



PROJECT 2013-2018

EVALUATING ALTERNATIVE THERAPIES FOR THE TREATMENT OF CLINICAL MASTITIS ON ORGANIC DAIRIES

Principal Investigators:

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Number of students trained (MSc, PhD, Post-Doc):

3

TOTAL BUDGET

\$123,185

INVESTMENT PARTNERS



Agriculture and Agri-Food Canada



OBJECTIVE:

The general objective was to identify the non-antibiotic strategies for treatment of clinical mastitis and for treatment and prevention of intramammary infections at drying off in dairy cows.

KEY OUTCOMES:

- Results indicated that no alternative or non-antibiotic methods have demonstrated efficacy for the treatment of clinical mastitis.
- The study also confirmed that homeopathic treatments are ineffective.
- Results indicate that administration of bismuth subnitrate internal teat sealants (approved by Health Canada) used without antibiotics is a very efficient non-antibiotic method for the prevention of mastitis at dry-off in organic herds. Risk of new intra-mammary infection when using an internal teat sealant was reduced by 53% compared to untreated quarters and by 19% compared to an antimicrobial treatment. This approach is, therefore, more efficient than antibiotic therapy for preventing new infections.
- To date, no other alternative approaches, including homeopathy, biological products or vitamins administration, have demonstrated consistent efficacy for the treatment or the prevention of intramammary infection at dry off in clinical trials.

BENEFITS TO THE DAIRY INDUSTRY

- Confirmation of the efficiency and the benefit of using bismuth subnitrate internal teat sealants for the prevention of new intramammary infections.
- Demonstration that currently available therapies are inefficient for clinical mastitis treatment and at dry-off.

ORGANIC SCIENCE CLUSTER WEBSITE

dal.ca/faculty/agriculture/oacc/en-home/organic-science-cluster/OSCII.html