**Microwave Assisted Pasteurization System (MAPS)**

Microwave Assisted Pasteurization (MAPS™) provides shelf life extension to refrigerated and prepared foods and a robust food safety intervention step, improving the quality and safety of food from manufacture to consumption.

**The Technology**

Compared to conventional thermal processing methods, MAPS systems significantly shorten the time foods and beverages are exposed to high heat, which preserves nutrients, color, texture, and taste — and eliminates the need for unnatural additives and reliance on excess sodium for flavor enhancement. The result is ultra-convenient, clean-label, restaurant-quality food that tastes great and helps consumers eat healthier while maintaining fast-paced lives.

**MAPS-Processed foods and beverages:**

***Restaurant quality***

***Nutritious***

***Clean label***

***Up to 12-week shelf life***

***Reduces food waste due to spoilage***

MAPS is similar to Microwave Thermal Assisted Sterilization (MATS) but operates at the lower temperatures and shorter heating times required for pasteurization. In the MAPS system, packaged foods and beverages are heated simultaneously with hot water and microwave energy at 915 MHz to a temperature of 70-90°C for 2-10 minutes depending on the application, effectively eliminating viral and bacterial pathogens.

MAPS extends the shelf life of pasteurized products to up to 12 weeks with minimal degradation in organoleptic qualities. With a greater shelf life, MAPS-processed foods and beverages will help reduce food waste due to spoilage across the supply chain.

**MAPS-friendly foods**

Refrigerated product lines of prepared foods and beverages that are sold in retailers, convenience stores and/or food service channels are all ideal for MATS processing, including:

* prepared foods and ready-to-eat meals
* beverages
* vegetables
* low-acid fruits
* dips, sauces and salsas
* baby food
* egg dishes.

**Food Safety**

A second and equally important benefit of MAPS is food safety intervention. MAPS can be applied to a range of refrigerated, frozen and prepared foods, to provide an intervention that will improve food safety across the supply chain.

MAPS will help food purveyors meet the mandates of the U.S. Food and Drug Administration Food Safety Modernization Act. MAPS processing can be used as a safety intervention-step to improve the safety of prepared/ready-to-eat and frozen foods and batch ingredients sold or served by:

* grocery chains
* restaurant chains
* convenience stores
* nursing homes
* hospitals
* school meal programs
* commissaries/cafeterias.

**MAPS Systems**

The MAPS-50 Production System will be available in 2017. This pasteurization-only system will process 50 packages per minute and is designed for small-scale or regional food processing facilities and central kitchens.

Pasteurization can also be performed on any of the MATS systems, but only pasteurization can be performed on a MAPS system. Sterilization requires a MATS system.