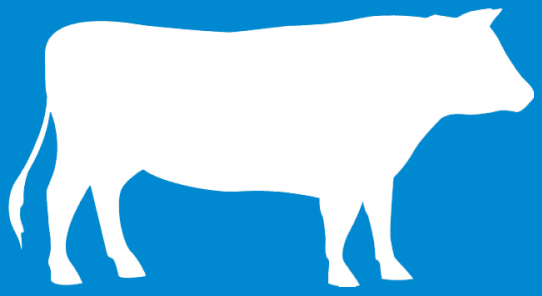
THINK BEEF.CA

#BEEFBELONGS

REGIONAL TOOLKIT



KEY MESSAGES

OVERARCHING RESPONSE PLAN MESSAGING

Beef belongs. As part of a balanced diet for Canadians, beef has an important role to play in the health of the Canadian population along with other foundational foods like fish, legumes, dairy, and fruits and vegetables. We live in a society that is overfed yet undernourished. There is no reason to reduce or eliminate beef. Beef is a nourishing food that is important for good health when eaten in balance with other naturally nutrient rich foods.

Canadians eat beef in moderate amounts. According to the latest government nutrition survey, Canadians eat between 3 to 4 servings of fresh red meat per week or 288 grams on average[1] – which works out to be 3 to 4 meals – a lunch and 2 dinners for example.

This amount is well below the 500-gram limit for cooked fresh red meat as recommended by the World Cancer Research Fund (WCRF).[2] Considering Canada's Food Guide advises two (2) servings of meat and alternatives a day for women, and three (3) servings a day for men, the amount of fresh red meat that we eat on average is well within both global and Canadian recommendations. A serving of cooked beef is 75 grams, about the size of your palm.

- **Canadians have already reduced meat consumption** in their diets and have increased calories derived from highly processed ready-to-eat foods – foods that tend to be calorie dense, nutrient poor. At less than 200 calories per serving, beef remains one of the most nutrient-dense foods available and belongs as part of a balanced healthy diet. **There is no reason to reduce or exclude beef (or meat) from a healthy diet.**
    - Many Canadians are undernourished yet overfed. Dietary trends show that obesity rates have soared while the percent of energy from foods naturally rich in high-quality protein such as milk, beef and eggs fell. Meanwhile, an increasing percentage of energy from highly processed, ready-to-eat foods has replaced energy from more nutritious, protein-rich food choices.[3]
    - Between 2004 and 2015, the daily consumption of fresh and processed red meat declined from 75 grams to 61 grams on average.[4] Canadians do not even consume one (1) full serving of red meat daily (one serving = 75 g cooked meat).
    - More than 56% of adolescent males, 48% of women 31-50 years of age and 69% of females older than 70 years of age are consuming less than the current recommended number of servings for meat and alternatives[5], putting these populations at risk of deficiencies for several key nutrients: protein, iron, zinc and vitamin B12.

1. As Canadians, we are fortunate to have a wide range of protein options. Meat (like beef) is among the most nutrient-rich quality protein sources available. Beef is one of the most efficient sources of a variety of key nutrients that some of the population is at risk of under-consuming.

- High-quality protein sources include red meat, poultry, fish, eggs and dairy – foods that contribute to overall diet quality.
  - Beef is one of the most nutrient dense foods we have, providing a variety of essential vitamins and minerals for a modest number of calories.
  - With a serving of beef that is the size of your palm, you get 26 grams of high quality protein at just 184 calories. To get the equivalent amount of protein from black beans, you would need to eat 2.5 servings, about 1 ¾ cups, at 420 calories.
  - Beef is typically eaten as a complete meal, not an isolated food. Therefore, eating beef fosters healthy meals and eating patterns that are recommended by Health Canada: dinners at the table with a plate filled with other whole fresh foods like vegetables, fruit and whole grains.
  - The many essential nutrients found in beef include: high-quality complete protein, all essential amino acids, iron and zinc – both in a form that is the easiest for the body to absorb – and several key nutrients such as riboflavin, niacin, selenium and vitamins B6 and B12.

