

TESTING

Once all of the necessary paperwork has been completed and filed than a processor can begin production of their product. Before putting a product on the market, the product needs to be tested to make sure the product is safe to consume. The tests run on the product include pH, Aw, microbiological count, and shelf-life.

pH

pH is the degree of acidity or alkalinity of a sample. pH is directly related to the ratio of hydrogen(H^+) to hydroxyl(OH) ions in a solution. The more hydrogen ions that are present the more acidic the solution. Since it is based on a logarithmic scale, a pH of 6.0 represents 10 times more hydrogen ions than are present at a pH of 7.0. The recommended instrument used to measure pH is a pH meter. The pH meter measure the electrical potential developed between a glass and reference electrode when they are immersed in a solution.



pH meter

Water Activity (Aw)

Water activity (a_w) is one of the most critical factors in determining quality and safety of the goods you consume every day. Water activity affects the shelf life, safety, texture, flavor, and smell of foods. It is also vital for the stability of pharmaceuticals and cosmetics. Because water activity is so important, it is just as important to be able to measure it accurately and quickly. A water activity meter is used

to measure the water activity of samples. It is a simple apparatus to use; all it requires is putting the sample in sample cups and running the machine.

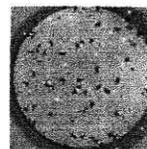


water activity meter

There are different labs located in New Mexico that a product can be sent to have the proper procedures conducted on the product.

Microbiological Count

Petrifilm plates are used to count microorganisms contained within a single product. Petrifilm plates are designed to allow organisms to grow in a limited oxygen environment. The petrifilm plates can be hydrated with a bacterial culture, or a dilution of a culture for counting the number of viable organisms.



Inoculated petrifilm plate with coliforms

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