Abstract
Food retail outlets, specifically farmers’ markets, are potential sources of foodborne illness and have been responsible for foodborne illness events. Farmers’ markets differ from other food retail outlets as guidelines on quality and method of food products sold differ based on individual market requirements and local regulations. Considering the increasing popularity of markets, a focus on safety of food products sold protects patrons and local economies. Improper holding temperatures, cross-contamination, and poor personal hygiene of food handlers are potential risks at farmers’ markets. Researchers, posing as secret shoppers, were trained to collect quantitative and qualitative observational data using a structured survey. During 2010, secret shoppers attended 37 farmers’ markets across North Carolina and collected data on facilities and actions of 168 vendors.

Results
Materials & Methods
In the spring of 2010, 20 secret shoppers were trained to collect quantitative and qualitative observational data using a structured survey. The survey focused on gathering data on the overall facility (Figure 1) and individual vendors (Figure 2 & 3). During the 2010 season, trained secret shoppers attended 37 farmers’ markets across North Carolina and collected data on the facilities and behaviors of 168 vendors.

Foods Available
Results indicate risky practices occurring at North Carolina farmers’ markets. Low availability of handwashing facilities, risky behaviors during sales of food products, temperature abuse of potentially hazardous food samples, and poor food handler hygiene were the main food safety risk actions observed by secret shoppers. Even though practices of handwashing were not recorded, based on the low availability and maintenance of handwashing facilities, a high risk for poor hygiene and low adherence to handwashing by food handlers was conveyed. Potentially hazardous foods sold as samples were observed prepared, stored, and transported improperly, which provide an increased risk for cross-contamination, temperature abuse, and inadequate sanitation.

Discussion
Considering GAPs are the most relevant safe practice guidelines for vendors who sell produce at farmers’ markets, relevant guidelines should be developed and communicated to members of farmers’ markets in order to increase the safe food practices by vendors. New guidelines created specifically for risk management at farmers’ markets will aid in the reduction of food safety risk actions.

Conclusion
This study provides evidence for the need to promote education on food safety behaviors and best practices at farmers markets. The data collected provides a foundation on specific areas vendors should be trained.