2. According to Canada's Food Guide, healthy diets consist of whole, nutrient-rich foods like meat, fish, dairy, whole grains, fruits and vegetables, with fewer processed foods like chips and sugary drinks.

- In the 1980's dietary guidance focused on reducing total fat which resulted in individuals replacing fats in their diet with carbohydrates, particularly refined carbohydrates, a pattern which is associated with the current elevated rates of obesity and metabolic syndrome.[6]
- In 2012 to 2013, 31% of children and youth ages 5 to 17 years and 62% of adults ages 18 to 79 were overweight or obese.[7]
- Recent research commissioned by the Canadian Heart and Stroke Foundation shows that ultra-processed food consumption in Canada is alarmingly high, and continues to increase, accounting for **almost half** of our daily caloric intake. Ultra-processed foods provided 48% of the total daily energy intake[8], whereas fresh red meat contributes only 5% of total energy intake. What's most troubling is that children ages 9 to 13 get 57% of their calories from these energy-dense, nutritionally lacking, ultra-processed foods. [21]

3. When paired together, foods can produce greater health benefits, like increased iron absorption from vegetable, grain and pulse iron-sources when consumed along with meat.

- Food synergy is all about foods working together to produce greater health benefits than what's possible when eaten on their own.
  - A great example of this is iron. There are two types of iron in food: heme iron and non-heme iron. Meat, poultry and fish contain heme iron, while plant food sources of iron (beans, tofu, eggs, veggies, grains, etc.) contain non-heme iron. Heme iron is more easily absorbed than non-heme iron.
  - Known as "The Meat Factor", when meat and plant food sources of iron are eaten together, the absorption of non-heme iron from the plant foods is enhanced by **150%.**[9]

ENVIRONMENT

1. Canadian farmers and ranchers are leaders in environmental stewardship and sustainability. Canadians should be proud of the fact that beef production in this country has one of the lowest greenhouse gas footprints in the world, accounting for only 0.04% of the world's greenhouse gas (GHG) emmissions.[10]

- Raising beef cattle in Canada accounts for 2.4% of Canada's GHG emissions.[11,12] For some perspective, transportation in Canada accounts for 28% of Canada's total GHG emissions. On a global scale, GHG emissions from Canadian beef production accounts for 0.04% of global GHG emissions.
  - There is a commitment to further reduce greenhouse gas emissions with technology, innovation, and production efficiencies such as improvements in cattle feeds . The Canadian beef industry saw a 14% decline in greenhouse gas emissions per kg of beef produced from 1981 to 2011.[13]
  - The Canadian Cattleman's Association recognizes Canada's beef cattle producers each year with The Environmental Stewardship Award (TESA). The award is granted to leaders in stewardship who have made outstanding contributions to conservation practices. Each nominee exemplifies significant innovation and attention to a wide range of environmental stewardship aspects in their farm or ranch operation.

2. Cattle farming and ranching play an important role across the country in preserving grasslands and supporting healthy soils, biodiversity and the habitats of local wildlife.

- Unfortunately, 74% of Canada's native grasslands like the Prairies have been lost due to cultivation or development. Grazing cattle plays an essential role in preserving grasslands and improving grassland health and function. This includes enhancing soil carbon storage, biodiversity, wildlife habitat and migration, water filtration, and nutrient recycling.[14] Just as the bison kept grasslands healthy and viable for centuries, cattle grazing has the same effect.

