

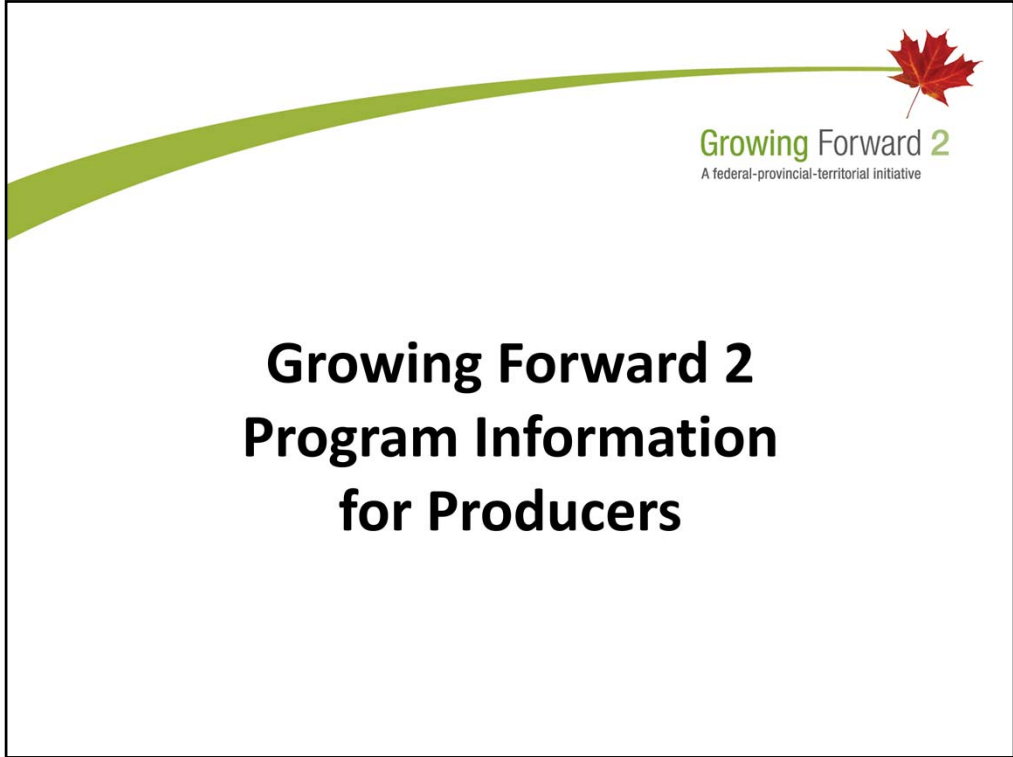
Livestock Biosecurity Workshop

for Implementing the National On-Farm Biosecurity Standards



Workshop Overview

- Growing Forward 2 Program Information
- Overview of What Biosecurity Is and Why It's Important
- Primary Biosecurity Control Points
- Case Study
- What to Do with What You Learn Today



**Growing Forward 2
Program Information
for Producers**



Growing Forward 2 - From Ideas to Success

Five-year federal-provincial-territorial initiative, designed to encourage innovation, competitiveness and market development

Flexible and practical programming options to help producers, processors, organizations and collaborations to grow profits, expand markets and manage risk

Focused on innovation, Growing Forward 2 (GF2) is designed to contribute to the economy, help the agri-food industry be more competitive and enable you to reach your business goals

Grow Your
Profits

Expand Your
Markets

Managed
Shared Risks

4



Ontario's Growing Forward 2 Program Framework

Areas of focus:

- Environment and Climate Change Adaptation
- Animal and Plant Health
- Market Development
- Labour Productivity Enhancements
- Assurance Systems (food safety, traceability, animal welfare)
- Business and Leadership Development

