

## BACKGROUND

In Canada, 58% of the food we produce is wasted<sup>1</sup>. Food loss and waste is a problem that needs to be examined and tackled at every link in the supply chain, from producers and processors to retailers and consumers. Reducing food loss and waste can help save money, improve food security, support efficiency in the agriculture and food sector, and significantly reduce greenhouse gas (GHG) emissions. In Canada, emissions from waste represents **the third largest source of methane**, after fossil fuels and agriculture<sup>2</sup>. Beef cattle play an important role in diverting by-products and food waste, upcycling it into high-quality protein for humans.

## KEY MESSAGES

- **Cattle play a key role in combating food waste in Canada by transforming products humans cannot or will not eat into a highly nutritious protein for humans - beef<sup>3</sup>.**
- Feedlots are an effective means of transforming the environmental problem of food loss and waste into an inexpensive and highly nutritious feed resource for beef cattle<sup>3</sup>.
- Growing crops for human consumption leads to the production of crop by-products. Examples include canola meal, soybean hulls or wheat chaff. These products cannot be eaten by humans and would be left to decompose in a landfill if they were not upcycled into beef by cattle.
- Crops damaged by weather or deemed unsuitable for human consumption can be fed to cattle, avoiding waste.
- The Canadian Food Inspection Agency (CFIA) evaluates and approves livestock feeds and ingredients under the Feeds Act and regulations to ensure all feeds are safe for livestock, for humans, and for the environment.
- **Cattle do not compete with people for food, they make use of what is left.** A global study showed that 86% of livestock feed is not suitable for human consumption<sup>4</sup>.

## WHAT IS THE DIFFERENCE BETWEEN FOOD LOSS AND FOOD WASTE?

- **Food waste** happens in the store, the restaurant, or the home.
- **Food loss** occurs during production, storage and processing, long before it ever reaches the store, restaurant or home. The definition of food loss is incredibly broad. Crops that get damaged by weather and wheat that fails to meet milling standards for breadmaking are examples of on-farm food loss. By-products from food processing including broken potatoes, beet pulp, hulls, screenings, distillers' grains and oilseed meals are also considered food loss. **So, a considerable amount of "lost food" does reach human mouths – it just reaches humans indirectly, through meat, milk or eggs<sup>5</sup>.**

## WHY CAN FOOD BE DEEMED "UNSUITABLE" FOR RETAIL OR HUMAN CONSUMPTION?

- Crops may not make the grade for specific, or specialty uses. For example, 75% of the malt barley produced in Canada fails to meet the criteria necessary for beer making but can be fed to cattle<sup>6</sup>. Crops may be damaged by weather (drought, floods) or pests.
- Produce with cosmetic flaws not likely to be purchased by consumers. For example, grocery shoppers will not select an apple with a blemish, to divert waste this produce can be fed to cattle.
- Co-products or by-products can be fed to cattle like potato peelings from potato processing, pea cream from processing peas into pea burgers, and soybean hulls from the processing of soybean oil used in products like margarine<sup>4</sup>.

## WATCH HOW CATTLE COMBAT FOOD LOSS & WASTE

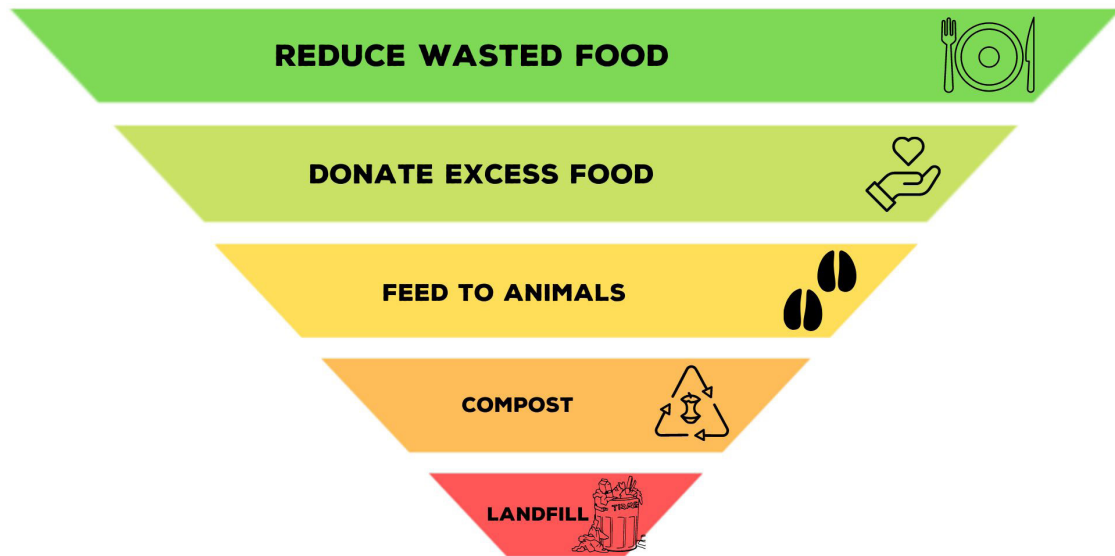


*"How do cattle combat food waste?"*



*"How do cattle combat food waste? Part 2"*

# FOOD RECOVERY HIERARCHY



## SOURCES OF FOOD WASTE



**WE ALL HAVE A PART TO PLAY IN MINIMIZING FOOD WASTE**

## REFERENCES

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5. Waste Not Want Not. BCRC blog post. <https://www.beefresearch.ca/blog/waste-not-want-not/> (Accessed March 24, 2023)
6. Ribeiro, G., and T. McAllister. 2016. Can the beef value of beer barley be rated with just one test? Available from <https://www.country-guide.ca/crops/cereals/barley/can-the-beef-value-of-beer-barley-be-rated-with-just-one-test/>