- Much of the land that is used to raise cattle is not suitable for farming crops and vegetables. Thus, beef farming and ranching gives us the benefit of gaining nourishing food from land that is too rocky, hilly or dry for growing crops for food.[15, 16] In many places in Canada, raising cattle is the best and most environmentally beneficial use of the land.
- Only 9% of annual cropland is used for growing cattle feed in Canada.[17] Much of the crops fed to cattle come from foods that were intended for human use but were not deemed suitable. Cattle play an important role in reducing food waste by consuming crops and crop bi-products that can't be used as human food.
- As cattle in Canada are primarily raised on grass-based pasture and grasslands, 80% of their feed comes from grass-based forage over their lifetime.[18]
- Although cattle production uses 33% of Canada's agricultural land, it provides 68% of the Wildlife Habitat Capacity of all agricultural land in Canada (CRSB, 2016)
- Cattle ranchers and farmers work with conservation programs and groups to take steps to conserve wildlife and ecosystems (e.g. Cows and Fish, MultiSar, Ducks Unlimited).

3. Water is a precious resource and Canadian beef farmers and ranchers are committed to supporting responsible water use from field to table.

- In an effort to support beef ranching and farming today and for many generations to come, strong progress has been made and will continue to be made in advancing efficiency and sustainability when it comes to water use for cattle.
- A study conducted by the University of Manitoba and Agriculture and Agri-Food Canada (AAFC) assessed the water footprint of Canadian beef production over the period of 1981 to 2011 and found that the amount of water required to produce on kilogram of Canadian beef has decreased 17%.[19] The study looked at both "blue" water (surface + ground water) and "green" water (precipitation or rain water).
    - Blue water use in Canada in 2011 was 459 litres/kg of beef produced.
    - The decrease was even greater, at 20%, when looking only at blue water – which is arguably the most significant component of the beef production water footprint to focus on, because it represents decisions to use that water for a specific purpose.
    - Green water is a form of water use that those involved with cattle do not directly control. How much rain is produced and where it falls is controlled by natural climatic factors.
    - Remember, water cycles through the environment and does not disappear forever.

Evaluating the environmental impact of a food production system is complex with no clear food system having more positive or least negative effects.

- The same food will have a wide variety of different food production systems depending on where and how it is grown/raised

- There are positive and negative effects for each food production system. For example, as cattle are ruminants, they do contribute to GHG emissions. But the natural grasslands cattle use to graze play a significant role in sequestering carbon.
- The UN has identified 14 environmental areas of concern as Sustainable Development Goals. A broad literature review concludes that generally, only 3 of the 14 factors are considered in environmental impact assessments. (Ridoutt, et al.)
- A reduction in beef consumption with the purpose of reducing GHGs could have very significant unintended negative environmental impacts, including further loss of native grasslands and stored soil carbon due to farming. These impacts could outweigh any perceived gains in reducing Canada's GHG emissions.

FOUNDATIONAL FOODS, HEALTHY EATING PATTERNS & FOOD SKILLS

1. As a foundational food for Canadians, beef plays an important role in encouraging the preparation of balanced meals and healthy meal patterns. Home cooking (and enabling food skills) is key to ensuring this is possible.[20]

- It's the quality of our food choices that counts over time. A healthy diet is one that prioritizes whole, fresh foods: lots of fruits and vegetables, high fibre grains and lean, fresh proteins, referred to as 'foundational foods'. Healthy eating means choosing foundational foods most of the time. Discretionary, or treat foods, should be occasional.
- Raised in every province, beef has been a part of our Canadian food culture. Beef satisfies a crave-factor, is easy to prepare and represents a variety of different seasonal dishes and food traditions.
- Cooking with foundational foods like beef encourages a balanced healthy plate approach to meals: half the plate dedicated to vegetables and fruits, ¼ for whole grain sides and ¼ for high quality protein like beef.
- Beef is not usually a 'grab and run' type of meal. Eating at the table is the better meal pattern that beef encourages.
- Beef is actually one of the simplest foods to prepare, since it has a flavour that is bold enough to stand on its own without the support of complex sauces or seasonings. Simple salt and pepper prior to cooking is basically all that is required for beef to taste amazing. Try this experiment: Season beef short ribs all over with salt and pepper. Brown in a pan and add enough red wine or broth to just about cover the ribs. Cover the pan and slowly simmer for 2 to 3 hours until fork-tender. That's it. Easy and delicious.
- Canadians looking for meal inspiration, recipes and tips for cooking beef should visit ThinkBeef.ca

