# OPTIMIZING ANIMAL HEALTH

You are already taking steps in optimizing animal health, for example through proAction. An increased focus on herd health for the purpose of reducing GHG emissions includes practices that optimize milk production at the herd level over time, such as cattle health management, herd longevity and reproductive management. Having sick animals increases medication costs, reduces milk production and therefore production efficiency. Continuously improving production efficiency will reduce costs of production and GHG emissions.

## Benefits

- Reduced GHG emissions
- Improved production efficiency
- Increased resiliency to the effects of climate change

**Estimated return on investment**
High

**On-farm emission mitigation potential ++**

## Implementation Tips

- Conduct regular herd health checks, keep detailed health records and review them regularly with a vet to identify trends and opportunities for improvement.
- Prevent disease introduction and spread through biosecurity protocols.
- Work with a vet to develop disease and treatment protocols (e.g., mastitis, lameness).
- Plan for replacement animals based on health performance, reproduction and culling rate.
- Track, evaluate and improve reproductive management performance, such as pregnancy rates.
- Optimize the transition of cows after calving to reduce metabolic problems.
- Optimize colostrum management to facilitate the transfer of immunity to calves.

## Resources

- **Factsheets:** proAction Animal Care Resources, Dairy Farmers of Canada (dfc-plc.info/OAH1)
- **Webpage:** Milk Recording & Analysis, Lactanet (dfc-plc.info/OAH2)
- **Webpage:** Herd Sustainability Index, Lactanet (dfc-plc.info/OAH3)
- **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/OAH4)

## CATTLE HEALTH POTENTIAL FOR REDUCING GHG EMISSIONS

A 2019 study by the Global Research Alliance explored the effect of proactive animal health management, using Animal Health Improvement Measures (AHIM) on GHG emissions on dairy farms in Chile, Kenya and the United Kingdom (UK). They found that implementing AHIM is likely to offer a reduction in GHG emissions as well as a significant return on investment at the individual farm level. The following chart shows the potential reductions in GHG emissions intensity for the average and bottom 10% of herds in the UK, whose production systems are most similar to Canada's.

| Condition | Potential reductions in GHG intensity (UK) | |
|---|---|---|
| | Average herd | Bottom 10% of herds |
| BVD | 4% | 11% |
| Mastitis | 6% | 12% |
| Infertility | 7% | 16% |

> *Herd genetics and animal health are priorities on our farm. We do genomic tests to select replacement animals. This leads to an increase in the cows' longevity and thus a decrease in the number of replacement animals needed. In addition, our cows wear collars with movement and chewing detection, which helps in health monitoring and heat detection.*
>
> — Gabriel, a dairy farmer in Quebec