

# Comfortable, Content Cows Give More Milk

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Cow comfort has a direct impact on the daily health and milk production. Rick Grant and other scientists at the Miner Institute in New York have studied the daily routine of a high producing dairy cows housed in a freestall barn. By combining this information with what we know about improving cow comfort, we can better manage our herds to improve profitability.

**Daily Routine #1:** High-producing cows rest 12 to 14 hours daily.

**Implications:** Cows need a clean comfortable place to lie down and rest. Freestalls should be well bedded and sized such that cows want to use the stalls. Stalls that are uncomfortable cause cows to spend too much time standing and increase the chances for lameness. We all know that lame cows do not get up to the feed bunk and eat and thus do not milk to their potential. The question you need to ask yourself– are your freestalls well-bedded and comfortable? If you were a cow, would you want to lie down in your cows' freestalls? When you kneel in the freestalls, is the surface soft and provide a cushioned surface for your knees to rest upon?

**Daily Routine #2:** Cows spend about 6 hours eating- usually in 9 to 14 meals per day.

**Implications:** Dairy cows need to have feed in front of them at all times other than the time they are waiting to be milked – hence 20 to 22 hours daily. Stimulating cows to come up and eat can increase milk production especially in early lactation cows. Studies have consistently shown more than 80% of the cows eat feed when new batch of feed is fed, thus showing the importance of providing 24-30 inches of bunkspace per cow.

**Daily Routine #3:** Cows only spend about 20 minutes daily drinking water.

**Implications:** Milking dairy cows can drink 25 to 50 gallons of water daily in a very short time period depending on their production and environmental temperature. Cows drink at the rate of 1.2 gallons per minute. Thus, water reserve and flow rate are very important. Milk is 87% water and water intake drives feed intake and milk production. Waterers should be located close to feed and return alleys from the milking parlor. In addition, waterers should be cleaned out weekly.

**Daily Routine #4:** Cows spend about 8 hours daily chewing their cuds- of which twothirds of that time is while they are resting.

**Implications:** Cows need a comfortable environment to lie down and chew their cuds. Generally, we expect to see 60 to 70% of the cows chewing their cuds while resting. Saliva is secreted when cows chew their cuds. Saliva contains a natural antacid which helps buffer the contents of the rumen or cow's first compartment of the stomach. When

cows are fed adequate amounts of effective fiber to stimulate cud chewing, 5 to 6 lbs of saliva help buffer the rumen contents. Proper buffering of the rumen allows cows to digest forages better, eat more feed, maintain normal butterfat tests, and prevent health problems such as lameness and displaced abomasum or twisted stomach.

**Daily Routine #5:** After taking into account time spent resting , eating, and drinking, approximately 2 to 3 hours is left in the day for other activities such as standing in the holding pen waiting to be milked.

**Implications:** To maximize the amount of time cows spend on productive activities such as resting and eating, it is important to minimize the amount of time cows spend waiting to be milked. Thus the root of the recommendation that cows are placed in groups to be milked within 1 to 1 and half hours per milking.