

A Case Study with Severy Farm on Milking a Grass-fed Dairy Herd 10-in-7

Introduction

As farmers continue to find ways to adapt to milk and labor market conditions, adopting alternative production strategies, such as once-a-day (OAD) milking, is becoming increasingly appealing. However, while reducing milking frequency can reduce labor needs surrounding milking tasks, milk production can be significantly reduced. In a grass-fed herd, milk production is already lower than other pasture-based (i.e., organic) systems and therefore may present an opportunity to minimize production reductions in response to alternative milking schedules. To examine this scenario, data were collected from a certified grass-fed dairy farm in Vermont that switched from twice-a-day (TAD) or fourteen times a week milking to milking ten times a week (10-in-7) for twelve months. This report will summarize the findings of that case study.

Materials and Methods

Severy Farm is a certified organic grass-fed dairy farm located in Cornwall, VT. This dairy farm has been in operation for almost 50 years and certified grass-fed for approximately 2.5 years. The herd is composed of approximately 60 crossbred dairy cattle that calve year-round. The average daily milk production for the herd with TAD milking was 31.3 lbs/cow which is slightly higher than the 30.5 lbs/cow national average for grass-fed dairy (Snider et al., 2019).



Severy Farm's grass-fed cows grazing fall annual forages.

Milk sales data were collected from Severy Farm from December 2019 through November 2022. Data included total pounds of milk, fat, protein, and other solids shipped each month as well as the number of cows milking each month.

Results

The herd was averaging 31.3 lbs/cow when milking TAD but was down to 29.6 lbs/cow in July prior to the schedule adjustment. The farm switched to a 10-in-7 schedule in August 2021. Production decreased to 24.9 lbs/cow in August when the schedule change occurred and continued to decrease slightly through October.

Northwest Crops and Soils Program | 278 South Main Street, Suite 2 | St. Albans, VT 05478-1866

802-524-6501 or 1-800-639-2130 (toll-free in Vt.) | cropsoil@uvm.edu

uvm.edu/extension/nwcrops

Production increased in November and remained consistent through the remainder of the winter. Figure 1 compares production over the same months during the TAD (Aug 2020—July 2021) and 10-in-7 (Aug 2021—July 2022) schedules.

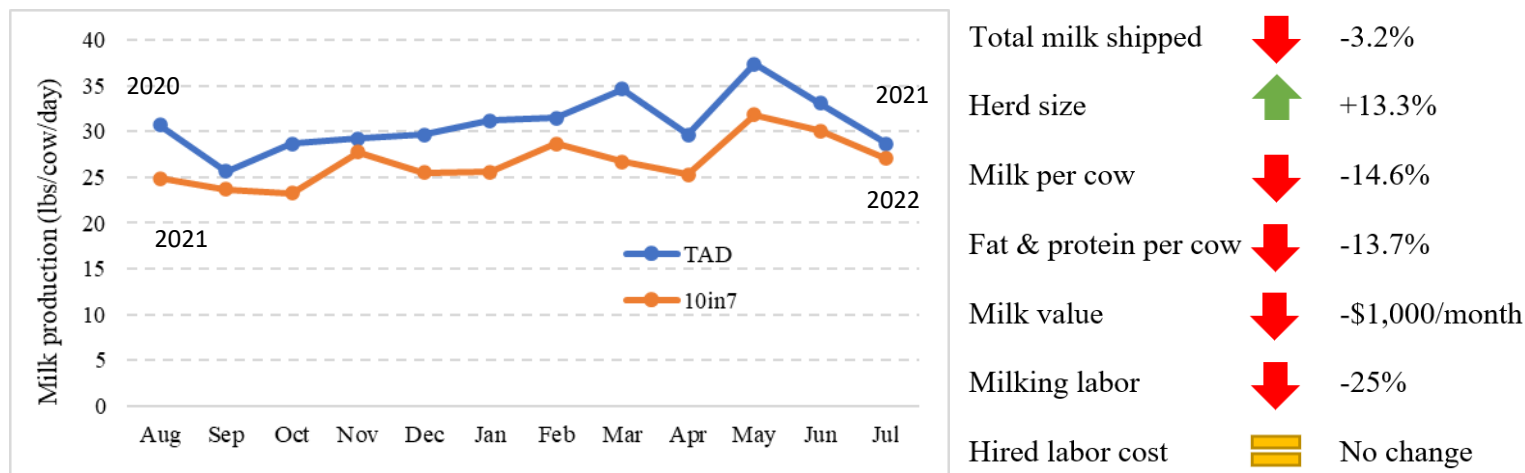


Figure 1. Daily milk production under two milking frequencies.

On average, the total amount of milk shipped by the herd each month only decreased by 3.2%. However, the herd size had increased by 13.3% (6 cows) during that time. Therefore, the production per cow had actually decreased by 14.6%. Similarly, pounds of fat and protein shipped, and therefore the value of those components, remained similar when looking at the herd as a whole, however both fat and protein produced per cow decreased by approximately 13.7%. Overall, the value of the milk produced decreased by approximately \$1,000 per month. Despite this, the farm was able to increase the herd size while decreasing the labor required for milking by approximately 25%. In addition, the farm maintained the same labor requirement for completing barn chores despite the increased herd size. Hence, the farm was more labor efficient only requiring additional hired labor during the summer to complete field work. The cost savings of avoiding additional hired labor to complete chores in addition to the other realized benefits surpassed the \$1000/month decrease in milk income.

Additional benefits cited by the farmer:

- Increased labor efficiency
- Improved cow health
- Improved cow body condition
- Maintained milk SCC

Conclusions

The slight increase in herd size was sufficient to continue shipping similar amounts of milk and components which allowed the milk value to remain constant. While there are some increased costs associated with increasing herd size, labor efficiency gains and the ability to maintain overall productivity and economics while providing flexibility in daily tasks has allowed this farm to continue this practice. Although the milking schedule is challenging, it provides better opportunities for family time and other uses of time that contribute to increasing quality of life.

This work is supported by the University of Vermont, Federal Award ONE 20-360 from the USDA National Institute of Food and Agriculture Northeast Sustainable Agriculture Research and Education Program. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