REFERENCES & SOURCES

[1] Canadian Community Health Surveys (Nutrition) 2004 and 2015

[2] A Closer Look at Red Meat, World Cancer Fund International, www.wcrf-uk.org/sites/default/files/closer-look-red-meat-fact-sheet.pdf

[3] The growing Canadian energy gap: more the can than the couch? Public Health Nutrition: 12(11), 2216–2224 https://www.ncbi.nlm.nih.gov/pubmed/19531279

[4] Canadian Community Health Surveys (Nutrition) 2004 and 2015

[5] Evidence Review for Dietary Guidance, Technical Report, 2015, Health Canada

[6] Ravnskov U, DiNicolantonio JJ, Harcombe Z, Kummerow FA, Okuyama H, Worm N. The questionable benefits of exchanging saturated fat with polyunsaturated fat. Mayo Clinic Proceedings 2014;89(4):451-53.

[7] Canadian Health Measures Survey: Household and physical measures data; October 2014, http://www.statcan.gc.ca/daily-quotidien/141029/dq141029c-eng.htm

[8] Fresh and Processed Meat Intake: A Canadian Perspective; November 2017, http://thinkbeef.ca/wp-content/uploads/2018/02/Fresh-and-Processed-Meat-Intake_TB.pdf

[9] Engelmann, M, Davidsson, L, Sandstrom, B, Walczyk, T, Hurrell, R, & Michaelsen, K. (1998). The influence of meat on non-heme iron absorption in infants. Pediatric Research, 43(6), 768-773.

[10] Government of Canada. (2016). National Inventory Report: Greenhouse Gas Sources and Sinks in Canada: 1990-2014; The Canadian Government's Submission to the UN Framework Convention on Climate Change. http://unfccc.int/national/reports/annexighginventories/nationalinventoriessubmissions/items/9492.php

[11] Legesse, G., Beauchemin, K. A., Ominski, K. H., McGeough, E. J., Kroebel, R., MacDonald, D., McAllister, T. A. (2015, December 23). Greenhouse gas emissions of Canadian beef production in 1981 as compared to 2011. Animal Production Science.

[12] Canadian Roundtable for Sustainable Beef. (2016). National Beef Sustainability Assessment and Summary Report. Calgary: https://crsb.ca/assets/Uploads/About-Us/Our-Work/NBSA/290ae9c611/NBSA_and_Strategy_summary_report_web1.pdf

[13] Legesse, G., Beauchemin, K. A., Ominski, K. H., McGeough, E. J., Kroebel, R., MacDonald, D., McAllister, T. A. (2015, December 23). Greenhouse gas emissions of Canadian beef production in 1981 as compared to 2011. Animal Production Science.

[14] Canadian Roundtable for Sustainable Beef. (2016). National Beef Sustainability Assessment and Summary Report. Calgary: https://crsb.ca/assets/Uploads/About-Us/Our-Work/NBSA/290ae9c611/NBSA_and_Strategy_summary_report_web1.pdf

[15] Canadian Roundtable for Sustainable Beef. (2016). National Beef Sustainability Assessment and Summary Report. Calgary: https://crsb.ca/assets/Uploads/About-Us/Our-Work/NBSA/290ae9c611/NBSA_and_Strategy_summary_report_web1.pdf

[16] Statistics Canada. Human Activity and the Environment: Annual Statistics 2009. Table 1.2. Global availability of agricultural and arable land, 2005. http://www.statcan.gc.ca/pub/16-201-x/2009000/t230-eng.htm

[17] Roussell MA et al. Beef in an Optimal Lean Diet Study: effects on lipids, lipoproteins, and apolipoproteins. Am J Clin Nutr, 2012; 95(1):9-16.

