

LOCAL

Carbon footprints: Fact vs. fiction

Now that the U.S. House of Representatives has passed legislation regulating greenhouse gases and is exploring the possibilities of a national cap and trade program, it is time to have a look at what factual information is available for the dairy industry in New Mexico and the Southwest.

Several studies are underway to look at the environmental impact of dairy production, especially after the 2006 Food and Agriculture Organization report "Livestock's Long Shadow."

The problem with this report, which aims to assess the full impact of livestock production worldwide on environmental issues, is that it lumps together the environmental impact of so-called "slash and burn" agricultural practices in developing countries to efficient modern farming practices in the U.S.

The bottom line: there is no comparison! So while the numbers presented may hold true for certain parts of the world, they are not representative for the U.S. — not even in the U.S. Environmental Protection Agency's view.

You may have seen the claim that farm animals in the world produce more greenhouse gases than the world's entire transport system?

The bottom line: that doesn't make any sense.

A recent study done at Cornell University sheds some light on the carbon footprint of modern dairy production and dispels some of the popular

"marketing" claims you may have seen in regards to the environmental impacts of alternative production methods.

This study looks at the whole picture and includes animals, cropping, manure, fertilizer and fossil fuels as sources of greenhouse gasses, and nutrient flows.

Because of improved feeding and animal care in the dairy industry, dairy cows now produce much more milk compared to cows in 1944, for example.

As a matter of fact, dairy farms produce almost 40 percent more milk with 65 percent fewer cows. As a matter of fact, milk production per cow has quadrupled since 1944. Now, that fact in and by itself should tell you that the carbon footprint of the dairy industry should have lessened if you produce more milk with less cows, right?

Well, some would argue that if you produce more, these cows eat more, and more resources are used to produce that feed, which increases the carbon footprint.

This is a fact as well, and it is true; the carbon footprint per cow has doubled since 1944, but since we have fewer cows producing more milk, the bottom line is that the total carbon footprint of a gallon of milk has been reduced by two-thirds since 1944.

How can that be, I can hear some of you ask?

The answer is the amount of methane produced by one cow producing 100 pounds of milk is about 33 percent less than two cows producing 50 pounds of milk each, because two cows individually have to eat twice the amount to maintain themselves.

The question is what does this mean for society as a whole or for you as a family?

If we use a technology resulting in increased production of 10 pounds of milk per cow for one million cows

(about 10 percent of the current U.S. herd size), this production improvement would result in: 334,000 fewer animals required to meet demand, which would concurrently result in 2.5 million fewer tons of feed needed and 540,000 fewer acres of cropland needed, which in turn would save enough fuel to heat 15,700 households and water to supply 9,800 households.

The same improvement in production would furthermore produce three million fewer tons of manure, thereby reducing the carbon footprint by 1.85 million metric tons, which equals removing 391,000 cars from the road or planting 291 million trees.

Along the same line, an average family of four buying milk from herds producing 10 pounds more milk, would cut their annual carbon footprint by 345 pounds of carbon dioxide, which is equivalent to planting 25 trees.

So what about the effect of organic dairy farming on the environment?

Reality is that it would take a 25 percent larger U.S. herd size and 30 percent more land to produce the same amount of dairy products.

By the way, based on information from Frank Roe's "The North American Buffalo," it appears that the historical U.S. buffalo population had twice the carbon footprint of today's dairy industry!

For more factual information in regards to dairy farming in New Mexico, visit New Mexico State University's Dairy Extension Program website at <http://dairy.nmsu.edu>.

For more information, contact Robert Hagevoort, dairy Extension specialist, New Mexico State University, Agricultural Science Center at Clovis, (575) 985-2292, dairydoc@ad.nmsu.edu dairydoc@ad.nmsu.edu.

AG SENSE



By Robert Hagevoort