WORRIED ABOUT GREENHOUSE GAS EMISSIONS?

Putting BEEF in perspective

CANADIAN BEEF PRODUCTION ACCOUNTS FOR

only

0.04%

OF GLOBAL GHG EMISSIONS.

Worried about greenhouse gas emissions?

Putting beef in perspective

45% Energy: Combustion

4% Energy: Fugitive Sources*

8% Energy: Transport

28% Agriculture: All Other

7% Industry**

5.6% Agriculture: Beef Cattle

2.4% Agriculture: Waste

24%

GRASS AND PASTURELANDS ARE THE FOUNDATION OF THE CANADIAN CATTLE INDUSTRY.

They provide 80% of the feed used in Canadian beef production.

Grass and pasturelands remove greenhouse gases from the air and store them in the soil. On these lands cattle convert plants that humans can’t digest into high quality protein.

Removing cattle from these lands would put the land at risk for conversion to other land uses that could release more GHGs. Cultivating land can release up to 59% of carbon previously stored in the soil.

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A NEW FAO REPORT IN 2013 ATTRIBUTED 14.5% OF GLOBAL EMISSIONS TO LIVESTOCK.

IS IT TRUE THAT LIVESTOCK CREATE more GHG emissions THAN TRANSPORT?

A flawed 2006 Food and Agriculture Organization (FAO) report, “Livestock’s Long Shadow,” claimed that meat production was responsible for more emissions than global transportation.

GHG emissions from agriculture are a smaller proportion of total emissions in developed countries such as Canada, due to improved production efficiency and a significant reduction in land clearance for agriculture.

The contributors to Canada’s greenhouse gas emissions are: 1, 6

- 24% Agriculture: Beef Cattle
- 4% Waste
- 5.6% Agriculture: All Other
- 7% Industry**
- 8% Energy: Fugitive Sources*
- 28% Energy: Transport
- 45% Energy: Combustion

**Extracting, processing and delivery of fossil fuels
*Mining, smelting, refining and production industrial goods

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Billions of tonnes of carbon:

- 1.5 BILLION TONNES OF CARBON
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Grasslands around the world store nearly 30% of global soil carbon.

CO2 cycles down into pasturelands

CO2 emitted from industries

CO2 is used to plants to grow

Land used for beef cattle production in Canada is currently storing about 1.5 billion tonnes of carbon.

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For references and more information about the beef industry, please visit the consumer section of www.albertabeef.org.
WHY DO CATTLE PRODUCE METHANE?

CATTLE ARE ABLE TO DIGEST GRASS AND GRAINS THAT OTHER ANIMALS (INCLUDING PEOPLE) CANNOT.

WHICH GHGS are ASSOCIATED WITH CATTLE?

- Methane (CH₄) 
  - primarily produced through enteric fermentation
  - small amount produced by breakdown of manure
- Nitrous Oxide (N₂O) 
  - associated with the breakdown of manure and fertilization of crop and pasture land.
- Carbon Dioxide (CO₂) 
  - Some carbon dioxide is also produced through fuel use for farm machinery.

A SHRINKING environmental HOOFPRINT

BREAKDOWN OF GHG EMISSIONS IN beef production (PER KG LIVE WEIGHT PRODUCED)¹⁰

- 73% Digestion CH₄
- 15% Manure N₂O
- 5% Energy CO₂
- 4.7% Soil N₂O
- 2.25% Manure CH₄

IN CANADA, PRODUCING A KG OF BEEF ON-FARM IN 2011 RESULTED IN:

- 14% less CH₄
- 15% less N₂O
- 12% less CO₂

AND REQUIRED

- 29% fewer cattle
- 24% less land

THAN IT DID IN 1981¹²

DUE TO IMPROVED PRODUCTION AND FEED EFFICIENCIES, CROP YIELDS AND MANAGEMENT PRACTICES

WILL EATING less BEEF REDUCE CANADA’S GHG emissions? Given that Canadian beef production accounts for 2.4% of Canada’s GHG emissions, and 0.04% of global emissions¹¹, even if everyone in Canada STOPPED eating beef tomorrow, the effect on overall emissions would be MINIMAL compared to reducing reliance on FOSSIL FUELS.

Regardless of production system, CATTLE ARE AN IMPORTANT PART OF A HEALTHY ECOSYSTEM.

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