

# Texas Dairy Matters

*Higher Education Supporting the Industry*

## How will Texas succeed at ranking No. 3 for milk production by 2025?

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Last month’s Texas Dairy Matter’s article written by Dr. Piñeiro<sup>1</sup> demonstrated that Texas has the potential to surpass the milk production of both New York and Idaho and rank third in the U.S. by 2025. To support this increased supply of milk, however, there will need to be more dairy cows, more efficient milk production by dairy cows, and more processing plants in Texas. This article will describe how these three factors will help to meet the projected milk supply needed by 2025 to rank Texas third in the U.S.

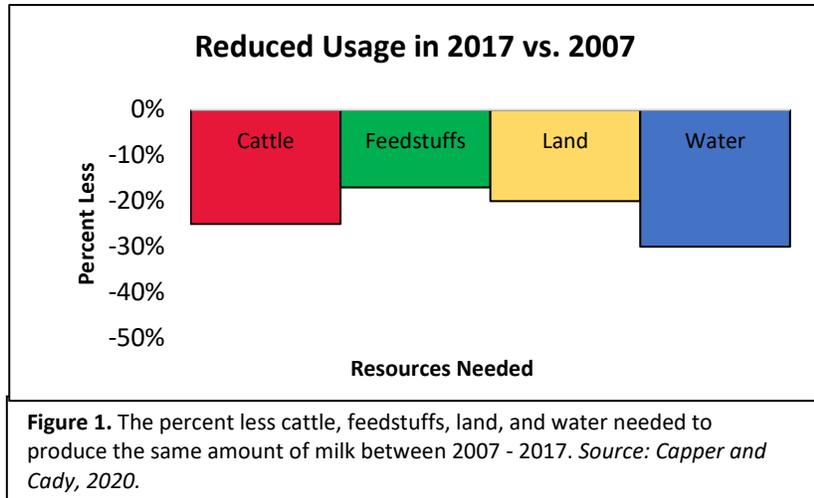
Milk production in Texas has increased an average of 6.7% per year from 2017 to 2021<sup>2</sup>. If that average annual increase continues, Texas milk production will be 20.3 billion pounds of milk by 2025 (Table 1). However, the following scenarios demonstrate the significance the combination of an increased number of cows and annual milk production per cow will have on Texas’s ability to produce 20.3 billion pounds of milk, which is what is expected to be needed to move the state to No. 3 by 2025.

<b>Table 1.</b> Predicted total annual milk production (billion lbs.) from 2021 – 2025 if Texas increases at a rate of 6.7% per year <sup>1</sup> .				
2021	2022	2023	2024	2025
15.7	16.7	17.9	19.1	20.3
<sup>1</sup> Estimated average percentage increase per year was calculated using the average percent increase from 2017 – 2021. Source: 2017 – 2021 USDA-NASS 2017 – 2021 Milk Production.				

### ***Increasing the Number of Cows***

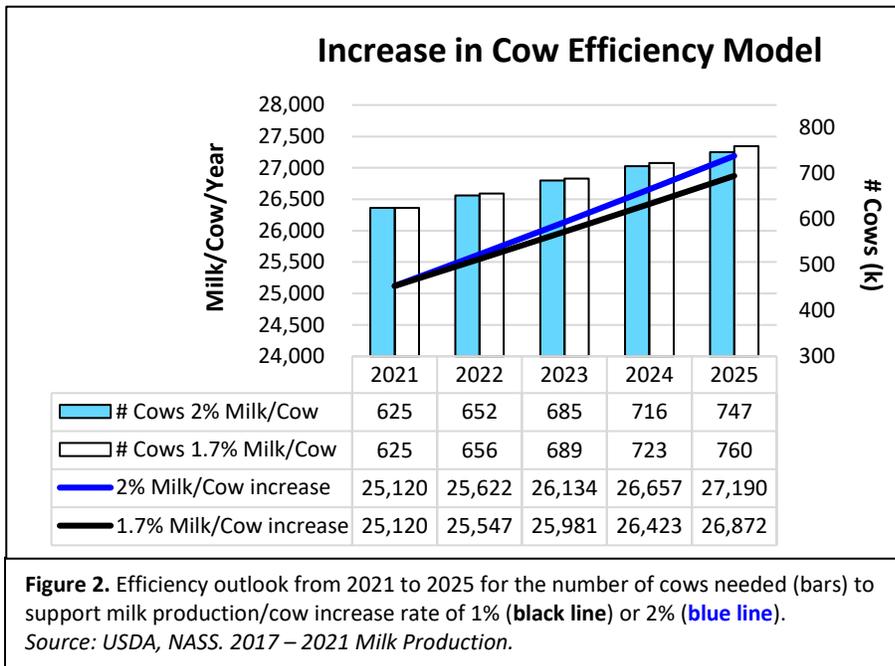
To reach the No. 3 rank, Texas first must build its dairy herd. From 2017 to 2021, the number of dairy cows in the state increased by 5% per year<sup>2</sup>. If that continues, Texas will have 135,000 more dairy cows by 2025. There may be a concern that 135,000 more dairy cows in the state could impact resources such as land, water, and feedstuffs available for milk production. However, research has shown that the dairy industry has improved resource efficiencies from 2007 to 2017, thus reducing the amount of resources needed to produce the same amount of

