

IMPROVING FEED EFFICIENCY

Higher-producing cows typically emit less methane per unit of milk than lower-producing cows. Talk to your dairy nutrition advisor to create a balanced ration to maximize milk production potential. To further maximize feed efficiency, work with a genotype program provider to conduct genetic evaluations for feed efficiency which can help reduce feed costs, enhance herd productivity and increase farm profitability.

Implementation Tips

- Consult a dairy nutrition advisor to balance rations.
- Promote good feeding behavior and optimal rumination by ensuring good ventilation, cow comfort and homogeneous ration mixing.
- Practice feed bunk management to maximize feed intake.
- Harvest quality forages and store them well.
- Work with a genotype program provider and develop a genetics strategy that evaluates feed efficiency traits.
- Monitor herd progress through monthly measurement and testing of feed efficiency.

Resources

- **Factsheet:** Livestock Management Practices to Mitigate Greenhouse Gases, proAction Environment Resources, Dairy Farmers of Canada (dfc-plc.info/IMFE1)
- **Webpage:** Introducing Feed Efficiency, Lactanet (dfc-plc.info/IMFE2)
- **Booklet:** Understanding Forage Quality, American Farm Bureau Federation (dfc-plc.info/IMFE3)
- **Research study:** Dutreuil, M., Wattiaux, M., Hardie, C.A., Cabrera, V.E., 2014. Feeding strategies and manure management for cost-effective mitigation of greenhouse gas emissions from dairy farms in Wisconsin. Journal of Dairy Science 97, 5904–5917. (dfc-plc.info/IMFE4)
- **Research study:** Lorenz, H., Reinsch, T., Hess, S., Taube, F., 2019. Is low-input dairy farming more climate friendly? A meta-analysis of the carbon footprints of different production systems. Journal of Cleaner Production 211, 161–170. (dfc-plc.info/IMFE5)

Benefits



Reduced GHG emissions



Improved production efficiency



Estimated return on investment
High



On-farm emission mitigation potential +++

“We feed our cows with a self-propelled feed wagon that we have purchased with an NIR unit which allows for continuous adaptation to feed dry matter variance and nutritional quality variance. This feed wagon allows for notably less feed shrink meaning less wasted feed, less fuel consumption due to the efficiency of the machine, and a more stable diet for our cows. The more stable diet results in more consistent, and I believe higher, production because changes in feed typically requires the animal to adapt to these changes, alters the targeted ideal diet, and therefore hampers her ability to produce most effectively. We are also working with Lactanet to evaluate the genotypes and phenotypes of dairy animals in order to breed more feed-efficient animals – allowing for similar production to other animals but with less feed. This has an impact on the environment because we will need to harvest less feed due to these animals eating less. We can also expect that there will be less manure produced. Also, because the animals feed intake is lower per unit of production, we will have less methane produced per animal.”

— JP, a dairy farmer in Alberta