



Dairy Industry Targets Cow Burps to Cut Emissions

January 10, 2011

By Jonathan Bardelline

ROSEMONT, IL — Ten projects developed as part of the U.S. Dairy Sustainable Commitment are expected to get it close to halfway to its goal of slicing the greenhouse gas emissions of milk by 25 percent.

Launched in 2007, the commitment is an industry effort overseen by the Innovation Center for U.S. Dairy, which released a progress report last month. The commitment is also being supported by the U.S. Department of Agriculture.

Although the commitment includes a number of goals for 2020, the major one the Innovation Center is focusing on is reducing GHG emissions by one-fourth.

The Innovation Center expects current projects to reduce emissions by 11 percent by 2020, with the biggest chunk of that coming from capturing methane and processing biogas from it.

To guide its work, the Innovation Center had a life cycle analysis (LCA) of GHGs from milk conducted by the Applied Sustainability Center at the University of Arkansas.

The LCA found that production accounts for about 51 percent of a gallon of milk's emissions, and feed production accounts for about 20 percent. The primary source of emissions during production is the cow's themselves in the form of methane from burping as well as methane from manure.

Some concepts being explored to deal with those emissions include making changes to feed so fewer cows are needed, using additives that would reduce methane from cows, using manure as fertilizer and building anaerobic digesters to handle manure while also producing usable biogas.

Other goals for 2020 include reducing nitrogen fertilizer use by 10 percent, conducting 7,200 energy audits, improving the energy efficiency of farms by 10-35 percent and constructing methane digesters at 1,300 farms.

The Innovation Center stated in the progress report it plans to publish more reports, eventually on an annual basis. LCAs for all impacts from milk and cheese are also being conducted, along with an LCA on milk processing and packaging.