



**U.S. Dairy  
Sustainability Awards**  
Innovation Center for U.S. Dairy®

## **Vander Haak Dairy Wins 2014 U.S. Dairy Sustainability Award**

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*Lynnwood, WA* — Vander Haak Dairy near Lynden, WA, has today been presented with the Outstanding Achievement in Renewable Energy Award by the Innovation Center for U.S. Dairy, as part of its 3<sup>rd</sup> Annual U.S. Dairy Sustainability Awards.

The awards recognize dairy farms, dairy industry businesses and collaborative partnerships that are committed to stewardship and sustainability, delivering exceptional results that are good for business, good for the environment and good for local communities.

The awards program is part of the dairy industry's wider commitment to advance the long-term economic, environmental and social sustainability of dairy farming in America. They were presented during a ceremony in Washington, DC.

Vander Haak Dairy was the first farm to install an anaerobic digestion system in Washington state. The digester is now a national model for reducing odor, creating useful by-products and repurposing human food processor waste to help grow more food.

The digester is a closed system that uses anaerobic bacteria and enzymes to break down organic molecules in animal waste and other substances. Digestion causes the release of carbon dioxide and methane gas – a clean, renewable fuel that powers a diesel generator. The generator produces electricity that is transferred directly to Puget Sound Energy's power grid – adding an economic benefit to the farm.

The Vander Haak digester provides enough sustainable electricity to power 400 homes annually. It removes 70 percent of manure solids, recovering 600,000 pounds of ammonium sulfate fertilizer and 3 million pounds of phosphorus-rich solids – both of which can help in crop production.

The process also yields a clean, odorless fiber material suitable for a variety of commercial purposes – adding yet another revenue source for the farm.

When combined with carbon credits, fees from the 15 to 20 human food waste suppliers who contribute digestible materials and sales of by-products, the digester investment becomes a viable business model.

“Since we installed the digester in 2004 it has been retooled several times to extend its renewable energy-generating value to include reducing odor and creating marketable by-products such as fertilizer,” says third-generation dairy farmer Steve Vander Haak, who holds a degree in animal sciences from WSU.

“We are now experimenting with concentration and extraction of valuable nutrients like phosphorus and nitrogen from digested manure,” Vander Haak adds. Phosphorus recovery from animal waste is more sustainable than traditional mining practices. In addition, the digester generates a more environmentally friendly alternative to peat moss and reduces carbon emissions by 17,000 pounds annually.

“Our ongoing efforts have allowed us to upgrade power output by 25 percent and identify a string of new products and technologies,” Vander Haak said. “But the work isn’t over as there’s always opportunity to do more”.

According to Craig Frear, Ph.D, Assistant Professor of Biological Systems Engineering at Washington State University (WSU), the dairy industry, government and WSU scientists have been working in partnership on sustainable dairy farming systems for many years.

“The partnership has invested in considerable research, experimenting with different technologies to convert dairy waste into renewable energy and valuable by-products while sustaining a viable business model,” Frear said.

“The award recognizes the Vander Haak farm which, along with many other dairies in the state, has become a national leader in extending the digester for renewable energy to create marketable products – such as peat moss replacements – from dairy waste, making the considerable economic investment in a digester a viable business option,” Frear continued.

Washington is unique in having won four U.S. Dairy Sustainability Awards in the three-year history of the program. Previous recipients include Werkhoven Dairy near Monroe; Skyridge Dairy near Sunnyside; and Seattle-based Darigold Inc. for Outstanding Dairy Processing & Manufacturing Sustainability.

Through improvements in cow health, nutrition and comfort, among other factors, dairy farms today use 90 percent less cropland and 65 percent less water; and produce 76 percent less manure and 63 percent fewer carbon emissions than they did in 1944 (when a World War II study of dairy farm productivity established the only validated baseline for environmental impacts).

Nominations for the U.S. Dairy Sustainability Awards are evaluated by an independent panel of judges who measure results based on sustainability objectives in environmental, economic and social areas.

[Innovation Center for U.S. Dairy®](#) is a forum for the dairy industry to work together pre-competitively to address barriers and opportunities to foster innovation and environmental sustainability. The Board of Directors for the Innovation Center includes dairy industry leaders representing key producer organizations, dairy cooperatives, processors, manufacturers and brands. The Innovation Center is staffed by Dairy Management Inc™.

[The Washington Dairy Products Commission](#) was created by the Washington state legislature to promote the consumption of dairy products within Washington state and to educate the people of Washington about dairy products, dairy producers and the dairy industry. All Commission activities are funded entirely by dairy farmers. Washington ranks 10th in total milk production among the 50 states and is home to approximately 480 dairy farms. Dairy foods constitute the state's 2nd largest agricultural commodity with direct and indirect economic impacts estimated at \$5.2 billion annually.

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**[sources for interviews:](#)**

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