

Keeping the chicken and eggs we eat safe is of great importance since poultry is the single largest agricultural commodity in the state of Georgia. Over the years technology has greatly improved the speed and efficiency in diagnostic testing for certain bacteria in the poultry industry. The most common and, therefore, important bacteria to test for are *Salmonella* and *E. coli*. But, this comes at a high cost when testing many samples in a short period of time. This project is a joint venture between UNG and the Georgia Poultry Laboratory network (GPLN) in Gainesville, Ga. The overall goal is to find a set of biochemical tests in an easy to inoculate format that provides a confident means of identifying *Salmonella* and *E. coli*. The current technology based method – Vitek costs approximately \$10 per sample, and when running 500-600 samples per month, the costs become extreme. By combining a series of microbiological tests, these same diagnostic samples can be processed at a fraction of that cost without significant time loss or testing quality. Finding the best combination of inclusionary and exclusionary tests is the basis of this ongoing project. The best combination of media to be used has yet to be determined, but the strides made thus far are promising. Upon completion of this project, we estimate the cost per diagnostic sample will decrease, allowing more testing to be done and increase the health and safety of the poultry produced in Georgia while also saving money at the same time.