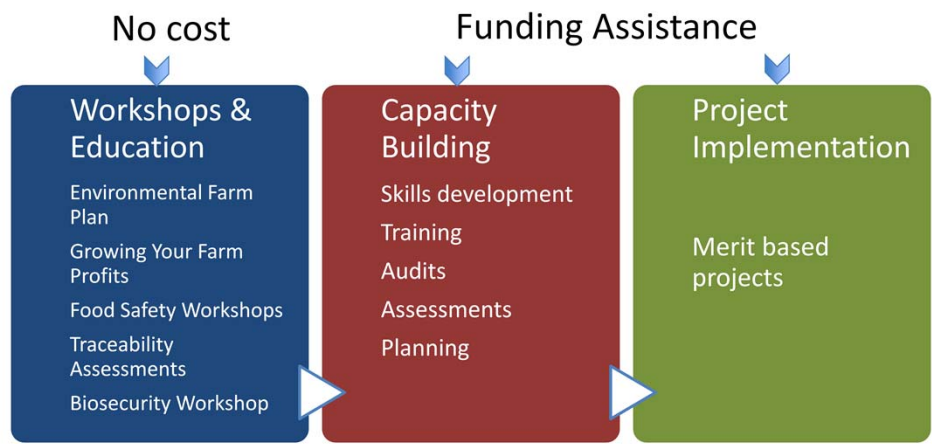
❖ **Innovation is a key component of all areas of focus**

Desired Outcomes:

- Use best business and leadership practices
- Use energy, water and other inputs efficiently
- Better able to adapt to climate change
- Maximize labour productivity
- Access new and emerging markets
- Retain and expand existing markets
- Market products by adopting assurance systems and/or adding value such as agri-products and food for health to meet buyer demand
- Ability to respond quickly & effectively to risks
- Reduce key risks



Growing Forward 2 Program Components





How to Apply

- Enroll through GF2 Client Portal to create your profile using the link at www.ontariosoilcrop.org
- Complete application(s) online through the same link
- Paper enrolment and application forms will be available
- “Capacity Building” and “Implementation” applications and Program Guides are now available





Who to Contact

Producers	OSCIA Tel: 1-800-265-9751 ontariosoilcrop.org
Processors	OMAF Tel: 1-877-424-1300 ontario.ca/growingforward2
Organizations and Collaborations	AAC Tel: 519-822-7554 adaptcouncil.org



ontario.ca/growingforward2
1-877-424-1300

Intake dates are posted on the above noted websites



Producer Workshops

Currently Offered:

- Environmental Farm Plan
- Grow Your Farm Profits
- Biosecurity
- Traceability
- Food Safety



Biosecurity Workshop Goals

- Increase awareness and understanding of biosecurity
- Facilitate implementation and adoption of national biosecurity standards



On-Farm Biosecurity

What is it and why is it important to producers?



What is biosecurity?

- The protection of livestock and crops from any type of infectious agent
 - Virus
 - Bacteria
 - Fungus
 - Parasite



There is sometimes confusion between biosecurity, food safety and animal welfare and whether they are the same, similar and/or overlap in their scope. Good operating practices in any one of these areas certainly facilitate the other two however each has a different focus. In simplified terms:


- food safety focuses on protecting human health;
 - biosecurity focuses on protecting the **health** of animals and plants; and,
 - animal welfare focuses on **humane treatment** of animals.
-
- The term “biosecurity” can conjure up images of surveillance systems, security fences, complicated sanitizing processes, audits and inspections
 - Much simpler than that – many things you are already doing around your farm
 - Doesn’t have to be expensive or complicated



National Biosecurity Standards

- National biosecurity standards have been developed for several commodities – poultry, swine, beef, dairy, sheep, goats, mink, bees, potatoes and grain/oilseeds

- National Standards are guidelines on how to implement on-farm biosecurity



- Standards are developed by CFIA with active industry involvement
- All commodities will eventually have national biosecurity standards
- Standards are **voluntary**

- Exception is the National Swine Farm Level Biosecurity Standard which was developed by industry and then recognized by CFIA



Why should you care?