[18] Roussell MA et al. Beef in an Optimal Lean Diet Study: effects on lipids, lipoproteins, and apolipoproteins. Am J Clin Nutr, 2012; 95(1):9-16.

[19] Legesse, G., Cordeiro, M.R.C., Ominski, K.H., Beauchemin, K.A., Kroebel, R., McGeough, E.J., Pogue, S., McAllister, T. A. (2017, November) Water use intensity of Canadian beef production in 1981 as compared to 2011. Elsevier. Science of the Total Environment 619-620 (2018) 1030-1039

[20] Caraher, M. & Lang, T. 1999, 'Can't cook, won't cook: a review of cooking skills and their relevance to health promotion', International Journal of Health Promotion and Education, vol. 37, no. 3, pp. 89–100.

[21] Ultra-processed foods in Canada: consumption, impact on diet quality and policy implications, December 2017, Heart and Stroke Foundation of Canada

DINNER CONVERSATION Q & A'S

NUTRITIONAL TALK

WHAT TO SAY IF SOMEONE IS QUESTIONING THE NUTRITIONAL VALUE OF BEEF:

- Beef actually offers lots of vital nutrients in a very small package - for a portion the size of your palm, beef delivers a powerful package of iron, zinc and Vitamin B12.
- You generally don't eat steak by itself. A beef meal is usually paired with vegetables and grains as sides - a balanced meal. A beef meal with veggies and grains is a better dinner than a slice of pizza for example.
- Research shows that eating a high-quality protein such as beef will actually help you feel full longer, so it is less likely that you will want to snack after a meal.
- Did you know that when you pair meat with plant food sources of iron, such as beans or spinach, you actually increase the amount of iron your body can absorb from those plant food iron sources by 150%? It's called the meat factor – and it demonstrates why these foods are best eaten together, instead of choosing one or the other.

WHAT TO SAY IF SOMEONE SAYS WE NEED TO REDUCE OUR RED MEAT CONSUMPTION:

- Beef consumption has been declining since the 1970's, yet obesity has tripled in that time. According to the latest government survey, red meat consumption is down almost 20% since 2004.
- Many Canadians are actually overfed yet undernourished – close to 50% of our calories come from processed foods such as chips, candy or soda – causing us to miss out on foods that matter – like fruit, vegetables, dairy products, grains and meat.
- As red meat accounts for just 5% of our daily calories, it's unlikely that beef is the source of the obesity problem we face in Canada.
- Most Canadians do not overconsume meat. In fact, on average, Canadians consume less than 1 portion of fresh meat per day. Most notably, ***more than 56% of adolescent boys are consuming less than the recommended number of servings for meat and alternatives***, putting them at risk nutritionally. Health Canada recommends Canadians eat 2 servings of meat and alternates daily for women and 3 servings daily for men. The rally cry should be to reduce the amount of foods that we eat that offer little to no nutritional value.

WHAT TO SAY IF SOMEONE QUESTIONS WHETHER BEEF HAS A VALUABLE CONTRIBUTION TO MAKE TO EATING WELL:

- Beef offers many nutrients ESSENTIAL to health in a very compact package - meaning that you get a lot of nutrients for a modest amount of calories.

