



Dairy companies find new ways to cut energy use, costs

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By: [Gail Barnes](#)



By Dr. Gail Barnes, Vice President, Technology & Packaging, Innovation Center for U.S. Dairy

What does a dairy manufacturer need besides a separator, pasteurizer, homogenizer and filler? According to Jim Carper, editor-in-chief of Dairy Foods, the answer is a greenhouse gas (GHG) emissions calculator!

Jim and I had just attended [the International Dairy Foods Association's Dairy Sustainability Symposium](#) which took place in Chicago on May 30th and 31st. Referring to these new tools, developed under the leadership of the Innovation Center for US Dairy, Jim told me, "I was impressed by the number and the quality of the science-based tools that will help identify opportunities to reduce energy use and costs as well as greenhouse gas emissions. There is a tool for dairy processing, packaging and transportation."

Here's the kicker: Jim continued, "For dairy plant managers, these tools are as essential as separators and pasteurizers."

Dr. Darin Nutter, team leader of the Innovation Center's Dairy Plant Smart™ team which developed and has just launched the Dairy Plant Smart™ GHG calculator, said, "Our hope is that the simplicity of the Dairy Plant Smart™ tool will encourage wide use within the industry, assisting with their tracking and benchmarking efforts."

Commenting on the fluid milk simulation tool that evaluates the impact of alternative technologies, Dr. Peggy Tomasula from the USDA's Agriculture Research Service said, "Dairy Plant Smart™ can show dairy companies how to create a table-top version of their processing plant using computer simulation. Once constructed, they can investigate making changes in operating conditions that reduce energy use and greenhouse gas emissions."

The demonstration of the Dairy Fleet Smart™ GHG calculator gained the team a number of new members as well as offers to work with the Innovation Center on new case studies featuring best management practices.

In the 150th anniversary year of the first pasteurization test completed by Louis Pasteur and Claude Bernard, it was both a thrill and an honor to hear the GHG calculators developed by the Innovation Center for US Dairy described as the “must-have” equipment for dairy plants.

[This article also appears on dairygood.com, a website of the Innovation Center for U.S. Dairy on behalf of America's dairy farmers.](#)

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