Diseases and pests:

- reduce productivity
- increase veterinary and labour costs
- affect farm incomes and animal welfare
- close export markets
- affect domestic consumption
- reduce prices that producers receive for their animals and products

- Some herd/flock owners spend thousands of dollars each year fighting disease outbreaks.
- While diseases that lead to livestock mortalities are the most obvious and urgently treated, there are a large number of production limiting diseases which have a significant affect on the economic viability of the farming operation.
- See also – text boxes on pages 18 and 19 in OLPC Livestock Biosecurity Guide regarding 1996 Stayner Anaplasmosis outbreak and 1952 FMD outbreak
- According to a report prepared for the Canadian Animal Health Coalition, the direct economic cost of BSE (found in May 2003) to the Canadian livestock industry by early 2004 was estimated at nearly \$3.3 billion. An additional loss in equity to the cow-calf sector was estimated at \$3.0 billion, for a total economic impact from BSE of **\$6.3 billion**.




Zoonoses and Emerging Diseases


- Some livestock diseases and pathogens are also capable of infecting humans
- 61% of all existing human pathogens are zoonotic (transmissible between animals and people)
- 75% of new, emerging infectious diseases are zoonotic
- A new disease emerges every four months

Source: IFPRI (International Food Policy Research Institute) and ILRI (International Livestock Research Institute), Agriculture for Improved Nutrition and Health (Washington, DC, and Nairobi, Kenya: IFPRI and ILRI, 2010). Available at <http://crp4.cgxchange.org/>, refer to page 44.

- These stats include diseases like rabies, malaria, influenzas, etc.




- First line of defense - **“keep disease out”**
- If an issue arises - **“keep it in”** to prevent its spread
- **“Shut it down”** as quickly as possible to reduce its impact



The photograph shows a white sign with green and red accents. The sign reads "VISITORS PLEASE RESPECT FARM BIOSECURITY" and includes a line for contact information: "Please call at the house or phone: _____". The sign is placed in a snowy field with trees in the background.

- The basic concept is to “keep disease out” as a first line of defense but if an issue arises on your farm you want to “keep it in” to prevent its spread and “shut it down” as quickly as possible to reduce its impact on your production and possible impact on your commodity.
- Some diseases are very difficult to eradicate once they become established. In certain instances, producers may only be able to “control” disease unless a significant financial investment is made to eliminate it from their animals.



Spread of Disease and Pests

- through diseased animals or animals incubating disease;
- through animals other than livestock (pets, wild birds and other wildlife, vermin and insects);
- on the clothing, shoes and hair of visitors and employees moving from farm-to-farm, between animal groups or production areas on-farm;

- High-risk visitors include veterinarians, livestock haulers, livestock-owning neighbors, and anyone else who has close contact with animals and their bodily discharges.
- Wildlife can also transfer disease including rabies, Leptospirosis or Salmonellosis. This includes deer, birds, coyotes, wild dogs, rats and mice.



Food, plant material and animal products from other countries, including many common souvenirs, could introduce some of the world's most serious pests and diseases into Canada, threatening our valuable agricultural industries and environment.

These include things as diverse as:

- foods, such as sausages, potatoes and fruit;
- homemade articles, such as feather boas, or items made from plants or wood;
- live birds; and,
- plant cuttings from family gardens.

Food can carry animal diseases or plant viruses. Plants and plant products can carry invasive alien species, such as insects, harmful micro-organisms, viruses, fungi and bacteria.

Example: Refer to **Drumming Up Anthrax** on page 27 of the OLPC Livestock Biosecurity Guide



Spread of Disease and Pests continued...

- in contaminated feed, water, bedding and soil;
- from the carcasses of dead animals and aborted placentas;
- on contaminated farm equipment and vehicles; or
- in airborne particles and dust blown by the wind and exhaust fans.

- See example on following slide re ATVs



Farm Equipment, Vehicles, ATVs, etc.



- Photos show the under carriage of an ATV used for crop scouting

Seeds and soil can stick to tires, bumpers, wheel wells or the underside of a vehicle and sometimes travel great distances before falling off. Montana State University conducted a research trial on the role vehicles play in the spread of invasive weed species. They found that even after 160 miles, many seeds stayed attached. Wet conditions make it easier for seeds to be picked up by a vehicle. If seeds are lodged in mud that dries on the vehicle, they can travel almost indefinitely or at least until it rains again and the road surface is wet.

