

# Biosecurity Manual — A Small Investment With A Big Return

**BY PAT PURCELL**  
UNIVERSITY PARK (Centre Co.) — Good herd health is the foundation of an efficient and profitable dairy farm. As the profit margin continues to narrow on Northeast dairy farms, it is not enough to correct animal health problems. Today, profitability hinges on prevention.

Prevention begins with farm biosecurity. Biosecurity is the management practice which protects the herd from the entry of new diseases and minimizes the spread and/or adverse effects of diseases in the herd. Herd health may be a familiar concept, but biosecurity must be the focus for every farmer who plans to continue farming into the 21st century.

The only thing predictable about the dairy industry is that it will change. Just how it will change, few can be sure. To plan for a healthy profit margin farmers are scrutinizing management practices and searching for more ways to cut costs.

While milk production is impor-

tant, it takes second place to costs. The farmer who can increase milk production by 2,000 pounds will not be any farther ahead if his per CWT costs have increased beyond his return. The focus on biosecurity puts the farmer's management skills under the microscope to detect those unhealthy practices which may be robbing precious dollars from the dairyman's enterprise. Biosecurity, is the knot that binds together good herd health to a healthier return on the farmer's investment.

With this goal in mind the "Pennsylvania Dairy Health and Biosecurity Manual" was put together by Larry Hutchinson, D.V.M., PSU Extension Veterinarian; Tina L. Smith, D.V.M., assistant extension veterinarian; and Carolyn M. Burns, veterinary extension specialist.

Copies of the Pennsylvania Dairy Health and Biosecurity Manual are available for \$8.00 from Penn State University, Publications Distribution Center, 112 Agricultural Administration

Building, University Park, PA 16802.

The manual's notebook design allows for quick reference and the easy removal or addition of pages for constant updating. It is divided into eight sections.

- Checklist
- Control of New Arrivals
- Control of Farm Traffic
- Separation of Groups
- Sanitation and Disinfection
- Preventive Medicine
- Disease Resistance
- Meat and Milk Quality

#### Checklist

The checklist is to be followed for every new animal on the farm. Its design helps the farmer plan, organize and carry out necessary procedures at the proper time from birth to 24 months and beyond. The checklist includes:

- A. Control of new animals
- B. Calf and heifer calendar (birth to 24 months)
- C. Cow calendar
- D. Environmental Management
- E. Vaccination program
- F. Parasite Program

#### G. Quality assurance

The remainder of the manual is a series of information sheets on health and biosecurity subjects and practices. This information explains the checklist and is divided into seven sections covering:

- Control of New Arrivals
- Control of Farm Traffic
- Separation of Groups
- Sanitation and Disinfection
- Preventive Medicine
- Disease Resistance
- Meat and Milk Quality

#### Control of New Arrivals

This section discusses the value of a health certificate, closed herd, and animal isolation in addition to bovine leukosis and Johne's disease.

The manual lists 15 steps necessary to eradicate Johne's disease from the herd. According to the manual, "in known infected herds, it is possible to eradicate Johne's disease if a program is carefully implemented. Eradication has been achieved in both Johne's vaccinated and non-vaccinated herds.

#### Control of Farm Traffic

This section offers information on the identification and removal of the three species of birds which create unsanitary conditions for humans as well as livestock. Pigeons, house sparrows and European starlings consume and contaminate food and are responsible for transmitting a number of diseases to livestock and poultry. The accumulation of droppings is corrosive to equipment and birds cause additional damage by destroying building insulation.

To avoid bird problems limit availability of food and water by:

- Cleaning up spilled grain.
- Storing grain in bird proof containers.

When possible, using covered feeders that exclude birds.

The best way to reduce bird problems in buildings is to exclude them from the buildings. This can

be costly initially, but in the long run it is the most cost effective.

#### Rats and Mice

"Rodents can spread or accelerate the spread of established diseases from contaminated areas to uncontaminated areas via their droppings, feet, fur, urine, saliva or blood. Rodents travel through infected feces of isolated sick cows and then contaminate the food and water of healthy animals several hundred feet away."

Rodents cause a great deal of economic loss from gnawed feed sacks, contaminated feed and through transmission of disease. Rodents multiply quickly making it important to monthly check rodent populations and continue control methods. The manual includes recommendations for control and list supply houses.

Recommendations are also included for visitor control. People spread contaminated material as much as birds and rodents.

#### Separation of Groups

Calf and heifer housing is examined including individual hutches and group hutches. Building plans are also included for hutches, gang hutches, open front shed and gated freestall barn.

#### Sanitation and Disinfection

This section discusses proper procedures for disposal of dead animals, treating foot rot, manure management and disease control and sanitation of maternity and bedding. Also, included is a list of common disinfectants, their characteristics and uses.

#### Preventive Medicine

Identification, treatment and eradication of ringworm and contagious mastitis and also to external parasites including lice, mange, grubs and to such internal parasites as flatworms, protozoa, and roundworms.

#### Disease Resistance

Perhaps because of its plentiful

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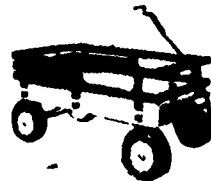


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