

## A Protein and Microbiological survey comparing Organic and Traditional eggs

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Consumers can be confused by the cornucopia of options and variety of labels on egg cartons in grocery stores. One of the most common concerns is the difference between organic and traditionally produced eggs. Consumers have been encouraged by advertisers to equate an organic product to superior quality, higher nutritional content, and, therefore, a healthier option for consumption. In addition, organic products tend to be more expensive than traditionally produced foods. Is this perception based on fact? Are there nutritional differences between organic and traditionally produced products? If nutritional differences exist, then to what extent? Do these differences justify the extra expense? To begin to answer these questions we looked at microbial differences and compared protein content between two locally purchased egg products. "Store brand" eggs and organic eggs were purchased from a local grocer. We then used standard microbiological and biochemical analytical methods to compare these products. First, a microbiological survey was performed to see if there were any differences between the egg types. Second, the protein content of the eggs was compared by UV-vis spectroscopy, SDS-PAGE electrophoresis, and Bradford Protein Assay to determine if there are any quantifiable differences in protein content or the type of protein in each kind of egg. Our results indicated that there are no differences in the microbial environment or protein content of the eggs.