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Plan for keeping crops cool lands grand prize

Published: May 2, 2014

Coolify's plan for designing affordable micro cold storage units takes top honors at the Agricultural Innovation Prize competition



Rajat Sethi and Ananth Raj Gudipati hold their prize-winning check, alongside Agricultural Innovation Prize organizers and sponsors (Photo: Wisconsin Institute for Discovery)

Several MIT Sloan students landed awards—including the \$100,000 grand prize—at the first **Agricultural Innovation Prize** competition at the University of Wisconsin-Madison last month.

Coolify, a startup founded by MIT Sloan students Rajat Sethi, MBA '15, and Santiago Arias Duval, MBA '14, and MIT mechanical engineering PhD student David Martin Warsinger, as well as Harvard Kennedy School student Ananth Raj Gudipati, took top honors for its plan for a micro cold storage unit that would reduce food waste in rural India.

Another MIT Sloan-based team, **Love Grain**, co-founded by Aleem Ahmed and Caroline Mauldin, both MBA '15, won \$25,000 for its gluten-free food company that relies on a grain grown in Ethiopia. Sethi, Ahmed, and Mauldin are all enrolled in MIT Sloan's **dual degree program with the Harvard Kennedy School**.

The 2014 Agricultural Innovation Prize was sponsored by the Howard G. Buffett Foundation in cooperation with the United States Department of Agriculture and in partnership with the Wisconsin Institute for Discovery and was administered by students from the University of Wisconsin-Madison. The two-day competition challenged all U.S. undergraduate and graduate students to develop innovative ways to improve global food systems.

Sethi, who is also a **Legatum Fellow**, and Duval met while taking classes at MIT Sloan, and decided to tackle the issue of food waste in the agricultural supply chain, specifically in hot climates like India's.

"As much as 40 percent of harvested fruits and vegetables go to waste in India each year," Sethi said. "There's not enough refrigeration. In these tropical areas, the temperature is very high and the ambient humidity is very high. The combination of these two things is really bad for harvested foods." According to Sethi, there is nearly \$6 billion in food waste in India every year, where more than 200 million people are regularly malnourished.

Partnering with Gudipati and Warsinger, they designed a prototype of a cheap and efficient cold storage container with a capacity of 1,500 cubic feet. With vacuum-insulated panel technology as well as solar panels, each unit costs approximately \$8,500, significantly less than the \$1.5 million price tag for the traditional bulk cold storage units on the market today. Coolify aims to make the units more accessible to the small



Rajat Sethi and Santiago Arias Duval

farmers who could potentially form village cooperatives to purchase them, according to Sethi and Duval.

“Cold storage is not a new concept,” Sethi said. “But this has to be modeled so that it’s convenient for [farmers] to use and so that it makes business sense.”

The money from the competition will enable the Coolify team to build and test a prototype in India this summer. Sethi and Gudipati will travel to India this spring, and Duval will join them shortly after he graduates in June.

The competition featured a total of four teams with MIT Sloan students. In addition to Coolify and Love Grain’s wins, startups Spoiler Alert and GreenPath Food were each one of 24 teams (out of a total of 252 applicants) to be named as semi-finalists. Spoiler Alert was founded by Ricky Ashenfelter and Emily Malina, both MBA ’15. GreenPath Food is the brainchild of Zack Armen and Sid Kamath, also both MBA ’15.

Love Grain’s Ahmed said he was pleased to be named as a finalist in the competition. “Love Grain was honored by the Ag Prize’s recognition of our business model as good for the environment, people, and the world. Our goal is to build a sustainable company that creates value for every person that touches our supply chain, and these funds will help us do just that,” Ahmed said.