The study also found that thousands more seeds per mile were transported by vehicles during the fall than in the spring. These findings also apply to farm owned vehicles, recreational trail users (running through farm property) and to service suppliers who may be using ATVs for crop scouting or soil sampling.

To prevent the spread of weeds and soil borne pests, wash your vehicle frequently, especially after driving off-road or off-trail or along roads or fields bordered by high densities of weeds.



Video

<http://www.ontlpc.ca/videos.php>

Key Principles of Disease Spread and Control

Dr. Bruce McNab



Primary Control Areas

- **Access Management** (people and vehicles);
- **Animal Health Management** (poultry and livestock);
- **Plant Health Management** (protecting crops against insects, weeds and disease); and
- **Operational Management** which includes sanitation of equipment and buildings, wildlife and pests, training and documentation.



Access Management




Visitor Control


- Post restricted entry signs
- Lock gates and building doors



- “Visitors” include a broad range of people – feed deliveries, veterinarians, livestock haulers, neighbours, 4-H groups, sales reps, equipment repair people, AI/embryo/ultrasound technicians, etc.
- Signs are a reminder – some people just don’t think about it
- Ensure that gates and building doors are locked where appropriate



- Maintain a visitor log book
- Knowing who has been on your farm, where they have been and where they are going will be valuable information in the event of a disease outbreak



- You also need to be able to track those who have been in your barns
- A binder or clip board with a pen or pencil attached is all you need
- If there is a federally reportable disease, CFIA could ask you about people, livestock and vehicle movement on and off your farm for the previous three weeks (two critical periods) – also feed and manure movement
- Think about all the traffic in and out of your driveway over the last three weeks –courier, feed truck, heating fuel, neighbours and friends, equipment repair or service personnel, veterinarian or AI technician – could you remember everyone?



- Designate visitor parking area and entrance
- Post a “Visitors’ Entrance” sign
- Locate a drop box a sufficient distance away from the barn entrance for courier deliveries, bills and receipts

- Vehicles and people travelling between farms can spread disease on footwear, hands, hair and clothing
- Designated visitors parking area away from the barn – preferably gravel so not tracking manure, mud/soil or plant material
- Do not locate parking under an air outlet or exhaust fan
- Ensure laneways and roadways used by visitor vehicles are kept free of manure and soil
- Identify the entrance you wish visitors to use as the access point to your facilities.



Footwear

- Have designated boots/footwear that do not leave your farm
- For you, your family and visitors



- Wear other shoes or boots if you are visiting another farm, sales barn, fair, etc. and clean them when you come home
- If you don't have boots for visitors, supply plastic covers
- This includes veterinarians and AI technicians
- Footbaths are difficult to maintain and use effectively
- Boots must be scrubbed free of manure or other organic material before stepping into the footbath
- Contact time for many disinfectants are five to 10 minutes! Have you ever seen anyone stand in a footbath for five to 10 minutes?
- Must be changed regularly – contaminated footbaths will **increase** boot contamination during cleaning



Hand Cleaning

- Provide hand washing facilities or a bottle of hand sanitizer for visitors
- Insist they use it upon entry and exit



- When using a hand sanitizer, be sure to use enough to cover all surfaces of your hands, including between your fingers, and rub your hands until they are dry.
- Also, the alcohol content of the sanitizer must be at least 60% to be effective.
- Hand sanitizer does have an expiry date – be sure to check it!



Restrict Contact with Animals

- Keep visitors out of animal pens and feed alleys and do not allow direct contact with animals if not essential



- When shipping livestock from your farm, haulers should not be allowed inside your facilities or have contact with livestock remaining on the farm **ALSO** do not go into the livestock trailer as you will transmit any pathogens from inside the truck back into your barn
- If visitors are from other countries or have travelled abroad and visited farms, find out where they have been and when.
- Consult with your veterinarian to determine if they should be restricted from entry to your farm and, if so, for how long to minimize the potential introduction of disease.
- If you have travelled internationally wash your clothes, shower and disinfect all footwear before coming into contact with your livestock.
- Use a disinfectant wipe on personal items such as luggage and cameras
- If possible, avoid contact with animals for at least 72 hours (three days) after returning to Canada.
- Remember, it is not just farmed animals which can pass on disease, it includes contact with wildlife, pets and zoo animals (including petting zoos).