SOME QUICK STATS ON HOW BEEF COMPARES VERSUS OTHER PROTEIN FOODS:

- To get the same amount of protein from a piece of beef the size of your palm, you'd need to eat about a can of beans (19 oz/540 mL), or 2.5 servings (3/4 cup each). That's close to 2 cups of beans, at 420 calories - that's a lot of beans! And beef protein provides all the amino acids your body needs while vegetable protein sourced foods do not.
- By comparison, to get the same amount of the following nutrients that you find in a single 75 g serving of beef you would need to eat:
  - 6x the amount of salmon to get equivalent levels of iron
  - 7x the amount of chicken breast to get equivalent levels of vitamin B12
  - Almost one dozen (11) eggs to get equivalent levels of zinc
  - 7 tablespoons (3.5 servings) of peanut butter (at 644 calories) versus 184 calories for a single serving of beef (75 grams) to get the same amount of protein

ENVIRONMENTAL TALK

WHAT TO SAY TO SOMEONE WHO QUESTIONS THE SUSTAINABILITY OF CATTLE FARMING PRACTICES IN CANADA:

- Did you know that McDonald's selected Canada as the pilot country for its Global Sustainable Beef initiative?
- Raising cattle in Canada has one of the lowest greenhouse gas footprints in the world.
- Canadian beef farmers and ranchers are leaders in animal welfare and sustainability in agriculture; their livelihood depends on the cattle, land and water resources in their care and so they treat it as such.
- There are also Codes of Practice in place for raising cattle humanely. Unlike other forms of animal husbandry, cattle are raised outside on pasture or range for most of their lives, free to express their natural behaviors. Even in feedlots, cattle are comfortable together as this is their herd instinct.
- Did you know that each year, cattle ranchers and farmers honour those who are leaders in their conservation practices with The Environmental Stewardship Award (TESA).
- Canadian beef farmers are committed to adapting new technologies and practices that reduce their environmental footprint. The Canadian Roundtable for Sustainable Beef is a group open to stakeholders involved in Canada's beef industry and helps to measure and monitor efforts to improve.
- Conserving water and protecting creeks and streams from bank erosion and run-off are actually some of the key conservation efforts that beef farmers and ranchers do. In Ontario you often see Environmental Farm Plan signs out at the end of farm lane ways.

AND:

WHAT TO SAY WHEN SOMEONE SAYS EATING BEEF IS BAD FOR THE ENVIRONMENT:

- There are 14 environmental areas of concern that the UN identifies when assessing sustainability goals for the foods we grow and raise, but the media tends to focus mainly on Greenhouse gas emissions and water use. Beef has many environmental benefits that seem unheard of, such as the role it plays in preserving our native prairie grasslands.
- Ultimately, sustainability is a complex discussion, and the answer to which foods are more or less sustainable isn't black and white – we need to look at the whole picture.
- The production of any food has an environmental impact – but it's been found that changing our dietary food pattern to consume one food over another has no positive change on these impacts.

WHAT TO TELL SOMEONE WHO IS INTERESTED IN REDUCING THEIR ENVIRONMENTAL FOOTPRINT THROUGH THEIR EATING HABITS:

- Eat less: reduce your portion sizes, and the amount of food you eat on the whole
- Eat quality: choose foods that give you the most nutrients for the amount of food you eat
- Eat local: select foods that are in season and/or grown close to you so there's less transportation involved in getting it to your table
- Waste less: Canadians waste $3 billion worth of food each year – this means we incur the environmental cost to grow and raise the food, and then also dispose of it

TOUGH QUESTIONS AND ANSWERS

WHAT IS A 'PLANT-BASED' DIET – SHOULD I BE SWITCHING TO THAT?

Plant-based diets have certainly become trendy in recent years, but it's vital we remember the unique benefits that both animal and plant-based foods have to offer and how, ideally, they work better together. For example, adding just a small amount of meat to a bean-based meal can increase iron absorption from the beans by 150%. Beef is a super-efficient protein with iron that is easy to absorb, zinc and vitamin B12, a vitamin that is unique to animal foods.

Plant foods are great sources of dietary fibre which is critical for gut health.

OR:

Beef is a more nutrient-dense source of quality protein than plant-based protein foods. And beef's protein provides a complete set of the essential amino acids your body needs. Plant sources of protein do not.

OR:

ARE MEAT ALTERNATIVES AND PLANT-BASED PROTEINS A VIABLE SUBSTITUTE FOR MEAT?

