The Nutrient Recycling Challenge

U.S. Environmental Protection Agency
American Biogas Council
National Milk Producers Federation
Cooper Farms
Marquette University
Tyson Foods, Inc.
World Wildlife Fund
Dairy Farmers of America
Innovation Center for U.S. Dairy
Water Environment & Reuse Foundation
Washington State University
Smithfield Foods
U.S. Department of Agriculture
CowPots
Ben & Jerry's
National Pork Producers Council
Newtrient, LLC
Cabot Creamery Cooperative
American Society of Agricultural and Biological Engineers
Iowa State University

The U.S. Environmental Protection Agency (EPA) has partnered with pork and dairy producers, USDA, and environmental and scientific experts to host the Nutrient Recycling Challenge, a competition to find affordable technologies that take nutrients from livestock manure and create valuable products.

Every year, livestock producers manage over a billion tons of animal manure containing valuable nutrients—nitrogen and phosphorus—that plants need to grow. A major use of manure is as a renewable fertilizer, but it should be used properly to minimize water pollution and build healthy soils. In addition, there is a tremendous opportunity to generate environmental and economic benefits from manure by-products, but further innovation is needed to develop more effective and affordable technologies that can extract nutrients and create products that farmers can use, transport, or sell more easily to where nutrients are in demand.

The mission of the Nutrient Recycling Challenge is to help find technologies that are a win-win for the environment, farmers, and the economy.

Farmers across America are asking:

"How can I manage nutrients on my farm better and more affordably?"

Photo credit: Cabot Creamery Cooperative

Timeline

Phase I: Concept Papers.....November 16, 2015 – January 15, 2016 (completed)

Phase II: Technology Designs.....October 2016 - March 2017

Phase III: Prototypes/Proof of Concept.....2017

Phase IV: Finalists' demonstration pilots on farms.....TBD

In Phase I, EPA received 75 concept papers from around the world and selected 34 to continue on to Phase II. EPA invited the selected teams to a two-day summit in March 2016 in Washington, DC, and awarded a total of $30,000 in cash prizes to the top ten submissions. The summit was a forum for innovators to meet experts and other innovators and learn about resources to develop their ideas into real-life technologies.

Phase II of the challenge will be a non-competitive incubation program in which the 34 selected teams will develop Technology Designs based on the Concept Papers they submitted in Phase I. Innovators will be required to submit their Technology Designs by March 2017 as preparation for entering Phase III, which is expected to be a prize competition for building Prototypes. The plan for the fourth and final phase of the challenge is to conduct demonstration pilots of nutrient recovery technologies on real-life farms.

Details and schedule for Phase II will be announced in September 2016.

Phase II Program

Phase II of the Nutrient Recycling Challenge will be a non-competitive incubation program to support innovators as they develop Technology Designs based on the Concept Papers submitted in ***Phase I***. ***Phase II*** will begin in October 2016 and only be open to the 34 teams selected in ***Phase I***. EPA and its Partners will support the innovators with informational webinars and workshops, individualized feedback, and other resources to maximize their ability to develop designs for effective and affordable technologies. Innovators will be required to submit their designs and finalize their teams by March 2017 for entry into ***Phase III*** of the challenge, which is expected to be a prize competition for building Prototypes.

Details and schedule for *Phase II* will be announced in September 2016.