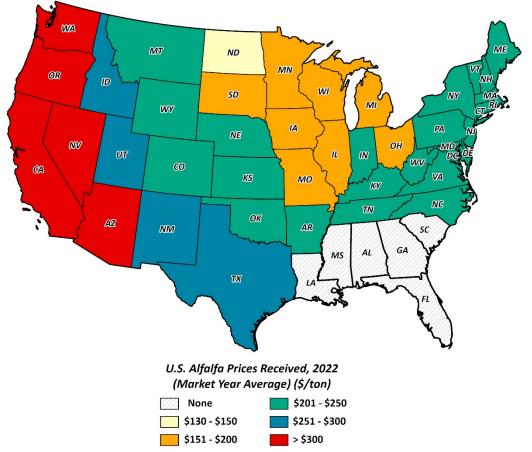


Figure 8. U.S. State-Level Alfalfa Hay Prices Received, 2022 Source: USDA/NASS, 2023

ECONOMICS

CASH RECEIPTS

For Tennessee's agricultural producers in 2022, hay cash receipts at \$207.7 million ranked 7th (preceded by soybeans, broilers, cattle and calves, corn, miscellaneous crops, and cotton) for the agricultural commodities produced in the state. Compared to other states for 2022, Tennessee ranked 16th in cash receipts from hay (USDA/ERS, 2023).

MULTIPLIER EFFECTS

Accounting for all hay farming for the state, and including multiplier effects, the industry in 2022 contributed an estimated \$318.3 million in economic activity. This economic activity was comprised of an estimated 19,514 individuals working part- or full-time in industries that support hay farming, with a labor income of \$73.9 million. The 2022 economic activity and employment multipliers were 1.74 and 1.03, respectively. If hay production increased total industry output (economic activity) by \$1 million, the state's economy would increase by an estimated \$0.74 million overall, and for each job supported in the same industry, an estimated 0.03 jobs would be supported in other industries (IMPLAN Group, LLC, 2022).

ALL HAY PRODUCTION

Tennessee's harvested acreage for all hay from 2013 to 2023 is displayed in Figure 9. The average harvested acreage was 1.7 million acres. Tennessee hay production for that same time frame is displayed in Figure 10. The average production was 3.9 million tons. From 2013 to 2023, Tennessee average hay yields were 2.3 tons per acre (Figure 11), with a marketing year average price of \$117.73 per ton (Figure 12). Compared to other states for 2023, Tennessee ranked 10th for harvested hay acreages, 12th for production and 24th for yields. For 2023, Texas ranked first for both harvested acreage and production, with Arizona ranking first for yields (USDA/NASS, 2023, 2024a, and 2024b).

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¹Calculations based on IMPLAN's 2022 direct value of production of \$182.7 million, which includes on-farm consumption and is net of inventory changes. IMPLAN's all other crop farming corresponds to NAICS codes 111940—establishments primarily engaged in growing hay, alfalfa, clover, and/or mixed hay and 111998—other miscellaneous crop farming (e.g., hay and grass seed farming, hop farming, and spice farming, etc.) (US Census Bureau, 2023).

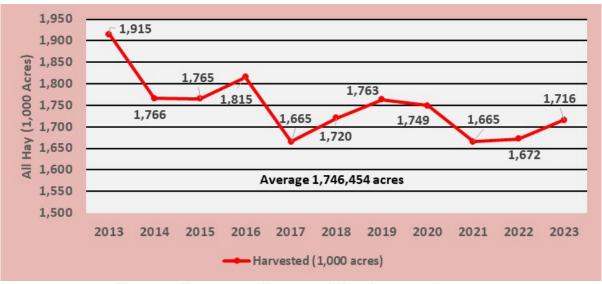


Figure 9. Tennessee Harvested Hay Acres, 2013-2023

(Source: USDA/NASS, 2024a)

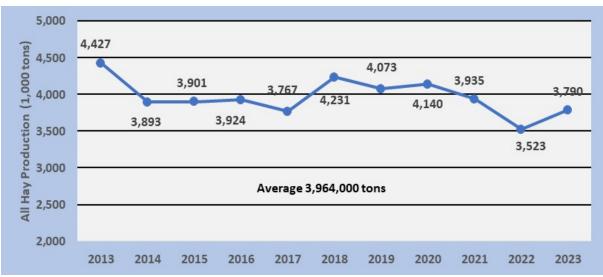


Figure 10. Tennessee Hay Production, 2013-2023

(Source: USDA/NASS, 2024a)

