

Nut Pasteurization Trends

The regulatory landscape regarding nuts has changed tremendously over the last 10 years, particularly since the mandated pasteurization of Almonds in 2007 following food borne illness outbreaks. At the time the program was challenged by the industry, but the FDA and the Almond Board of California agreed that the move was necessary to protect the consumers and support the marketing of the health benefits of almond consumption. And this has been proven to be very effective as there have been no California almond recalls since then.

However, there have been food borne illness outbreaks and product recalls on other tree nuts and currently FDA is conducting a risk assessment on the product category. An extensive sampling plan is underway and as a result salmonella positive cases found in retail packs and at processors are made public on a weekly basis. These positive samples all trigger product recalls which negatively impact the industry and are very costly for the parties involved.

Industry groups are taking the situation very seriously and are conducting their own risk assessments. For many in the pistachio, walnut and hazelnut industries, preventative measures have already been implemented and the nuts are pasteurized. For example, propylene oxide is now used not only on almonds but also on other nuts. Alternatives for pasteurizing nuts are on the market which have demonstrated performances that meet the FDA 5log pasteurization requirement. Natural pasteurization processes suitable for conventional and organic products have emerged recently as alternatives to fumigation.

One technology, Napasol, is the leader in the market with large installations operating in the walnut and hazelnut industries and with processors who handle a wide range of nuts. The nuts are preheated and then exposed to dry saturated steam which provides validated pasteurization performance without moisture pick up and no drying step necessary post pasteurization. This

saturated steam process maintains the color, bite, texture and taste, as well as moisture and water activity levels of the raw nuts.

The tree nut industry is poised for major changes in food safety with the implementation of the Food Safety Modernization Act (FSMA) which impacts not only domestically produced nuts but also concerns producing countries around the world. Pasteurization of nuts is becoming the norm in the nut industry as processors adapt to increasing regulatory constraints and industry demands. Processors are embracing these changes and many are choosing to bring a pasteurization process in house rather than send their products to third party for treatment.

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