Animal Health Management



Know Disease Status of New Animals



- Purchase replacement animals from herds/flocks of known disease status.
- Isolate any new animals or animals returning to the herd/flock (from shows, fairs, etc.)



- The most common method of disease transmission amongst animals is directly from an infected animal to an uninfected animal
- Animals that are recently recovered or appear healthy can still be a source of disease pathogens
- Treat new animals with appropriate parasite treatments and vaccinations BEFORE introduction into the resident herd/flock.
- Isolate any new animals or animals returning to the herd/flock from off farm (shows, fairs, etc.). Consult with your veterinarian on appropriate isolation period.

Separate Pens

- Establish separate pens for isolation, sick livestock, new arrivals and birthing pens.
- Sick pens should only be used for sick animals.



- Sick pens should only be used for sick animals and contact should be restricted between sick pens and maternity pens.
- Clean all manure from the pens and disinfect after use.



- House young livestock away from older animals where appropriate.
- Clean and sanitize nursing bottles and buckets after each feeding.



- For some types of operations, it may be possible to move livestock through pens using an all-in-all-out approach.
- Separate feed and water troughs between different pens if possible.
- Note: bottom photo shows a bottle washer



- Minimize disease spread by working with livestock from youngest to oldest and healthy to sick.
- Prevent nose-to-nose contact with animals from neighbouring pens and farms





Monitor Herd/Flock Health

- Establish a herd health program
- Observe and inspect livestock daily for early detection of disease
- Record treatments and mortalities



- Early detection of a disease and isolation or removal of the individual from the herd/flock is vital to minimizing its impact.
- Ask your veterinarian what you should consider to be warning signs – “red flags”
- Ensure (don’t presume) employees and family members are knowledgeable in recognizing signs of disease. Talk to them about what you consider to be warning signs.
- Contact a veterinarian if you see unusual rates of disease or unexplained death.
- Review your National Biosecurity Planning Guide for specific diseases of concern.
- Establish a herd/flock health program including vaccination and medication protocols – write it down – discuss it with your veterinarian.
- By reducing disease, you also reduce the necessity of using antibiotics. Everyone who has access to antibiotics, whether for human or animal use, must act responsibly and prudently. Antimicrobial resistant bacteria are an increasing concern. Bacteria become resistant to entire families of antibiotics because they evolve to resist the way the antibiotic works, so this means that antibiotics approved for use in livestock, that are in the same family as antibiotics only used for humans, will still contribute to the resistance of bacteria to human antibiotics.



Self-Evaluation Checklist

- Spend 10 minutes completing the handout
- Share within your group what biosecurity practices you follow – Any handy tips for others?
- What are your challenges/hurdles?

- Ask the full group to share any practices or tips they heard from others that they might consider implementing on their farm



Plant Health Management



- Biosecurity for plants is just as important as for livestock



- Use certified 'free from pests' seed or propagation material and use trusted suppliers.
- Check plant material coming on or moving off your property for disease, weeds or insects
- Plant resistant or less susceptible varieties, when available.


On-Farm Markets, Farm Gate Sales and Agri-Tourism

If you operate a pick-your-own or on-farm retail operation, give special consideration to your customers' movements and potential for transmitting pests. Ensure there is a designated parking area and the areas where they are allowed are clearly marked. Toilet and hand-washing facilities should be provided and ask visitors to wash their hands before handling your plants. If you allow customers to bring their own used containers, they may contain old plant material which could harbour a pest.




- Use integrated pest management (chemical, biological, physical).
- Manage pesticide applications carefully - spray drift can impact crops on which the pesticide is not registered.





