

Feasibility and issues in the application of HACCP at the farm level in Japan

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Codex Committee recommends that HACCP system should be adopted throughout the food chain from farm to table for prevention or elimination of food safety hazards. Based on this recommendation, MAFF of Japan established Hygiene Control Guidelines for Livestock based on HACCP system for farms (1996), and publicly notified HACCP certification criteria on the basis of the guidelines (2009).

Regulatory agencies (MAFF) and JVO are jointly proceeding with the farm adviser training program based on the certification criteria. The criteria have also been verified over the past three years on pilot farms in terms of (1) producing safe fresh milk, (2) improvement effects in animal health maintenance and milk production.

Based on certification criteria, we conducted a hazard analysis of routine activities on the model farms according to the Codex General Principles of Food Hygiene, identified hazards, and specified control measures. Then, we established a HACCP plan for CCPs, and assessed the effectiveness of implementation of the plans with viable bacteria counts, somatic cell counts of fresh milk, contamination of antibiotic, or even from cows' condition and milk production.

With comparison of pre- and post- implementation of HACCP system for the pilot farms, safety and productivity of raw milk have been improved. Moreover, productivity improvement include increasing milk production, and decreasing ratio of cows with abnormal milk production, and survival ratio of cow at 12 months old. In the application of HACCP system at the farm level, it is essential to (1) conduct a complete hazard analysis, (2) develop the system according to CCPs, (3) verify and operate it routinely.

HACCP system will never become complete without continuous verification and operation. Thus, it is no exaggeration to say that strong and persistent leadership by farm advisers are indispensable for farm HACCP system.