

Food Safety on the Farm

FALL 2001

FACT SHEET #8

Living WITH Livestock PRODUCTION



Introduction

Today's farmers are in the business of producing food and they take pride in producing a safe, high quality food product. Consumers are entitled to a safe food supply and Manitoba livestock producers have a responsibility to ensure this happens. "Gate to Plate" programs that ensure food quality and safety are now either in place, or are being put in place, for all livestock groups.

Food safety on the farm addresses the issues of chemical, microbiological, and physical residues in food of livestock origin.

Chemical Residues

Pharmaceutical products, antibiotics, growth hormones, feed additives, and pesticides are used routinely in raising livestock. When used properly, and when drug withdrawal times are followed, chemical residues in the animals are within the limits set by Health Canada. Carcasses of food producing animals and poultry at slaughter are routinely sampled for residues. If residues are found to exceed these limits, the carcass is destroyed and the producer is disciplined. Similar control measures are in place for dairy and egg products.

Producers, with appropriate professional and technical advice, utilize animal health products in a responsible manner. Drug withdrawal times are closely monitored, and animals, or their products, are not marketed until recommended withdrawal times have elapsed.

Health Canada's allowable limits for chemical residues in foods are set at very low levels. Manitoba's livestock producers consistently produce food products that more than meet those safety levels.

Micro-biological Residues

Micro-biological concerns include bacteria, viruses, protozoa, and parasites. Some microbiological residues in food may trace back to the farm, and some may be introduced during the processing and handling stage. Some may be introduced in the



consumer's home due to improper handling and preparation of food.

At the farm level, management practices are followed to reduce or eliminate many disease-causing agents. For example, modern poultry, pork and beef production practices have eliminated most parasites. The major area of concern is bacterial organisms such as E. coli, Campylobacter, and Salmonella. Good sanitation and biosecurity at the farm level are essential to reduce these organisms in livestock. Keeping animals healthy, and keeping other animals and people out of the herds and flocks, are essential to reduce levels of pathogenic bacteria. Proper manure management, as described in the Farm Practices Guidelines, and keeping animals clean help to reduce the dangers from organisms such as Salmonella, Cryptosporidia and E. coli.

Proper handling of animals through the transportation, pre-slaughter and slaughter phases is also integral to reducing microbiological contamination of the food product. Every step in the process is important in minimizing the risk.



Physical Residues

Physical residues, such as broken needles, occur rarely in meat, but are very dramatic when they do occur. Broken needles may happen as a result of poor restraint of animals while injecting, wrong injection site location, or equipment that is of poor quality or poorly maintained.

Broken needles can be avoided by:

- Properly restraining animals during treatment;
- Injecting medication only in the neck area;
- Using high quality equipment;
- Discarding bent or damaged needles;
- Using needles only once;
- Training personnel to properly administer medications; and
- Where possible, administering medications in feed and water.

If a needle is broken, the animal must be permanently identified so that it can be tracked through to slaughter and the needle removed. Packing plants have metal detectors in place on the processing line to detect needles in the muscle. Newer technology is developing materials that are 100% detectable by these magnets.

Other physical residues such as growth implants in beef cattle do not occur because the implant site - the back of the ear - does not enter the food chain. Microchip identification systems are not used in food-producing animals to avoid any chance of chips ending up in the food chain.

On-Farm Food Safety Programs

The major livestock commodity groups, including beef and dairy cattle, swine and poultry, have instituted on-farm food safety programs. Bison and sheep producers are developing national programs. These programs function in accordance with Hazards Analysis Critical Control Points (HACCP) principles of identifying potential problems, correcting them and monitoring them. Some programs are voluntary; some are now becoming mandatory. These programs call for producers to join, be accredited, and then be validated, generally by a professional such as a veterinarian. The On-Farm Food Safety programs are coordinated by a not-for-profit corporation structured under the auspices of the Livestock and Livestock Products Act. As the programs develop and mature, they will be audited and reviewed to ensure ongoing compliance.

Summary

- Manitoba livestock producers have a responsibility to produce safe, high quality food products of animal origin. This responsibility is being met through on-farm food safety programs that stress:
 - good production practices,
 - proper record keeping,
 - veterinary-client-patient relationships,
 - animal identification and tracking

Further Information

For further information about livestock production, refer to other titles in the series: "Living with Livestock Production" available from Manitoba Agriculture and Food offices.

1. Health Issues and Livestock Production
2. Livestock Odours – Sources, Concerns & Solutions
3. Surface Water Issues
4. Nitrates in Soil and Water
5. Land Application of Manure
6. Siting Livestock Production Operations
7. Understanding Anti-microbial Resistance
8. Food Safety on the Farm
9. Livestock Operations and Groundwater Quality

More detailed information can be found at

www.gov.mb.ca/agriculture/livestock.

Copies of the Farm Practices Guidelines* for Hog Producers in Manitoba (1998 edition) and Farm Practices Guidelines for Poultry Producers in Manitoba (2000 edition), are available from Manitoba Agriculture and Food offices in rural Manitoba and from Agriculture Publications at 8th floor, 401 York Avenue, Winnipeg, Mb. R3C 0P8. (Fax: 204-948-2498)

*The 1995 edition of the other titles of the series are presently available; they are being updated.