



# Food Security

in

# Ethiopia

Many of us take the ability to store food in our refrigerators for granted. However, in many places, refrigeration is not readily available. Located near the equator, Ethiopia has historically high temperatures which affect the ability to preserve food. Even though Ethiopia's economy relies heavily on agriculture, there is no refrigeration in the food supply chain. Even Ethiopian butcher shops and food markets lack refrigeration. This means that all of their food supply must be consumed quickly, before it spoils. Dr. Jason Scheffler, meat scientist at the University of Florida (UF), searching for solutions to Ethiopia's food preservation problem. He and his team of graduate students are researching how food products readily available in Ethiopia can be improved to have longer shelf lives.

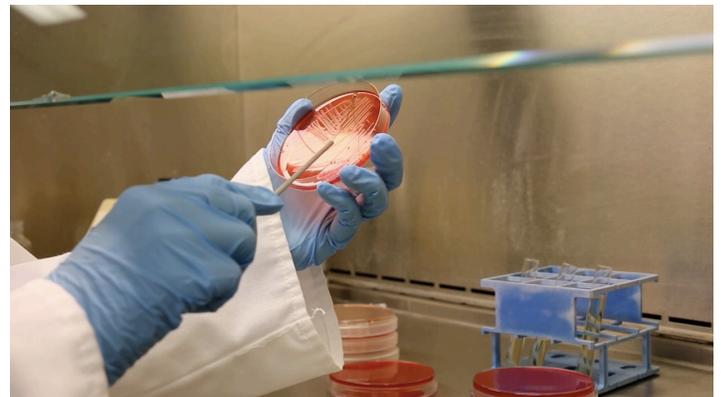
*"We are looking for ways to make changes that fit within the culture and history of Ethiopia."*

Scheffler and his team are currently developing a beef jerky product within the conditions and constraints of a typical butcher shop in Ethiopia. The goal is to create a beef jerky with ingredients that are accessible to Ethiopian farmers and butchers for the masses. This would allow more Ethiopian citizens to have access to beef products due to the extended shelf life.

Additionally, Scheffler and his team are working to find ways to control pathogens that may currently exist in beef products. Scheffler is raising Brahman cattle at the UF Beef Teaching Unit. The cattle are fed a strict diet, similar in nutritional value to cattle raised in Ethiopia.

When the meat is obtained, it is exposed to select pathogens commonly found in Ethiopia. Scheffler and his team then treat the sample and make it safe for human consumption.

This research is important because it would improve food access and quality of life for people in countries that lack refrigeration and strict food safety regulations.



Scheffler has traveled to Ethiopia twice in efforts to gain first-hand experience with the country's meat production process. He return to Ethiopia soon to analyze microbial exposure of meat in butcher shops and try to identify potential problems in their supply chains. The goal of this expedition is to prevent food contamination due to lack of cold preservation, and be able treat contaminated meat to make it safe for human consumption. The goal is to influence policy changes in the food production process, to prevent and treat contamination, and make food safer for citizens of Ethiopia and other countries with similar food production processes.

For more information about Scheffler and his team's research, you can email: [jmscheff@ufl.edu](mailto:jmscheff@ufl.edu)



## STREAMING SCIENCE