- Maintain cropping records for each field
- A crop rotation plan will help break the pest cycle.
- Properly dispose of plant debris




- Cropping records should include: crop, variety, seeding rate and date, pesticide use, fertilizer and manure use (date applied and rate), irrigation, etc.
- Develop and implement a disposal system for plant debris to remove all sources of the pest, e.g. weed seed, crop wastes, cull piles, dropped fruit from the field or orchard. Some insects and disease may overwinter in crop refuse.




- Keep cropping equipment clean - yours and others coming on to your farm



- Keep your equipment clean, wash and sanitize equipment to be shared with neighbours and insist on clean equipment coming onto your farm including custom applicators' equipment.
- Vehicles and farm equipment can spread pests from farm to farm through insects, soil and plant debris on their tires, fenders and undercarriages.
- If you provide cropping services for other producers (planting, tilling, spraying, harvesting, etc.), you should consider yourself a custom operator and have written procedures for cleaning equipment when moving from farm to farm.



- Routinely scout your crop
- Set target pest thresholds
- Report any unusual insects, weeds or diseases



- Put in place a routine crop inspection program (can be conducted by producer, employees or contracted crop scout) and record pest surveillance activities, even when nothing is found.
- Determine the target thresholds to indicate when to apply pesticides to prevent economic loss. Some damage to the crop may be tolerated as long as it does not exceed the cost of the control or have wider negative implications for pest spread/establishment.
- Report any unusual pests to your crop advisor, crop specialist or local office of the CFIA.
- Keep up to date about any pest pressures in your area. The more information you have, the better able you will be to respond. A pest event in your area should increase your level of biosecurity preparedness or even trigger your pest response plan.
- The early detection and containment of a weed, pest or disease is essential to prevent its spread and assists in the eradication efforts by agriculture authorities. It could help save an entire industry.



Operational Management

Equipment and Facilities



Feed and Water

- Test water for bacterial contamination
- Ensure feed and water is kept clean
- Ensure clean teats and udders for nursing young




- Water sources and delivery systems have the potential to expose animals to disease-causing pathogens. Aquatic environments (ponds, lakes, etc.) cannot be controlled and are potential reservoirs for pathogens. Use “closed” water delivery systems where ever possible.
- Ensure feed and water is kept clean; minimize contamination by manure and urine.




Deadstock

- Remove immediately and dispose according to provincial and municipal protocols (licensed collector, bury, compost)
- Deadstock pickup should be away from the barn
- Prevent scavenger access and leakage of fluids
- Appropriately dispose of contaminated bedding, manure, feed, etc.

- Deadstock truck should not have to enter the controlled access zone around your production area
- Design and locate temporary containment and disposal areas in a way to prevent access by people, domestic animals, wildlife and pests



- Routinely clean and disinfect footwear
- Have different footwear for on and off farm
- Designate equipment for clean jobs (feeding) and dirty jobs (manure handling and carcass disposal)



Example: Mark your forks and shovels with coloured duct tape or paint to identify which is for manure and which is for feed. This applies to tractor buckets as well. You should avoid scraping manure with the same bucket used for taking feed of out of the bunk.

Clean Equipment

- Keep your equipment clean – machinery and tools such as hoof trimmers, dehorner, etc.
- Avoid sharing manure handling equipment with neighbours



- Vehicles and farm equipment can spread disease from farm to farm through contaminated material on their tires, fenders and undercarriages.
- Wash and sanitize equipment to be shared with neighbours and insist on clean equipment coming onto your farm.
- Avoid sharing manure handling equipment with neighbours.
- Require livestock conveyances to be cleaned and disinfected prior to arriving at the farm.
- Ask that your feed and other input suppliers have clean delivery vehicles and inquire whether they have an established protocol for cleaning and disinfecting their trucks.




Livestock Transport



- Source of pathogens when shipping and receiving
- Plan pick-ups/deliveries by travelling from herds/flocks of higher to lower health status



- This applies to farmers trucking their own livestock as well as commercial transporters.
- Plan the traffic flow within and between farms/units to minimize the introduction of pathogens. The sequence of pick up or delivery should minimize contamination by travelling from herds/flocks of higher to lower health status.
- Vehicles dedicated to specific types of transport are encouraged for certain species, for example, PRRS negative pigs.
- Transporters delivering animals to farms should maintain a log documenting their route and stops.



