



A RESOURCE MANUAL produced by the Innovation Center for U.S. Dairy can serve as our guide to reduce greenhouse gas emissions and improve upon animal nutrition and health.

cess, you will likely get new ideas for improving your dairy operation. Could you reduce the grind size of your corn grain to improve starch digestion or raise milk yield and reduce methane per pound of milk produced? You might also talk to your nutritionist about feed additives for reducing methane.

You could consider mixing another TMR so that you can better target feed nutrients to your cows. You could also reduce overcrowding in your barn, enhancing production per cow and reducing cow numbers to lower farm methane losses.

You have great facilities and great nutrition for your lactating cows. The high milk production of your mature cows proves it! But first-calf heifers freshen at 24 months without the size that you want or the production.

Even though you know that you need more milk out of your first-calf heifers, have you considered the costs associated with feeding and housing heifers for 24 instead of 22 months? That's two extra months with no production. What about the unnecessary methane being added to your carbon footprint during those two extra months of growth? There are also possible long-term productivity benefits from accelerated calf growth that you might be missing out on. Higher productivity will also reduce methane emissions per unit of milk production.

Look to the manual to provide you with new ideas on many aspects of calf and heifer management and nutrition. Two interesting articles that I recently consulted were "Housing factors to optimize respiratory health of calves in naturally ventilated calf barns in winter" and "Calf diseases and prevention."

You have successfully reduced metabolic disease in your transition cows over the last 10 years. Now you are wondering if you could get more milk by further reducing subclinical issues and improving dry matter intake both in freshen and fresh cows.

You know that higher intakes and milk in fresh cows will improve lactation performance and profit. Also, remember that higher production reduces methane emissions per unit of milk. Again, you can turn to the resource guide to provide you with a checklist of things to consider for improving your cows' transition period. Check out papers such as "Cow comfort drives transition success" and "New technologies in precision dairy management."

Most dairy producers have worked to be good environmentalists. But, if we are honest with ourselves, there are many ways we could reduce methane emissions a bit more. It's the right thing to do and the profitable thing to do. If we all give a little more consideration to methane reduction, the dairy industry's goal of reducing greenhouse gasses 25 percent by 2020 is attainable! 🐄

Methane and margins are pieces of the same puzzle

Reducing greenhouse gases while improving farm margins is a "win-win" for dairy producers.

by Mary Beth de Ondarza

WE ALL know that it would be great for the environment if we reduced methane emissions from our cows. Many of us also know that there is an industry-wide goal, driven by the Innovation Center for U.S. Dairy, to reduce the dairy industry's greenhouse gas emissions 25 percent by 2020.



DE ONDARZA

The author has a dairy nutrition consulting business, Paradox Nutrition, LLC, in West Chazy, N.Y.

During our busy days, steps to reduce methane emissions may not be top of mind. The good news is that many of the strategies that decrease methane output from cows can also improve farm profitability!

Recently, the Innovation Center for U.S. Dairy released "Considerations and resources on feed and animal management" as an online reference manual. This report is intended to quickly provide practical ideas based on the latest science to help farm profitability and the environment at the same time. Topics include nutrition, forages and concentrate feeds, as well as specifics on calf, heifer, transition, and lactating cow nutrition and management.

Rather than Googling and coming up with 1,000 references that you may or may not trust, this 65-page manual provides online scientific references via internet links, making it fast

and easy to get in-depth information which has been reviewed and approved by experts.

It can be your resource

Here are a few example situations for using this resource:

At a local school board meeting, you are approached by a woman from the community who is not involved in agriculture. The environment is on her mind, and she is concerned about the methane that your 1,000 cows are belching out. Rather than ignore her, you see this as an opportunity to promote the dairy industry and work toward being an even better dairy producer, reducing environmental waste and improving profitability.

First, invite her to your farm and personally show her your cows and facilities, emphasizing cow comfort, good nutrition and excellent production. Take her to your office, and show her your forage analyses and ration nutrient reports. Use Chapter 1 of the reference manual to help explain how precision feeding helps you reduce methane waste as well as reduce your feed expenses. Carefully analyzing feeds and forages, using advanced nutrition models and growing high-quality forages all can lower methane production per unit of milk produced on your farm.

This report will help you explain what you probably already know to a person who knows little about dairy cows. Then, you can send her home with a copy of the *Journal of Dairy Science* article, "Mitigation of enteric methane emissions through improving efficiency of energy utilization and productivity in lactating dairy cows," which is referenced and linked to the resource manual.

At the same time, by going through this pro-



The Innovation Center for U.S. Dairy's online reference manual is available at http://www.usdairy.com/sustainability/for_farmers.