## **NSPIRE**

## Christopher Gambino





BS, Biological Science, Nutrition Concentration (North Carolina State University) PhD Student in Animal Science (Washington State University)

The NSPIRE IGERT Program is a multidisciplinary student doctoral training program designed to create a new generation of scientists with broad and rigorous training in nitrogen cycling who seamlessly integrate nitrogen cycle science for effective communication with public policy makers.

## Research title: Mass Balance Approach to Reactive Nitrogen Species in Ruminant Production Systems

Chris is studying greenhouse gas emissions from ruminant production systems. He will describe emissions of nitrous oxide, ammonia, and methane from both intensive and extensive ruminant production systems as well as characterize soil oxidation rates of methane. To examine emissions, Chris will scale up from grid level measurements to whole enterprise scale measurements. Characterization of the environmental impact and greenhouse gas mass balance of both the intensive and extensive ruminant production systems will aid in development of nitrogen estimation models used for policy required reporting and provide information to identify critical control points for mitigation strategies.

## Contact information:

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