



Producing Quality Food On-Farm



What We Learned From the Canadian Quality Milk Program's Pilot Trial

Food quality and safety has become a global concern to producers, processors, retailers and consumers alike. Various food scares around the world, from Mad Cow Disease in the United Kingdom to the E. coli water scare in Ontario, have forced the agricultural industry to take a closer look at how food reaches consumers' tables.

Dairy Farmers of Canada has developed an on-farm HACCP-based quality assurance program called the Canadian Quality Milk (CQM) program for dairy producers. Starting in October 2001 a pilot trial of the program began on 15 BC dairy farms. The goals of the trial were to:

1. implement the program and determine the user friendliness, practicality and accuracy of the material;
2. evaluate the costs and time commitment of training requirements and overall implementation for both producers and trainers;
3. increase awareness of the project by involving industry representatives;
4. establish economic and quality baselines for this type of system.

CQM is an excellent tool to reduce food safety & quality risks



Trial Set-up

The fifteen volunteers represented a wide variety of management styles, herd sizes and facility designs. During the six-month trial, participants underwent training, on-farm implementation and validation. Producers on-farm quality assurance programs were scored as a pass (would have received certification that day), conditional pass (would have to provide proof of compliance before being certified) or fail (would have to undergo a second full or

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partial validation before being certified). Water samples were evaluated for microbial contamination and producers' provincial grade reports were accessed as well. Questionnaires, structured and unstructured interviews and participant observation were used to gather data for this trial. Producers' opinions, attitudes and experiences were evaluated throughout the trial. Furthermore, the participants' responses were used to improve the program as the trial progressed.

General Response to the Program

Overall, the majority of producers found the program content accurate. Some felt the program was a positive and inevitable step for the industry, while others thought it was unnecessary as current regulations and quality standards are adequate. They thought the training workshop was essential for them to understand the program and a maximum of 10 people should be present in order to encourage participation during discussions. They also recommended that the program and workbook be kept as simple as possible with mandatory requirements and records consolidated and easy to understand and use.

Validation Experience

Fourteen farms were validated. Of those farms, 5 passed immediately, 5 conditionally passed and 4 failed. Improper pesticide storage, contaminated water samples, improper drug storage/use, dirty equipment, and untidy drug cupboards were some of the non-compliances observed. Some producers fully accepted and agreed with the validation reports while others became defensive of their practices and reasons for them. Others were concerned that the validation resembled a barn inspection too closely and did not think the two should overlap.

Two farms failed and one conditionally passed the first set of water samples and one farm failed and two conditionally passed the second set, with two repeat offenders. Five samples had high total coliform counts and one had a high bacteria count. The majority of producers used well water and 5 of the contaminated samples came from well sources and one from city water. Quality records remained consistent before and during the trial.

Time and Cost Commitment

The average time producers spent setting up the program was about 11 hours; however, it ranged from 45 minutes to 5 days (included reading the manual). The average time spent keeping the daily records was about 10 minutes, truly ranging from 1 minute to an hour for the producer doing more than the just the mandatory items. The program costs were estimated according to the time invested and the costs of fixing non-compliances and meeting the program requirements (e.g. validation, extralabel prescriptions). The average initial program cost was \$1,068, ranging from \$485 to \$2,267. If the two chart recorders

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used to measure milk storage and rinse water temperatures are made mandatory, the average initial costs would be \$3,068. Annual costs were estimated according to the program requirements, the Canadian Quality Assurance program (hogs) and the Generic Costing Model for the Canadian On-Farm Food Safety Programs. Annual costs were estimated to be about \$1,404, ranging from \$805 to \$2,877.

Response to "Change"

Some participants, family members and staff were quite resistant to change their current methods or ways of thinking. The CQM program involves a change in philosophy and management practices, both of which can be difficult to convince a producer to do.

Some producers were engrained in outcome-based evaluation and were resistant to more "regulation" and someone else "looking over their shoulder." These producers were confident in the product they were producing and did not feel the need for a quality program or more inspectors. They did not think the program would improve quality in any way, it was just more unnecessary work.

