

# Managing Milk Quality, a Training Course for Dairy Farmers

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## Introduction

Over the last three years, a training course on Milk Quality Management was developed for dairy farmers. In three years, over forty 20-hour sessions have been held. Clearly, the demand from dairy farmers for such sessions is on the rise, so we decided to train new instructors and make high quality educational material available to them.

Although dairy farmers can use the educational material at home, we recommend that groups be formed for a 15- to 25-hour training course, which provides participants with a unique opportunity to discuss the topics that most concern them.

During the winter of 1996-1997 over 80 groups averaging 20 dairy farmers have been trained in Quebec. In addition, a number of individuals and institutions have used this material.

A survey has been done on the impacts of this training on milking practices and management.

Managing Milk Quality is a joint project involving the following organizations:

### Course content

- 1 "Milk quality on the farm" looks at quality criteria and how to enhance product quality. The focus is on optimal milkroom work techniques.
- 2 "The mammary gland" explains milk secretion and how udder physiology affects mastitis.
- 3 "The mechanics of machine milking" explores what happens in the claw during milking. This chapter discusses the factors that influence milking and how to milk quickly and thoroughly while maintaining the cow's health.
- 4 "The milking equipment" describes the role each component plays in the milking system. Dairy farmers will find out how to improve their system by investing where it pays off most.

5 "Udder health" demystifies bovine mastitis. This chapter highlights herd health evaluation through improved use of somatic cell counts and milk bacterial culture.

6 "Prevention and control of mastitis" outlines the steps in preparing an action plan aimed at improving udder health and increasing the financial returns from dairy operations. Milking management improvement has never been easier.

## Educational material developed

### A book

An impressive 230-page document includes over 200 photographs and illustrations and a series of practical exercises. This guide is designed to help dairy farmers evaluate the strengths and weaknesses of their operations and to find ways of improving them.

### A video cassette

Footage from some twenty farms demonstrates the different techniques recommended for various situations. Several animated segments show aspects of milking that you've never seen before.

The fifteen modules, providing nearly two hours of viewing, cover a wide range of topics on milking, udder health, and milk quality management.

An additional 25-minute slot summarizes the milking procedure recommended. This is a must-see for any helper who replaces during milking.

### Slides

The material also includes two hundred computer-generated slides, with text, as well as roughly 200 photographs and drawings illustrating chapters 2, 4, and, 5, which are not covered by the videos. This way, instructors can use the medium best suited to each chapter.

### *Instructor's handbook*

This guide provides instructors with all the tools for organizing and giving high calibre training sessions to milk producers.

The educational material, originally produced in French, is being translated into English. It can be further adapted to suit specific needs. For example, the course content could be rearranged to produce a CD-ROM version.

We are seeking partnerships for various adapta-

tion or translation projects. For further information, please contact:

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## Abstract

### **Chronic and recovered cases of sheep-associated malignant catarrhal fever in cattle**

**D. O'Toole, H. Li, D. Miller, W.R. Williams, T.B. Crawford**  
*Veterinary Record* (1997) **140**, 519-524

Malignant catarrhal fever (MCF) is traditionally regarded as a disease with a short clinical course, low morbidity and high case fatality rate. Owing to the limitations of the assays used for laboratory diagnosis, it was difficult to characterize the clinical spectrum of sheep-associated MCF, particularly when the cattle recovered from an MCF-like clinical syndrome. Over a period of three years, 11 cattle that survived MCF for up to two-and-a-half years were identified on four premises. A clinical diagnosis of MCF was confirmed by the detection of ovine herpesvirus-2 DNA in peripheral blood leucocytes using a polymerase chain reaction (PCR) assay that detects a specific 238 base-pair fragment of viral genomic DNA. Of the 11 cattle examined, six recovered clinically with the exception of six bilateral corneal oedema with stromal keratitis (four animals) and unilateral perforating keratitis (one ani-

mal). The 10 animals available for postmortem examination had disseminated subacute to chronic arteriopathy. Recovery was associated with the resolution of the acute lymphoid panarteritis that characterizes the acute phase of MCF, and with the development of generalized chronic obliterative arteriosclerosis. Bilateral leucomata were due in part to the focal destruction of corneal endothelium secondary to acute endothelialitis. Formalin-fixed tissues and/or unfixed lymphoid cells from all 11 cattle were positive for sheep-associated MCF by PCR. These observations indicate that recovery and chronic disease are a significant part of the clinical spectrum of MCF and that such cases occur with some frequency in the area studied. The affected cattle remain persistently infected by the putative sheep-associated MCF gammaherpesvirus.