Beef Production in the Global Environment

The environment sustains itself through the continual use, reuse and recycling of the Earth's natural resources. The agriculture industry is by nature closely tied to the environment and thus has the potential to affect it in a number of ways. Cattle, like all living things, have a place in nature's cycle and contribute to its balance by consuming and returning nutrients to the their natural surroundings.

Deforestation

The Earth's forests provide many benefits to the environment, so their loss could have significant negative affects. Trees – known as the Earth's lungs – take in carbon dioxide and give off oxygen. Cutting down trees would reduce the supply of oxygen in the air we breathe. In addition, since more than half of the world's plant and animal species live in rain forests, deforestation could threaten the world's biodiversity.

Fortunately, deforestation has slowed significantly in the past decade. Global concern over the issue ignited the United Nations to help countries manage the major threats to the world's forests, which include road construction, domestic government policies and population pressure.

Does consuming beef in Canada lead to tropical deforestation?

Consuming less beef in Canada will have no impact on tropical deforestation. Canada is a net exporter of beef and little beef consumed in Canada is imported from countries with rain forests.

Does beef production in Canada have any effect on Canada's forests?

Beef production in Canada has no impact on Canadian forests. By the mid 1900s agriculture expansion in Canada had essentially ceased along with the conversion of forestland into farmland. In fact, focus has shifted to re-forestation efforts with the planting of windbreaks, shelterbelts and woodlots that improve crop and animal conditions on a wide range of agricultural operations, including beef farms. As a result of government policies, public interest and pollution control the Organization for Economic Cooperation and Development determined in 1995 that Canada's forests are secure.

Biodiversity

Biodiversity is the measure of a strong and healthy environment. More specifically, it is the number and variety of plants and animals successfully living together in an ecosystem (natural habitat). A diverse ecosystem is more sustainable and productive.

Does beef production have an impact on biodiversity?

Cattle have the same positive effect on biodiversity as the herds of bison that once roamed the prairies of western Canada. By grazing, cattle promote species diversity in grassland areas. Grazing curbs the growth of grasses that would otherwise be so dense, flowering plants and other species wouldn't be able to compete.

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Similarly, beef production on farms promotes species diversity, making agriculture more productive and sustainable. The use of manure as fertilizer enhances the soil's nutrient content, allowing other species to flourish.

What is the greatest threat to biodiversity?

Global population pressure is the greatest threat to biodiversity. This explains why the majority of Canada's endangered species are found in its most populated areas.

Greenhouse gases

Greenhouse gases are a natural part of Earth's atmosphere and are required to maintain the Earth's average temperature of 15° C. Without these gases the Earth would be frozen at -20° C. Greenhouse gases - including water vapour, carbon dioxide, methane and nitrous oxide - are essential to the environment's many natural processes.

The overproduction of greenhouse gases has led to concern in the past decade about the potential for global warming. The surplus production of these gases is primarily due to the burning of fossil fuels and other industrial activities.

Does beef production have an impact on the greenhouse effect?

Agriculture accounts for less than 10 per cent of Canada's greenhouse gas emissions, and beef production accounts for a fraction of that amount. In agriculture, unlike in industry, greenhouse gas emissions are the result of the animals' natural, biological processes rather than consumption of fossil fuel energy.