milk<sup>3</sup>. In fact, approximately 25% fewer cattle, 17% less feedstuffs, 20% less land and 30% less water was needed in 2017 for dairy cows to produce the same amount of milk than in 2007 (Fig. 1)<sup>3</sup>. Therefore, by continuing to improve resource usages, Texas will be able to support the additional predicted 135,000 cows that would be needed to produce the estimated amount of milk (Table 1) in Texas by 2025.



### Increased Milk Production per Cow

The second step necessary to reach the No. 3 ranking is increasing milk production per cow. From 2017 to 2021, annual milk production per cow (calculated from the total milk production in Texas divided by number of dairy cows) increased by 1.7%, well above the national average of 0.7%<sup>2</sup>. If dairy cows continue to improve their milk production efficiency and produce 1.7% more milk each year, dairy cows in Texas will produce 1,762 more pounds by 2025 than in 2021 (Figure 2).



If dairy cows can further improve the amount of milk they produce annually, fewer cows will be needed to produce the same amount of milk. Figure 2 demonstrates the differences between an increased rate of 1.7% and 2% in milk production per cow. An increase of milk/cow/year increasing at a rate of 1.7% yearly (black line) will result in dairy cows producing 26,872 lbs./year by 2025. On

the other hand, with an increased rate of 2% (blue line) milk/cow/year will be 27,190 lbs./year in Texas by 2025 (Fig. 2). Therefore, an increase of milk production efficiency/cow/year from a rate of 1.7% (white bar) to 2% (blue bar), could mean 13,000 fewer dairy cows will be needed to produce the additional 4.6 billion pounds of milk by 2025 (Fig. 2).

## ***Milk Processing Facilities Needed***

A key factor we can't forget, however, is what to do with all that extra milk. Even if there is an increase in milk production efficiency by dairy cows and/or an increase in number of dairy cows to produce the additional 4.6 billion pounds of milk by 2025, more processing plants and/or the expansion of existing milk processing plants will be needed to support the increased supply of milk. The good news is it appears that won't be a problem. It was announced recently that a new plant will break ground in Lubbock in 2022 and should be operational by 2025. A plant in Abilene is expanding, and two more plants are being built in the Texas Panhandle are expected to be operational by 2022. Another plant is under construction in western Kansas that can help to process the increased milk supply and is expected to be operational by 2024.

## ***Conclusion***

As the Texas dairy industry continues to grow, it is easy to see how it has the potential to rank No. 3 in milk production in the U.S. very soon. Increases in the number of dairy cows, fewer resources needed for milk production, gains in dairy cattle milk production efficiency, and the growth of milk processing facilities will easily help Texas move up in the U.S. ranks. In fact, it is possible Texas could become the third highest milk producing state in the U.S. even before 2025.

## **References**

- <sup>1</sup> Piñeiro, J. M. December 2021. Will Texas become the #3 dairy state in the country? <https://texasdairymatters.tamu.edu/files/2021/11/Will-Texas-become-the-3-dairy-state-in-the-country.pdf>.
- <sup>2</sup> U.S. Department of Agriculture, National Agricultural Statistics Service. 2016, 2017, 2018, 2019, 2020, and 2021. Milk Production. [www.nass.usda.gov](http://www.nass.usda.gov).
- <sup>3</sup> Capper, J. L., and R. A. Cady. 2020. The effects of improved performance in the U.S. dairy cattle industry on environmental impacts between 2007 and 2017. *J. Anim. Sci.* <https://doi.org/10.1093/jas/skz291>.

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