## Making an Impact With Milk in Africa



So here is the challenge: In some emerging dairy sectors in developing African countries, raw milk cannot be cooled at dairy farms due to lack of access to reliable electricity. This means much of the evening milk goes bad overnight in the heat. It is lost income for farmers and a widening gap between milk supply and milk demand. Post-harvest milk losses are estimated at 40%. Paul Mueller Company in the Netherlands is innovating multiple solutions to this problem through different stages of milk production. In Uganda, Mueller employees have been working to set up about 100 milk collection centers, where milk is centrally collected, cooled, and stored under acceptable standards. Typically farmers had to transport their milk far away to a processor in a bigger city. With the collection centers, farmers can bicycle their milk to the closest village where dairy co-ops are developing among small farmers. These co-ops allow farmers to not only make more

income from their milk, but to also create positive foundational changes to their community infrastructure. As they struggle less for daily survival, farmers engage in new business ventures—like adding crops to their farm or re-building schools. The ripple effect helps increase access to food, jobs, and medical care and encourages young people to stay and continue to build prosperity.



This SimGas<sup>®</sup> biogas powered cooler allows for off-grid, safe storage of fresh milk.

## Working to improve the lives of farmers and families

Mueller employees also partnered with BoP (Base of Pyramid) Innovation Center to develop a solar-powered milk cooling unit for small-scale farmers in Ethiopia. Enabled with the power to store and cool milk directly on their farms, these farmers can increase their income by delivering and selling the highest quality of milk possible. Mueller teamed up with another partner in innovation, a company called SimGas, a biogas provider in Africa. The company was looking to expand their system, and worked with Mueller to develop an off-grid biogas-powered milk cooling system for small dairy farms. The collaboration helped SimGas win an OpenIDEO Agriculture Innovation Award in 2016! It will be the first product commercially available that enables small herd dairy farmers to preserve milk according to standards accepted by international milk buyers. Whether it is milk collection sites in Uganda or off-grid milk coolers in Ethiopia, Mueller employees are dedicated to sustainability and improving the lives of dairy farmers everywhere.



Farmers bike their fresh milk to nearby collection stations.