

## Palm Supplement in Animal Feed

#### Palm Fat Supplements and Cow Feed: What Are the Facts?

Recent attention has been raised in the media regarding the use of palm fat derived supplements in cow feed and the impact this may have on the properties of butter, particularly as related to its firmness. Below is some information to answer frequently asked questions on this topic.

# Dairy Farmers of Canada has released a statement asking dairy farmers to find alternatives to palm supplement, does SaskMilk support this?

Yes, SaskMilk and Saskatchewan's dairy farmers, along with all other dairy farmers across the country, are members of Dairy Farmers of Canada. As such, as a member of the group that makes up our national organization, we support the statement released by DFC earlier today.

#### Do Saskatchewan's dairy farmers use palm oil? How much do they use?

Some dairy farmers in the province use palm supplement, which is a by-product of palm oil production (palm oil is found in nearly 50% of the products on grocery store shelves including everything from pizza, doughnuts and chocolate, to deodorant, shampoo, toothpaste and lipstick).

Palm supplement typically comes in pellet form and its use is determined by nutritionists, veterinarians, and dairy farmers to ensure that the energy needs of dairy cows are being met. When supplements of palm fats are given to cows, the amount typically provided in their feed is small (ie. if a cow eats 35 kgs of feed per day, about 200-300 grams of that would be palm supplement).

The use of palm supplement in dairy feed is not new and has been used all over the world for decades. The Animal Nutrition Association of Canada notes that the use of palm fat in dairy feed is a safe ingredient, and it is also approved for use by the Canadian Food Inspection Agency.

#### What do cows eat?

Cows' diets can differ throughout the country, based on seasonality and regional differences in soil conditions and climate. While farmers grow the majority of the crops they feed their cows, a number of common feeds like flax, canola, corn, and other plants have been used for decades in a targeted way to ensure cows are meeting their energy requirements. Exact cow feed rations are determined at the farm level in consultation with veterinarians and animal nutrition experts. Palm products, including those derived from palm oil, are sometimes added to dairy cows' rations in limited amounts to increase the energy density of cow diets if needed. Dairy farmers in other countries such as the United States, the United Kingdom, New Zealand and Australia also use this supplement.

### Is there palm oil in butter or in other dairy products?

There is no palm oil in butter or in any other dairy products. Regulations in Canada mandate that all ingredients in dairy products be listed on the label, this has not changed. Palm supplements, which are used on some dairy farms in animal feed, have a very limited impact on the palmitic fatty acid (a naturally occurring fatty acid and different than palm oil & palm supplement) profile of cows milk. When supplements of palm fats are given to cows in Canada, the amount typically provided in their feed is small. It is estimated that the increase in the palmitic fatty acid linked to this feeding practice is less than 3%. To put that in perspective, milk coming from cows is about 4-4.5% fat (it varies depending on diets, time of year, genetics, etc.). Of that 4-4.5% fat, naturally occurring palmitic fatty acid is 30% of the fat, so the 3% change to the palmitic fatty acid would be going from 30% of the fat to 33% of the fat.

#### My butter seems harder, why is that?

The cause of possibly harder butter is currently undetermined, however, according to anecdotal reports seen in the media some consumers see it as an issue. Variances in butter are expected due to seasonal changes and environment and possibly many other processing factors along the way to becoming butter (casein additives, cream cooling strategy, treating cream with ozone, acidification, addition of low molecular weight fatty acids, among others) but more research is required to identify the true cause of harder butter. Recent media has suggested that palm supplement is to blame, however, this is not backed by research and remains undetermined. It also is important to note that palm supplement has been used in cow feed for decades, which would not align with the reports of only recently harder butter.

#### Palm oil is bad for human health, why would dairy farmers use it?

Palm supplement, a derivative of palm oil, is fed in small amounts in some instances to cows. The addition of this supplement has a limited impact on the palmitic fatty acid profile of their milk. Palmitic fatty acid is a naturally occurring part of the fat of many plants and animals, and different from palm supplement and palm oil. All milk sold in Canada is nutritious and safe to consume and is subject to Canada's rigorous health and safety standards. Overall, milk plays an incredibly beneficial role towards our overall health and nutrition. One serving of milk contains 15 essential nutrients, high in calcium and 6 of the 8 nutrients most Canadians are lacking in their diet.

# Palm oil production is destructive to the environment and our planet, it should not be used in the dairy industry.

Dairy farmers are aware of the concerns raised by consumers regarding the environmental degradation, habitat loss for endangered species, and human rights concerns with the production of palm oil. Even though the use of palm supplement in animal feed on dairy farms utilizes the by products of palm oil production, and not palm oil itself, Dairy Farmers of Canada is asking all dairy farmers in the country to find alternatives to palm supplement use.

#### What are dairy farmers doing to respond?

Dairy Farmers of Canada is striking a Working Group comprised of stakeholders and experts to assess current literature, gaps in data, and look into issues that have been raised by consumers. A diverse range of stakeholders will be invited to participate, with representation from dairy farmers, processors, internal and external experts. We will also seek the views of consumers as part of this exercise. While this Working Group completes its work, DFC has requested that all dairy farmers in Canada find alternatives to palm supplement use on their farms. In addition, a number of research initiatives are exploring alternatives to palm oil in the dairy industry.

### References

- 1. Canadian Food Inspection Agency. Approved Feed Ingredients. https://inspection.canada.ca/animal-health/livestock-feeds/approved-ingredients/eng/1322975007194/1322975281243. Accessed March 15, 2021.
- 2. Daniel Lefebvre, Chief Operating Officer, Lactanet, Canadian Network for Dairy Excellence, personal communication.
- 3. Canadian Food Inspection Agency. Introduction Regulation of Livestock Feed in Canada. https://www.inspection.gc.ca/animal-health/livestock-feeds/regulatory-guidance/rg-1/introduction/eng/1493737712622/1493737821272. Accessed March 15, 2021.
- 4. Innis SM. Palmitic Acid in Early Human Development. Crit Rev Food Sci Nutr 2016; doi: 10.1080/10408398.2015.1018045. https://pubmed.ncbi.nlm.nih.gov/25764297/
- 5. Canadian Nutrient File. https://food-nutrition.canada.ca/cnf-fce/index-eng.jsp. Accessed March 15, 2021.
- 6. Hanus O et al. Role of fatty acids in milk fat and the Influence of selected factors on their variability—a review. Molecules 2018; https://doi.org/10.3390/molecules23071636.