

# Quantifying Infectious Contamination of Foods

Food service sanitation is a critically important issue to everyone: consumers, restaurants, delicatessens, grocery stores and food companies. Many studies have been done in this area and research continues. One such study utilized a Texture Analyzer (see Figure 1) in a unique application to study the transfer of bacteria from food surfaces to the food product.

The study was undertaken to learn which factors are most important in determining how effectively bacteria can transfer from any surface that comes in contact with food. Texture Analyzers are generally used to study the structure of food products by measuring the response of the item to the application of controlled forces. It is the ability of the Texture Analyzer to apply controlled force to a food item that was the reason for its choice in this study. The Texture Analyzer provides steady contact pressure, measured in kPa or psi, between a food preparation surface that had been inoculated with bacteria and the food item itself. A built in clock in the Texture Analyzer allows the contact to take place over a defined time interval.

In studies such as this one, a particular contact force is chosen along with one contact time. The condition of the food prep surface, the type of bacteria, and the specific food product are varied. It would be easy to vary only the contact force or the contact time while holding everything else constant to see if force or time is also important.

Texture Analyzers offer the flexibility needed for many different types of testing in addition to profiling mouth feel, at a fraction of the cost of traditional compression and tensile testing machines.



**Figure 1: Brookfield's CT3 Texture Analyzer**

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