



Extension

UNIVERSITY OF WISCONSIN-MADISON

Considerations in Reducing Milk Production

Switching Cows from 3X to 2X Milking

Scott Gunderson | Dairy Agent | Extension Manitowoc County

Victor Cabrera | Dairy Management Specialist & Professor | UW Madison Extension & Department of Dairy Science

For those dairies milking 3X per day, switching from 3X to 2X is an option to reduce milk production that could be used until the impacts of COVID-19 on the dairy supply chain subside. This may result in a reduction of approximately eight pounds of milk per cow per day for most herds. However, this option has to be considered carefully.



Switching high producing cows (greater than 100 pounds per day) from 3X to 2X may cause animal stress resulting in leaking milk, increased mastitis, reduced lying time, and discomfort to cows. Observations from Cornell University researchers suggest high producing cows should continue being milked 3X until past peak milk production at which time that can be switched to 2x. As cows freshen, it is suggested milking fresh cows 2X, with these cows switched to 3X milking after the COVID-19 pandemic subsides.

Altering the diet prior to moving high producing cows from 3X to 2X will reduce nutrients to the mammary gland and decrease milk production. After a natural reduction due to the nutritional changes occurs, cows may transition easier when switched from 3X to 2X milking. When making this transition, standing time in the holding area must be closely monitored. The goal for 2X herds is no more than one hour of standing time in the holding area per shift.

Eliminating one milking shift must also be evaluated. Producers who received Paycheck Protection Program (PPP) loans from the Small Business Administration need to maintain their employees in order to not repay a portion of the PPP loan. Switching from 3X to 2X will mean a portion of the milkers may need to be trained to do other work on the dairy, such as working a shift feeding calves an extra time each day or assisting with field work. Considering shift pay, versus hourly pay, may help ensure the cows are milked properly and on time so that they can return to their pens in a timely fashion.

Milking select groups of cows 2X may be a good option. As cows freshen, mid- to late-lactation cows, do not breed cows (DNBs), and cows past their peak production may be good candidates for 2X. These cows will either exit the herd as cull cows, or they will have an opportunity after dry off and calving to be placed back on a 3X schedule. Another advantage to moving these cows from 3X to 2X is a decrease in

dry matter intake (DMI). On average, each pound of dry matter (DM) results in about two to three pounds of increased milk production. If milk production is reduced by eight pounds per cow per day as a result of switching to 2X, DMI will decrease by about three pounds. Based on \$0.11 per pound DM, the decrease (DMI) would result in savings of approximately \$0.30 to \$0.35 cents per cow per day. Other savings in addition to labor and feed include milking supplies, electricity, and equipment maintenance. It is important to contact your vendors to inform them of any milking changes you make and to ask for their professional advice.

To help determine an individual farm's decision to switch from 3x to 2x milking based on herd parameters, University of Wisconsin-Madison Extension Dairy Management portal (<https://DairyMGT.info>) has a tool named [Economic Analysis of Switching from 2x to 3x Milking](#) (Tools -> Production) that could be useful in determining the additional costs and revenues of switching 2X to 3X milking, which corresponds exactly with the opposite, switching from 3X to 2X milking.

Switching cows from 3x to 2x milking provides one of the largest opportunities for reduced milk production of approximately eight pounds per day per day. However, it is only one of several strategies that can be used for milk reduction due to COVID-19 impacts. Farmers are encouraged to consult with their team of advisors and service-providers to determine which strategies work best for the farm's management, facilities, finances, and goals.

Image source: Extension Kewaunee County Agriculture Agent Aeria Bjurstrom

Peer reviewed by Extension Fond du Lac County Dairy & Livestock Agent Tina Kohlman; Extension Vernon County Agriculture Educator Ashley Olson; and Extension Green County Agriculture Educator Jackie McCarville.