

Program: Robotic Milking Systems for Dairy Cows in Ontario: Economics, Milk Quality, Nutritional Enticers



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In Partnership With Robotic Milking Industry Dairy Farmers

Project Objectives:

1. To compare robotic milking with conventional parlour milking for costs and production efficiency.
2. To monitor raw milk quality and to locate the sources of deterioration if it exists.
3. To evaluate nutritional incentives for effectiveness at enticing cows to the robot.
4. To inform dairy producers of economic, quality, and enticer benchmarks for robotic milking.

Methodology

22 of the 23 farms in Ontario who had robotic milking systems at the time agreed to participate in this study. These farms were visited twice, once in the winter and once in the summer of 2003. The farms were photographed, barn labour activities observed, and milk and water samples collected. Farmers and manufacturers were surveyed on installation, repair and maintenance costs of the new robots and new parlours. Farmers were also surveyed on volume of milk produced, SCC and Bactoscan data. The robotic milking farms were 'twinning' with parlour farms for comparison.



Results:

- robots work well in Ontario
- parlour labour time is 3.28 min/cow, compared with a labour time of 1.02 min/cow for robots
- milk yields for robots and for parlours showed no difference
- all water samples were potable on all farms
- it is possible to positively influence robot attendance with nutritional enticer
- Robotic milking was found to be a competitive alternative to parlours for herds of 60 or 120 cows
- Robots will save on labour and provide a 'lifestyle change,' which will be seen as good value for the money by some
- Robotic milking may decrease milk quality levels, ie bacteria and freezing point, unless extra attention is paid to environmental hygiene. However there was more variability within milking systems than between milking systems

Support Appreciated from:



DAIRY FARMERS OF ONTARIO



Ontario

Ministry of Agriculture,
Food and Rural Affairs



Community Benefits Include: Reduced cost of production, better quality of working conditions, improved environmental quality