Other producers were convinced that the program was going to come, it was just a matter of time. These producers were adamant that the program should be as simple and cost effective as possible. They felt there should be a monetary incentive for producers; otherwise, producer buy-in would be low. BC producers are anticipating a number of other programs to be introduced soon (e.g. nutrient management) so they are beginning to wonder how many programs they can sustain before the financial and time commitment become too large. They cautioned against making the program mandatory and recommended a gradual implementation.

Extralabel Prescriptions, Residue Testing and Broken Needles

Extralabel prescriptions, inhibitor tests for new animals and broken needles were serious issues among most producers. Veterinarians tended to resist writing extralabel prescriptions for a number of reasons, such as no valid client-patient relationship, being uncomfortable with the management style of the producer and not agreeing with the treatment protocol being requested. Some producers were concerned that they would be charged for prescriptions and that they would lose their current freedom to treat animals, as antibiotic issues gain more attention. Producers also did not believe that broken needles were an issue in the dairy industry. However, statistics show that four needles were found in beef carcasses in year 2000 and although it was not specified whether they were beef or dairy cattle, with dairy's poor record of cull animals' condition, they are easily suspected. One producer was concerned that broken needles would become a consumer issue simply by the program addressing them.

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Dairy Beef

The significance of dairy producers' contribution to the beef industry was overlooked, both by the program and the producers. Producers did not seem to recognize that young stock could become part of the food chain at any time but rather just viewed them as distantly related to milk quality; therefore, not of concern to the program. The program should address meat quality and safety further in the Self-Evaluation Form, the training program and its name (i.e. Canadian Quality Milk and Meat program, CQMM).

Program Areas Needing More Work

The trial highlighted some requirement recommendations as well:

- pesticide storage and usage was an issue on some of the farms, so the program either has to address pesticides in more depth or ensure that validators are adequately trained in this area.
- program must have access to producers' milk quality records. Either producers would have to fax their records to the program coordinator regularly, or an agreement would have to be signed between the program, regulatory authorities and producers.
- annual equipment check done by a professional.
- review all treatment protocols with herd veterinarian.

The last two items may add considerable cost to producers and were not tested during the trial, so the results do not reflect producers' opinions on these two issues.

Validator Training

In a technical setting such as in a dairy facility, validators are going to need extensive training to be competent and credible. Producers wanted validators to have dairy experience and be free of any conflict of interest. A validation protocol needs to be developed to ensure that consistency is achieved across validators and farms and to describe exactly what the validators' roles are (e.g. from advising to validating). Producers were concerned about biosecurity with the Foot and Mouth Outbreak in Europe and were becoming increasingly nervous about the number of people who currently have access to their farms, so validators must adhere to strict biosecurity standards.

CQM and the Dairy Industry

The trial highlighted the need for the CQM program to work with all stakeholders in the industry (e.g. veterinarians and equipment dealers) to facilitate communication and understanding. The program will affect the whole industry and everyone needs to be involved.

The CQM program also needs to address equivalency across the country. Inspection protocols vary from province to province and implementation costs may as well. Canada must have a

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uniform, national quality assurance program for international and domestic customers to accept the program. A coordinated effort is needed to ensure the implementation occurs uniformly and equivalently across the country. Furthermore, some sort of government agency, such as the Canadian Food Inspection Agency, must oversee or audit the program in order to give it international credibility.

Further Research

The trial also highlighted further research needs. The overall program costs (including national implementation and training) need to be determined, a cost/benefit analysis done and producers' willingness to pay analyzed. Also, more research needs to be done to determine if the CCPs actually improve or maintain milk and meat quality and safety.

Finally...

A communication plan for everyone from producers to consumers and training for everyone in the industry are essential to guarantee full understanding of the importance and significance of the program, as it will impact everyone in one way or another.

All-in-all, the CQM program is an excellent tool to reduce food safety and quality risks; however, its implementation needs more work to reduce inconsistencies, gain producer acceptance and ensure credibility with everyone from the farm to the consumer.

For More Information on the Canadian Quality Milk Program Contact...

This document is part of a larger report, for copies or progress on the development of the program contact:

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