

## Common Questions and Answers about Dairy Cows and Milk Production



### ANIMAL CARE and HOUSING

#### **Q. How are dairy cows housed?**

A. Cow comfort is a top priority on dairy farms. Comfortable, well cared for cows produce high-quality, wholesome milk and live a longer life with less stress. Well-managed dairy farms provide cows clean, soft bedding/beds and access to food and water 24-hours a day. Freestall housing, which is common today, provides a cooler, mud free environment in summer, and warm, dry, mud free shelter in winter. Curtain walls that roll up and down are used to improve/maximize ventilation in warmer months. Cows are free to move about to eat, drink and rest whenever they like- 24 hours/day. Individual freestalls provide space for each cow and many farms use sand bedding which is very soft and reduces bacteria growth.

#### **Q. Who oversees that farms appropriately care for their animals?**

A. The National Dairy FARM Animal Care program initiated by the National Milk Producers Federation titled "Farmers Assuring Responsible Management" (FARM) has established best practices for dairy animal care in the U.S. This FARM program sets guidelines for all aspects of dairy animal care. Participation in the program includes 98% of the milk produced in the U.S. Farms are routinely evaluated to ensure they are following the animal care guidelines. The FARM program cultivates a culture of continuous improvement on U.S. dairies.

### FOOD SAFETY and MILK QUALITY

#### **Q. How do we know milk is high quality and safe to drink?**

A. High-quality milk begins with taking good care of cows. All milk that is sold for food is checked for quality, freshness, and bacterial contamination and screened for antibiotics. Farmers are paid based on the quality of the milk they sell and milk that does not meet quality standards cannot be sold.

#### **Q. What if a cow gets sick?**

A. All farms work closely with their veterinarian to develop a preventive wellness program including vaccinations, feeding and other protocols to keep the animals on the farm healthy. Good dairy farmers monitor individual cow health daily, tracking cows with computer programs to know their history and which cows need attention. However, just like people, dairy animals can get sick. When this happens, a sick cow or calf gets examined by either the dairy producer or one of the employees. If the illness is severe enough, a veterinarian will examine the animal or be consulted. Sometimes it's necessary to treat cows with antibiotics when they are ill, just as humans sometimes need medication when they are sick. A cow being treated with antibiotics is separated from the milking herd and/or milked separately so that her milk does not go into the milk tank. Antibiotics are used for specific illnesses and must be approved by FDA with withholding times before milk or meat can be marketed. Each load of milk shipped from a farm is sampled before it is loaded on a milk truck. Each truck is screened at milk plants for antibiotics. If there is a positive test, samples from each farm are tested, the truckload of milk is dumped and the responsible farmer pays for the entire load.

#### **Q. Are dairy farms regulated?**

A. Milk is one of the most highly regulated foods. From the dairy farm to the table, milk goes through strict quality controls to ensure freshness, purity and great taste. Dairy farms are inspected two times a year by the Michigan Department of Agriculture and Rural Development

(MDARD). Inspections focus on milk sanitation including the milking system and handling equipment, fly control and cow cleanliness. Milk cooperative field personal focus on helping producers work on milk quality issues and training employees who do the milking.

**Q. Are there harmful hormones in milk?**

A. Hormones are naturally present in many foods of plant or animal origin. All milk naturally contains very low amounts of hormones. The level of hormones in milk are essentially the same in milk labeled “from cows not supplemented with synthetic hormones”, “organic”, or “regular” which may include milk from cows supplemented with synthetic bovine growth hormone. There are no known differences in milk with these labels in terms of quality, safety and nutrition.

**ENVIRONMENTAL IMPACT and SUSTAINABILITY**

**Q. What impact do dairy cows have on the environment in the U.S.?**

A. The current EPA estimates for greenhouse gas emissions by sector are 9% for agriculture, with less than half coming from animal agriculture; electricity 28%, transportation 28%, industry 22%, commercial and residential 11%. <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#agriculture>. Increased efficiency in milk production reduces the overall carbon footprint of milk production and land needed. Comparing today’s production methods and technology with 1950’s, we would have to increase the dairy cow population in 2015 of 9.3 million to 39.3 million (+30M) and beef cows from 29.3 million to 44.6 million (+15.3M) to produce the same amount of milk and meat using 1950’s methods and technology (data from USDA/NASS).

**Q. How does milk compare to other drinks on environmental impact?**

A. Most studies show the total green house gas emissions (GHG) from various production processes. However, once you compute the nutrient value of drinks divided by the costs, in this case GHG emissions, you get a more meaningful comparison. This benefit/cost ratio ranks drinks in this order: milk, orange juice, soy drink, oat drink, red wine, soda, beer and mineral water. (Data source: Smedman et al. Food & Nutrition Research, 2010;54:5170)

**Q. Why milk cows?**

A. Cows can convert many feedstuffs into high quality protein and fats while providing a fairly complete food. Cows are herbivores built to consume many forages and grains. The rumen (1<sup>st</sup> stomach of a cow) allows cows to digest plants and plant by-products we can’t. For example, the whole corn plant and cottonseeds. Corn is a grass selected over centuries for larger seeds or kernels that contain starch, which is a good energy source. The diet of a good milk-producing cow can’t be balanced on grass or forages alone. Grains and by-products are added to provide additional energy, protein, fiber and other nutrients. By-products come from human use of grains and other plants that would be wasted if not fed to animals. Examples are corn or other grains left over from the ethanol and brewery industries and cottonseeds from cotton production. The mammary gland takes nutrients from the cow’s circulating blood to make milk containing high quality proteins, fats, carbohydrates, vitamins and minerals. It is considered nature’s most complete food. *“The mammary gland ranks second only to the photosynthesis cell as a factor in sustaining mammalian life”*- S. Patton, Scientific American, 1969.

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