

# Organic Beef

## Overview:

- Beef producers use a variety of production approaches to provide consumers with the beef that they prefer. One of these approaches is organic agriculture.
- Canadian beef is safe and nutritious, whether it is produced organically or conventionally.
- Protection of the environment is a key focus for all beef production systems.

## Introduction:

To meet consumer preferences, Canadian beef is produced both organically and by conventional methods. While there are several differences in the way organic beef is produced, the beef produced by both organic and conventional producers is high quality, nutritious and safe.

Organic beef production must meet requirements set out in the National Standard for Organic Agriculture <sup>1</sup>.

Conventional and organic beef production have strong similarities. Regardless of the production method, (conventional or organic method) beef processing is federally regulated and inspected by either federal, provincial or municipal governments.

Both conventional and organic methods of farming provide consumers with high quality beef. Laboratory testing has not found any substantial nutritional difference between organically and conventionally produced food products <sup>2</sup>. While organic food is marketed as pure and healthy, conventionally produced foods are equally safe and nutritious because all beef is subject to the same rules of inspection, regulations and guidelines.

## The organic approach

Overall, organic beef production is very similar to conventional beef production. There are differences, however. Organic certification requires complete segregation from conventionally managed farms to uphold the integrity of organic production <sup>1</sup>.

## Living conditions

Both conventional and organic production methods are required to take into account the physiological and behavioural welfare of livestock. On both kinds of farms, cattle are allowed free movement as well as exposure to fresh air and natural daylight. They also have regular access to fresh water and high quality feedstuffs. Appropriate bedding and resting areas must also be provided.

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## Feed

Both methods of production require that the diet being fed to cattle be nutritionally balanced and of high quality to meet the nutritional requirements of the animal. However, organic livestock operations are designed to receive 100 per cent of their feedstuffs from organic sources.

Conventional producers are permitted to feed genetically modified crops that have been approved by the federal government for feeding to livestock. Organic production does not permit this type of feed.

In organic production, vitamins, trace elements and pure amino acids may be used at the discretion of the certification body.

## Livestock sources

Cattle destined for beef production in an organic operation must be born and raised in an organic production unit. Breeding livestock may be obtained from a non-organic operation but cannot exceed 10% of the total number of breeding livestock. In addition, any breeding livestock coming from non-organic sources cannot be labeled or marketed as organic and cannot be sold as organic breeding stock unless held for more than 12 months.

## Health

In both organic and conventional methods of producing beef, the use of biological, cultural and physical treatments may be used for treating diseases and health problems. In an organic production facility, vaccination and the therapeutic use of veterinary drugs is restricted. Vaccines are permitted where the targeted diseases are communicable to livestock and cannot be treated by other means. Organic producers may use antibiotics to treat ill animals. If an animal is treated with antibiotics for an illness, beef from this animal may still be considered “organic beef”. However, no products from the livestock will be labelled or marketed as certified organic, until at least double the permitted federal withdrawal period allowed for the treatment has been exceeded for the animal.

Conventional beef production permits the use of growth hormones and veterinary products that have been approved for that use by Health Canada, the same agency that approves medicines for humans. In organic production, the use of growth hormones is not allowed.

## Breeding

In both organic and conventional beef operations, it is recommended that breeds be selected for their suitability to their environment. The use of traditional mating is standard in both types of operations, although artificial insemination is permitted. Embryo transfer techniques, techniques involving genetically modified organisms (GMO) and reproductive hormones to trigger or synchronize estrus are not permitted in organic production. However, these methods are not commonly practiced in conventional beef production either. There are no genetically modified cattle in the Canadian beef herd.

## The beef production cycle

### The cow-calf farm

Whatever the production method, beef production is a cycle that starts with the cow-calf operation.

In a certified organic operation, calves must be certified as originating from organically raised stock. Aside from this requirement, however, the cow-calf phase is virtually identical in both organic and conventional production. In the cow-calf phase, cows are selected for their mothering ability, beef quality traits and other desirable traits.

Most calving takes place outdoors and the cows then graze on open pasture and the calves nurse until they reach a weight of approximately 500 to 600 pounds. At this stage, calves are weaned from their mothers.

In the organic operation, the pasture must be certified organic, that is, the fields must not be subjected to applications of chemical fertilizers or crop protection products. However, fertilizers and crop protection products are rarely used on pasture or forages even in conventional production.

### The backgrounding phase

After weaning, calves are over-wintered on hay-based diets until their weight increases to about 900 pounds. This process is known as backgrounding and is common to both conventional and organic production. During this phase, beef producers take care to provide feeding and bedding areas that are sheltered from harsh weather and that keep cattle comfortable and protected.

In a conventional operation, calves are vaccinated against disease and may be provided mineral supplements to maintain health. Organic beef may or may not be vaccinated and all feed rations must be organically grown.

### The feedlot operation

The only intensive part of beef production takes place during the 120 days prior to slaughter. Most conventionally produced cattle are transferred to a feedlot where they are fed grain-based diets. These grain rations help produce consistent, high-quality beef.

In an organic system, cattle may also be fed grain rations (although the grains must be certified organic). Most often, cattle in the organic system will remain on the same farm during this stage.

## Organic labelling and certification

In 1999, the Standards Council of Canada ratified the National Standard for Organic Agriculture. This standard sets out minimum conditions for the production, processing, packaging, and distribution of organic food products, including beef. The standard sets out criteria for the complete food cycle, from the seeding of crops to the final sale to the consumer.

In order for beef to be labelled as organic, it must meet all terms of the National Standard, as set out in Canada's Guide to Food Labelling and Advertising<sup>3</sup>, enforced by the Canadian Food Inspection Agency.

To provide additional assurance that organic beef is produced and marketed according to the standard, producers may have their farm operations certified by an accredited certifying body. Canada has approximately 46 such bodies. To become accredited, the certifying body must meet the ISO guidelines set out by the Standard Council of Canada. For example, they must inspect the farm and related facilities to ensure the National Standard is being met.

Under federal labelling regulations, beef that is produced under the supervision of an accredited certifying body will be labelled with the name or number of the independent certifying body that carried out the inspections.

## References

- <sup>1</sup> *National Standard for Organic Agriculture. Canadian General Standards Board Sales Centre Public Works and Government Services Canada, Hull, Quebec, K1A 1G6*
- <sup>2</sup> *Bodenmuller, Kurt. 2001 "Health –Relevant and Environmental Aspects of Different Farming Systems: Organic, Conventional and Genetic Engineering. Internutrition: Zurich Accessed via [www.internutrition.ch/in-news/mediainfo/med001120zus\\_f.html](http://www.internutrition.ch/in-news/mediainfo/med001120zus_f.html)*
- <sup>3</sup> *Canadian Food Inspection Agency  
**Guide to Food Labelling and Advertising – Section IV**  
Accessed via [www.inspection.gc.ca/english/fssa/labeti/guide/ch4ae.shtml#4.8](http://www.inspection.gc.ca/english/fssa/labeti/guide/ch4ae.shtml#4.8)*