**Guest Viewpoint**

# Meatless Diet Is Simple Antidote to Climate Change

By Dale Lugenbehl

The Register-Guard, January 4, 2016, page A-7.

The Paris climate talks have concluded with 200 nations adopting the target of holding global warming to less than 3.6 degrees Fahrenheit. No one has agreed to specific measures to achieve this, the agreement is not binding, and no one has agreed to do anything any sooner than 2020.

Additionally, all the talk has been about reducing carbon dioxide emissions by replacing fossil fuels with renewable energy, yet the International Energy Agency has reported that this will require complicated new technologies costing more than $18 trillion and taking at least 20 years — once we actually commit to doing it. And all the while, we approach tipping points beyond which we will not be able to avoid catastrophic climate change.

Nonetheless, there is great cause for optimism.

Already in existence is a method for turning climate change around quite rapidly. It is relatively simple and costs virtually nothing. No technological breakthrough is needed, no new laws need to be passed, and we can start immediately.

It’s simple: We can choose to eat plants instead of meat, dairy products and eggs. The difference it makes will shock you.

According to a United Nations report, animal agriculture (meat, dairy, eggs) accounts for 18 percent of all human-caused greenhouse gas emissions, compared to only 13 percent that is caused by the entire transportation system: cars, trucks, buses, ships, trains and airplanes. According to an even more accurate calculation by World Bank Group and International Finance Corporation environmental consultants Robert Goodland and Jeff Anhang (published by WorldWatch), animal agriculture actually produces 51 percent of all greenhouse gases. Fully 45 percent of all land on Earth is used for raising food animals and growing feed for them, according to livestock industry experts.

In this country, we take food crops — corn, oats, and soybeans, for example — that humans can eat and feed them to cows, pigs and chickens. When we do this, only about 10 percent of the original food value in the plant crops is returned to us in the form of animal flesh, eggs and milk. Because of this and other factors, eating the plant foods directly requires less than 10 percent of the fossil fuel energy (gasoline and diesel) compared to the standard American diet of both animal and plant foods.

If we burn only 10 percent of the fossil fuel to produce our food, we produce only 10 percent of the carbon dioxide. Eating plant foods produces half as much CO2 as an American omnivore's food, and uses only one eighteenth the land.

There is more: The digestive tracts of cattle, sheep and goats produce methane, and methane is 86 times more powerful as a greenhouse gas than C02. Globally, cattle alone produce 150 billion gallons of methane each day. In addition, the manure from these animals produces nitrous oxide, and nitrous oxide is 296 times more powerful as a greenhouse gas than C02.

Reducing these gases has an added benefit: The C02 that is in the atmosphere breaks down very slowly, so C02 reductions today won't reduce the greenhouse effect for nearly 100 years. Methane and nitrous oxide break down much more quickly and can reduce greenhouse effect in only 10 to 20 years if we stop replenishing these gases by continuing to raise livestock.

Better food choices can actually draw down greenhouse gases to pre-industrial revolution levels fairly quickly, in three ways:

1) By reducing the massive amounts of fossil fuel used to produce animal-source foods.

2) By stopping deforestation caused by grazing and by growing feed for livestock.

3) By allowing for the reforestation of land presently used for grazing animals and growing animal feed, thus increasing the Earth's ability to pull C02 out of the atmosphere.

Replacing meat burgers and cow milk with bean burgers and rice milk allows us to continue eating our favorite foods and reverse climate change quickly and cheaply, in much the same way that happened when people saw the environmental harm in chlorofluorocarbons: They easily and quickly changed to aerosol cans and refrigeration devices that were made without the CFCs that were destroying the planet's protective ozone layer.

Most people can do very little to take existing coal-fired power plants out of service, but we can change what we choose to eat, we can share this information with others and we can demand that government begin to tell people the truth about climate change and what we can actually do about it. For those who are intrigued by this approach and want more depth, consider viewing the documentary "Cowspiracy" or reading the "The Sustainability Secret," both by Kip Anderson and Keegan Kuhn.

Dale Lugenbehl of Eugene, the environmental editor for American Vegan magazine, teaches in Lane Community College's Social Sciences Department and in the Lane County Master Recyclers training program.