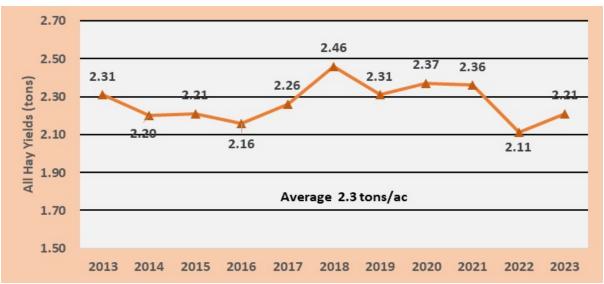


Figure 11. Tennessee Hay Yields, 2013-2023 (Source: USDA/NASS, 2024a)



Figure 12. Tennessee Marketing Year Average Hay Prices Received, 2013-2023 (Source: USDA/NASS, 2023)

ALFALFA HAY PRODUCTION

Tennessee's harvested acreage for alfalfa hay from 2013 to 2023 is displayed in Figure 13. The average harvested acreage was 15,545.5 acres. Tennessee alfalfa hay production for that same time frame is displayed in Figure 14. Average production was 53,727 tons. From 2013 to 2023, Tennessee alfalfa average hay yields were 3.5 tons per acre (Figure 15), with a marketing year average price of \$219.09 per ton (Figure 16). Compared to other states for 2023, Tennessee ranked 31st for harvested alfalfa hay acreage. The state ranked 31st in production and 18th in yields for that time frame. South Dakota ranked first for harvested alfalfa hay acreage. Idaho ranked first in production, with Arizona ranking first in yields (USDA/NASS, 2023, 2024a, and 2024b).

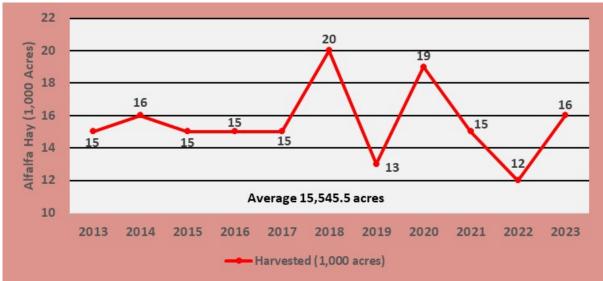


Figure 13. Tennessee Harvested Alfalfa Hay Acres, 2013-2023 (Source: USDA/NASS, 2024a)

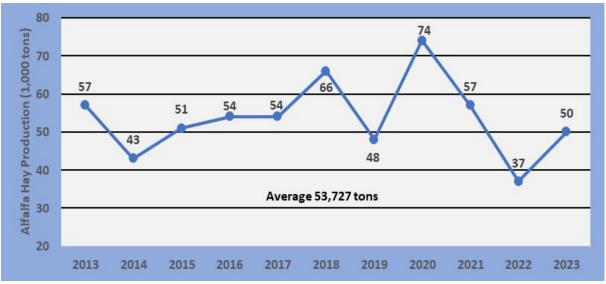


Figure 14. Tennessee Alfalfa Hay Production, 2013-2023 (Source: USDA/NASS, 2024a)

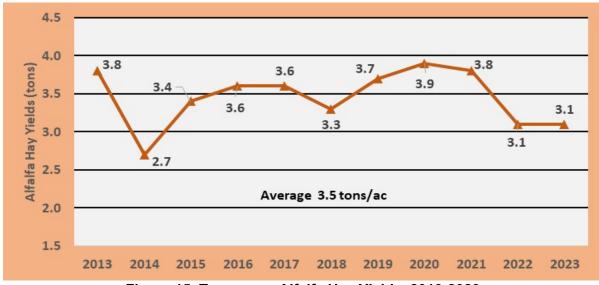


Figure 15. Tennessee Alfalfa Hay Yields, 2013-2023 (Source: USDA/NASS, 2024a)



Figure 16. Tennessee Marketing Year Average Alfalfa Hay Prices Received, 2013-2023 (Source: USDA/NASS, 2023)

REFERENCES

- 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-income-and-wealth-statistics.
- U.S. Department of Agriculture, National Agricultural Statistics Service (NASS). 2023. "Quick Stats Tools." Available at https://www.nass.usda.gov/Quick_Stats/.
- U.S. Department of Agriculture, National Agricultural Statistics Service (NASS). 2024a. Crop Production Annual Summary. Available at https://usda.library.cornell.edu/concern/publications/k3569432s.
- U.S. Department of Agriculture, National Agricultural Statistical Service (NASS). 2024b. "Tennessee State and County Data." 2022 Census of Agriculture Report. Volume 1, Geographic Area Series, Part 42. Available at https://www.nass.usda.gov/Publications/ AgCensus/2022/index.php.



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