PROGRESSIVE DAIRYMAN

Increase efficiency to reduce your carbon footprint

Written by Nyles Peterson

You already know that managing your herd to produce more milk per cow can make you more money. But did you know that it is also an excellent way to decrease the carbon footprint of your dairy? The bottom line (when it comes to the environment) is that using fewer resources to produce more milk will improve your herd's carbon footprint.

By increasing production per cow, the dairy industry as a whole has made excellent progress. Based on Capper et al., the number of dairy cows in the United States has dropped from 25.6 million in 1944 to 9.2 million cows in 2007. Even with this drop in cow numbers, milk production increased from 117 billion pounds in 1944 to 186 billion pounds in 2007.

Using pounds of carbon dioxide per gallon of milk as the carbon footprint value, the dairy industry's footprint dropped from 31 pounds per gallon of milk in 1944 to 12 pounds per gallon in 2007. This represents a 41 percent decrease in the total carbon footprint for U.S. milk production.

In addition to optimizing milk yields, you can lower your herd's carbon footprint by working to improve genetics, nutrition, herd health and animal comfort. For example, by feeding more concentrates, you can reduce your dairy's carbon footprint.

Methane is produced during digestion of feed by the microbes in the rumen. The amount of methane produced is mainly dependent on the diet. A high- starch diet will produce less methane than a high-forage diet.

Efficiency also results in reduction in resource use and waste output. For example, by taking measures to reduce the amount of fossil fuel you use to produce milk on your dairy, you will reduce its carbon footprint and probably reduce the cost of milk production. Modern dairy systems only use 10 percent of the land, 23 percent of the feedstuffs and 35 percent of the water that was required to produce the same amount of milk in 1944.

Similarly, in 2007, dairy farming produced only 24 percent of the manure and 43 percent of the methane output per gallon of milk compared to farming in 1944. The dairy industry as a whole deserves a pat on the back, and by continuing to focus on these areas, you can reduce your carbon footprint as well as improve your production per cow. ***PD***

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