ACS ARTISAN CHEESE PREVENTIVE CONTROLS WORKING GROUP

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Des Moines, Iowa

OVERVIEW

ACS invited a large and varied group, including academics, producers, distributors, retailers, and others (see participant list below) to discuss application of Preventive Controls to manufacturing cheese made with unpasteurized milk. The following summarizes the group's key findings and proposed direction.

KEY FINDINGS

- Based on our review of the data, we concur with FDA's findings that the risk of illness from consumption of cheese made from unpasteurized milk is low. In addition, when pathogens were found, the source was not exclusively linked to heat treatment of the milk.

- The FSMA Final Rule for Preventive Controls provides a framework for strengthening the food safety system across the board, and its impact on improved food safety has yet to be fully implemented. We believe this FSMA framework, in particular the "Mandatory Preventive Controls for Food Facilities", will positively impact food safety for all cheese, and may obviate any need to differentiate cheese based on the heat treatment of the cheese vat milk. The Quantitative Assessment of Microbiological Safety of Raw Milk Cheeses Manufacturing conducted by scientists for the New Zealand government concluded that "The main conclusion from the studies was that the safety of cheeses is primarily determined by the hygienic quality of the milk used to make the cheese, not by the ability of the process to eliminate pathogens, with the possible exception of Feta-style cheeses and cheeses that involve a cooking step (e.g., hard grating cheese)."

- The requirement to monitor for environmental pathogens is of particular importance as the research indicates that most contamination occurs after heat treatment of the vat milk.

- Given the above, we believe the same preventive controls format can be applied regardless of the degree of heat treatment applied to the milk. A sample Preventive Controls document for the production of Pepper Jack cheese (attached courtesy of Wisconsin Center for Dairy Research) can serve as a template for all cheese production.

- For all producers, but particularly those who do not implement a validated process control for raw milk or cannot verify the safety of their raw milk supply, additional preventive controls may be necessary. In these cases, varieties of cheese made from unpasteurized milk should perhaps be considered in terms of their risk profiles. Researchers, producers, and retailers already assess the relative risk of cheeses based on certain production and composition qualities, and perhaps a multi-level categorization could be agreed upon based on such commonly used differentiators as, for example pH, water activity, salt content, moisture content, choice of cultures/adjuncts, duration of aging, etc. This will help cheesemakers as well as regulators understand which products have the greatest potential to support pathogen survival and/or growth, and which thus might require the most aggressive preventive controls.

- Testing can play a role not only in verification or validation, but as one integral piece of the preventive controls to ensure a safe raw milk supply and/or cheese.

- Safe production of raw milk cheese may involve a science-based series of steps, or hurdles, each of which reduces/weakens pathogens and cumulatively lead to safe products. These steps would be developed and monitored by the producers themselves and would form the basis of their written food safety plans in accordance with FSMA. Evidence that particular combinations of steps (e.g. supplier controls on milk quality, heat treatment, choice of cultures or adjuncts, aging and cheese composition) result in safe products may be accumulated within a plant or across the industry to validate the overall process.

PROPOSED NEXT STEPS

The group proposes that as a next step FDA hold a meeting at which technical experts from FDA and industry can jointly discuss and consider this approach and seek consensus on how producers might develop individual food safety plans incorporating a series of steps, starting with the raw milk supply, that in aggregate enhance the safety of cheeses made from unpasteurized milk.

PARTICIPANTS

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