Considerations for control include 1) exclusion from the farm of any people, vehicles or equipment that have no business there; 2) controlled movement between buildings on a farm; 3) routine disinfection or sanitation of buildings and equipment; 4) provision of showers and changing rooms for employees that promote personal hygiene and separate work clothes from street clothes; and 5) regular training of employees on the needs and practices of biosecurity.

Disinfectants and sanitizers all have their own properties and conditions under which they should be used. When using them, make sure that the appropriate chemicals are being used in the correct manner.

Conclusions

Biosecurity is a critical part of the management plan of any modern livestock or poultry operation. The development of a biosecurity plan requires a close relationship with your veterinary staff and industry groups to know what diseases and practices are current.

In order to protect any farm from disease, it is helpful to know the current health status of the operation. This can be accomplished by routine testing of the health of animals on the farm (e.g. through a herd or flock health program) and through the investigation of disease outbreaks. Blood testing for specific diseases and submission of dead animals for examination are among the tools available for this work.

For more information, please contact your Regional or Poultry Veterinarian (Animal Health Division):

Regional Veterinarians:

St. John's: 709.729.6879
Carbonear: 709.945.3007
Clarenville: 709.466.2808
Pynn's Brook: 709.686.2672

Poultry Veterinarian:

Carbonear: 709.945.3007

Other information pamphlets are available online from the Department of Natural Resources at:

www.nr.gov.nl.ca/agric/

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Newfoundland Labrador

Biosecurity in the Livestock and Poultry Industries

BIOSECURITY AREA

NO ENTRY WITHOUT OWNER'S PERMISSION

Biosecurity refers to the protection of livestock and poultry from diseases that may exist elsewhere in the industry or indeed, in other countries, that if introduced to a farm can cause significant economic losses for the individual farm, and in extreme cases, for the domestic or national industries.

Well known diseases of international status include avian influenza for the poultry industry and foot-and-mouth disease for the cattle industry.

There are also a number of diseases that are better known to the industries affected which exist in Canada and, if introduced onto a farm, will result in economic losses but will have no other trade related impact.

This pamphlet details the principles of biosecurity and uses a few diseases as examples. Any specific biosecurity plan developed for an industry or farm would be worked out with your local or provincial animal health representatives.

Contacts are provided at the end of this pamphlet.

Principles of Biosecurity

There are numerous bacteria, viruses, parasites and newly discovered infectious agents such as prions that may pose a health and economic risk to a commercial livestock or poultry business. In some cases, these may also pose a health risk to farm employees or consumers of food from the farm.

These diseases spread either by **"biological vectors"** (animals or people in or on which the disease can multiply) or **"mechanical vectors"** (people, animals or objects that can carry disease agents from place to place but on which the disease does not multiply).

As each type of infectious agent has its own particular characteristics, a biosecurity plan based on a single disease of concern will be different than one which attempts to cover all disease risks. It is generally recommended to adopt an "all-risks" approach to biosecurity, as this helps to instill biosecurity as a business principal of the farm and increases protection against the unknown diseases of tomorrow.

Here then are the principles of biosecurity from which a biosecurity plan can be developed:

1. Risks from Other Animals

Generally animals of the same species pose the greatest risk of introducing new diseases as they carry all of the same diseases as the animals being raised. For example, on a poultry farm the introduction of additional chickens raised in situations with less disease control (e.g. not coming from a controlled hatchery, raised in an outdoor setting) pose the largest disease threat. One of the diseases that can be spread in this manner is infectious laryngotracheitis (ILT).

In some cases, the same species of animal may exist in the wild state which could pose a disease threat if permitted to enter the farm or pens of the domestic animal. An example of this would be wild mink that could bring diseases like Aleutian disease onto a commercial mink ranch.

Prior testing of new animals before entry onto the farm and maintenance of a quarantine site for such new arrivals are to be considered. In some industries, "all-in, all-out" raising is the norm where complete clean-out and disinfection is carried out between groups of animals raised in the same barn. In some cases, if a disease exists on a farm, it may require segregation of infected animals from non-infected and controlled movement between buildings to reduce risks of disease spread.

In addition to animals of the same species, animals of other species can carry diseases that can be spread to farmed animals. These could be other domestic or wild animals. For poultry, wild birds of numerous different species (including seagulls, crows, starlings, sparrows, pigeons and various waterfowl) can carry diseases onto a farm. One of the diseases of current concern from such wild bird species is avian influenza.

For all animal industries, wild birds, rodents, barn cats and dogs and insect pests (flies, fleas, lice, etc.) pose a threat for disease spread.

The exclusion of such animals will require a combination of fencing, building security and control of feed spillage, depending upon the actual industry involved.

2. Risks from People and Equipment

People and equipment that enter a farm may carry diseases with them. Most commonly this involves contamination of clothing, trucks, feed and other equipment. The highest risk often comes from those that have recently been on an infected farm and are now on your farm.

This is a very difficult risk to manage as disease agents are microscopic and therefore cannot be seen on objects. Contamination by manure may be an obvious sign but other body fluids (saliva, urine, blood) can also carry disease and may not be as visible.