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## TO BE OR NOT TO BE

## **By Andy Cowan**

It may not be drawing such a long bow by comparing what we eat to the meaning of one of Shakespeare's most famous lines from Hamlet. As I understand it, Hamlet is reflecting on whether the pains in life are a better option than death. This article asks us to consider whether to be (or not to b) a meat-eater or meat-farmer.

I recently read two articles relating to this – one from The New York Times and the other from Forbes Magazine. The article in The New York Times was entitled "The Carnivore's Dilemma" and was written by Nicolette Hahn Niman. The author was inspired by an article in The Times of London with the headline that stated "Give Up Meat to Save the Planet". It was in the October 31, 2009 edition. The Forbes Magazine article entitled "Drop That Burger" was written by Matthew Herper and was printed in the November 30, 2009 edition.

The question is posed: Will eating meat warm the globe so much that life on earth as we know it is destroyed or wont it? Here is an outline of some of the issues presented in the two articles.

Food production is recognized as being a contributing factor in climate change and some believe that the farming of meat (especially beef) is closely linked to global warming.

Some arguments against meat production are very simplistic views used to promote a particular line of thought.

Niman raises grass-feed stock. This approach to farming creates substantially less greenhouse gasses when compared to feed-lotting with its associated treatment of waste and the de-forestation needed to produce crops to feed them.

It is important that we understand and examine the individual greenhouse gasses involved: carbon dioxide, methane and nitrous oxides.

Carbon dioxide makes up the majority of agriculture-related greenhouse emissions. In US farming generally, most carbon dioxide emissions come from fuel burned to operate vehicles and equipment. On the other hand, the world agricultural carbon emissions result primarily from the clearing of forested land for crop growing and livestock grazing.

Much of the de-forestation that takes place in Brazil is connected to soybean cultivation. These soybeans are shipped all over the world both for animal feed and human food. This transporting also causes emissions. Perhaps you have heard of food miles. As some vegetarians rely on soybean for protein, they could be contributing to emissions as well.

More natural farming methods contribute less to carbon dioxide emissions than more intensive farming methods. They keep their animals outdoors on pasture and do not use machinery to the same extent. Intensive farming styles require a lot of energy to run their mechanized systems which, in turn, generate emissions.

Methane is agriculture's second-largest greenhouse gas. Wetland rice production accounts for slightly under a third of the world's human-generated methane. In animal farming, much of the methane comes from manure storage ponds. In traditional farming situations, this isn't a problem.

Meat-eating critics point out that cattle are prime culprits in methane production. This issue is well understood. This effect can be reduced through better feed, the addition of certain proteins to diets or something as simple as cell grazing.

Livestock farming does contribute to nitrous oxide emissions even though they are only a small percentage of the total greenhouse gasses. The majority of farming's nitrous oxide emissions come about as result of manmade fertilizers.

We can make a choice. By avoiding industrially produced meat and dairy products, we can reduce our contribution to carbon dioxide emissions. By seeking out meat from animals raised outdoors on broad-acre farms, we are electing to reduce our contribution to methane emissions. By buying meat and dairy products from animals that were not fed on man-made fertilized crops, we can reduce nitrous oxide emissions.

Natural animal farming minimized greenhouse gasses and can actually benefit the environment. Good stock management can increase vegetation. It is essential for well-functioning eco-systems and biodiversity. The improved pastures can act as carbon sinks, reduce erosion and increase soil carbon. All this is accomplished while reducing the need for fertilizers.

It is generally agreed that less than half of food's total greenhouse impact has any connection to farms. Most of it comes from processing transportation, storage, retailing and food preparation.

Foods that are minimally processed, in season and locally grown, like those available at farmers' markets and backyard gardens, are generally the most climate-friendly. It is also important to consider how much food is totally wasted by being thrown away.

Nicolette Hahn Niman, a lawyer and livestock rancher, is the author of "Righteous Porkchop: Finding a Life and Good Food Beyond Factory Farms". Niman states that "None of us, whether we are vegan or omnivore, can entirely avoid foods that play a role in global warming. Singling out meat is misleading and unhelpful, especially since few people are likely to entirely abandon animal-based foods".

She finishes her article by saying that "there are numerous reasonable ways to reduce our individual contributions to climate change through our food choices. Because it takes more resources to produce meat and dairy than, say, fresh locally grown carrots, it's sensible to cut back on consumption of animal-based foods. More important, all eaters can lower their global warming contribution by following these simple rules: avoid processed foods and those from industrialized farms; reduce food waste; and buy local and in season."

The other side of the discussion is represented in an article entitled "Drop that Burger" written by Matthew Herper.

Herper outlines the beliefs of Pat Brown, an American academic, biochemist and biotech whiz from Stanford University, who believes that animal farming is an ecological disaster.

Over the next year and a half, Brown (who has been a vegetarian for 30 years) will try to put an end to animal farming and try to significantly reduce the world's consumption of cows, pigs and chickens.

Statistics referred to in the article are that livestock farming accounts for:

- 9% of human-caused carbon dioxide emissions;
- 37% of human-caused methane (most of it emanating from the animals' digestive systems) and
- 65% of human-caused nitrous oxide.

From a global warming perspective, methane and nitrous oxide are better at trapping heat than carbon dioxide. Brown believes that cows, chickens and other livestock farming enterprises have a larger greenhouse effect than all the cars, trucks and planes in the world.

The green groups are choosing animal husbandry as their new enemy. They are getter public awareness by enlisting the help of some high profile people who believe that future generations will bear the consequences of current farming practices. He feels that generations to come will be the ones to suffer if the world's population does not become more vegetarian in order to combat global warming.

Brown believes that the arguments for change need to be both economic and ethical.

He believes that growing crops to feed animals requires a lot more land, energy and fertilizer than growing them to feed people.

To achieve his aim of eliminating animal farming entirely, Brown suggests that food producers should be given an incentive to produce better tasting vegetable-based products. If that should occur, market forces should see a reduction in meat consumption.

Brown wants to convince food manufacturers that the costs of selling meat are too high and will continue to rise. This economic reality will make animal farming a lot less affordable. If you add to this the possibility of taxing greenhouse gasses produced on farms, then the cost of meat will rise.

Brown believes that it takes 1000 litres of water to produce one litre of milk. Raising the price of water will have the same effect as additional taxes on methane. That is to say, it will raise the price of meat.

The article concludes by stating "Until now little research has gone into making foods friendly to the environment. If you're a big food producer now, this is absolutely inevitable", he says. "You'd better start thinking ahead. You'd better seriously start investing and trying to find alternatives in order to stay alive".