We could all benefit by having more fruits and vegetables in our diet for sure. But we need to consider that each nourishing food has its own unique nutrition benefits – it's not a matter of one versus the other. Animal and plant-based proteins offer different nutrients and ideally, they should be eaten together.

ISN'T THE WORLD HEALTH ORGANIZATION ADVISING THAT WE STEER CLEAR OF MEAT?

No. The World Health Organization has said meat provides a number of essential nutrients and has a place in a healthy diet.

IS IT TRUE THAT EATING RED MEAT CAN CAUSE CANCER?

No single food can protect against or cause cancer. Choosing fresh meat over processed foods, eating foods in moderation, living a healthy active lifestyle with no smoking and limited alcohol -- these are the most important considerations for health and wellness.

I'VE HEARD THAT ON A GLOBAL PERSPECTIVE, RAISING LIVESTOCK CONTRIBUTES MORE GREENHOUSE GAS EMISSIONS THAN ALL OF THE WORLD'S TRANSPORTATION SYSTEMS COMBINED. IS THIS TRUE?

- Livestock production practices vary greatly around the world. Beef raised in Canada has one of the lowest greenhouse gas footprints in the world – accounting for much less than 1% of the world's greenhouse gas emissions at 0.04%.
- To compare, transportation in Canada contributes about 28% of Canada's total greenhouse gas emissions.

COMPARED TO OTHER PROTEIN SOURCES (BOTH ANIMAL- AND PLANT-BASED), ISN'T IT TRUE THAT BEEF HAS THE HIGHEST WATER CONSUMPTION FOOTPRINT?

You can't compare the environmental footprint of one protein to another; it's a complex topic to consider with no clear answers that one food is 'better' than the other when it comes down to environmental impacts and sustainability.

A recent study by The University of Manitoba found that the beef production in Canada is very efficient in terms of water use. The water that is used to raise cattle doesn't go away but gets recycled in natures water cycle.

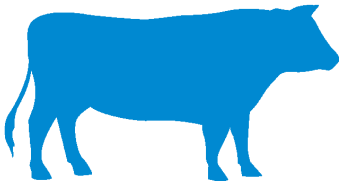
Beef farmers and ranchers are always looking to adopt new technologies the help reduce their water footprint.

THERE'S A PERCEPTION THAT LIVESTOCK LIVING CONDITIONS ARE INHUMANE, IS THIS TRUE? AND WHAT ARE CANADIAN FARMERS DOING ABOUT THIS?

- The key to producing the best quality of beef possible is for farmers to care for the cattle's health and comfort.
- There's also the Canada's National Farm Animal Care Council which creates best practices and guidelines for farmers and ranchers to follow.
- Farmers and Ranchers live in a community where your family practices get measured against each other constantly. Your reputation is what your business is built on.

WHY IS BEEF SO EXPENSIVE?

- Beef is one of natures most nutrient-dense foods so you get a powerful nutrient 'bang for the buck'. Compared to chicken breast for example, beef delivers 200% more iron, 600% more vitamin B12, and 700% more zinc.
- If there are less cattle available in the marketplace a shortage of supply will increase the price - the basic supply and demand equation.
- Beef is not one single price – there are a lot of other cuts available beyond say a tenderloin that are different price points per pound.
- Chicken is ready for market in 6 weeks time and raised indoors under controlled conditions. Cattle can take up to 2 years to get to market, so it is a longer term investment to raise cattle.
- Since cattle are raised out on pasture or rangeland, drought or other natural conditions can effect how many cattle a farmer or rancher can raise. Herd-size will be reduced if less feed is available. Since it takes 2 years for cattle to mature, it will take 2 years for the herd size to rebound.



For more **Nutrition Resources** go to
ThinkBeef.ca

or search for **'Nutrition'** at the

Canada Beef Marketing Library:
www.canadabeefmarketinglibrary.ca

THINK BEEF .CA