- Haulers should not be allowed inside your facility or be in contact with livestock remaining on farm
- Prevent backward movement of livestock or bedding/manure from truck when loading

- Load outs should be built so that trucks with livestock do not directly contact the building.
- Install facilities to prevent the backward movement of livestock when loading.
- Allow no truck material (bedding, manure) into the barn. A buffer area between the truck contact zone and the barn exit reduces the risk.
- A protocol for communicating with barn staff/farm owners at entry is needed so that the driver does not have to go searching in the barn or buildings for someone upon arrival. This is true for all deliveries – parcels, feed, equipment parts, etc.



- Verify commercial haulers have set biosecurity protocols for cleaning and sanitizing
- Farm employees must also be trained to clean farm trucks and trailers
- Manure, soil and plant debris must be removed first



- The proper protocol for vehicle sanitation must be taught to drivers. Verify that your commercial livestock hauler has defined biosecurity protocols and that the drivers have been trained. Farm employees must also be properly trained to clean and sanitize livestock trucks and trailers.
- Implement a sanitation program for all vehicles. The frequency of vehicle sanitation (wash, disinfect and dry) will depend on the risk of contamination.
- Exposure to an abattoir or animals with a lower health status would require full sanitation.
- Sanitizing the interior of the trailer is as critical as the contact points.
- Automatic sprayers for vehicle cleaning are now used on some farms. However, they are only effective if organic material (e.g. manure, soil, plant debris) is first removed and spray coverage is adequate.
- Truck washes can be a source of contamination, identify which commercial or farm truck washes may be used and provide clear instructions on how to use them. Do not use a truck wash that uses recycled water.



Basic Truck/Trailer Cleaning Steps

- Scrape out
- Remove and clean panels and planks
- Rinse with lots of water
- Cover all surfaces with soap - sit 10 minutes
- Wash
- Disinfect – adhere to contact time
- Dry


- Just like washing your hands scrubbing with warm, soapy water is the easiest way to get things clean.
- For truck washes:
 - scrubbing = high pressure and a rotary nozzle
 - warm = warm water
 - soapy = detergent and/or degreasers
- Even a clean surface still has germs – this is where disinfectants come in. but, you must have the right concentration, use the right amount, and have sufficient contact time with the surface.
- Many germs are destroyed by drying and this makes it an important step in trailer disinfection and biosecurity.

Wildlife, Pets and Pests

- Implement a pest control program; wild birds and rodents may carry infectious disease or contaminate feed supplies







- Birds and rodents can carry disease on their feet and fur, and they can destroy thousands of dollars worth of feed, supplies and buildings each year.
- A rat deposits 25,000 droppings and a mouse 17,000 droppings in one year. Even a small population of these rodents may severely contaminate feed supplies.
- Flies are also a frequent carrier of disease and have been shown to travel up to 1½ km from farm to farm.




- Screen openings, exhausts, silo roofs.
- Screen ledges - could be used as nesting sites.
- Clean up feed spills.
- Maintain bait stations.
- Minimize vegetation around buildings.
- Consider a two to five foot apron of crushed stone/gravel around the perimeter of barns to deter rodents.

- You may be enticing wildlife to your production areas by feeding them either intentionally (i.e. bird feeders attract rats, squirrels, wild turkeys, etc. as well as song birds) or inadvertently by providing a feed source in spilled feed or access to feed storage.



- Keep pets out of barns and vaccinate them for rabies and diseases common in your area
- Include working dogs, livestock guardian animals and barn cats in you biosecurity plan
- Reduce risks posed by employees who own farmed animals, pets, and exotics

- Manage their access to mortalities, livestock feed, birthing areas, etc.
- Manage and reduce risks posed by employees who own farmed animals, pets, and exotics by insisting they practice cleaning and disinfecting of hands, clothing, footwear, and vehicles. They should also be instructed to notify you of any disease in their animals which may impact your livestock.



- Control the fly population
- Remove manure frequently to prevent completion of life cycles of parasites and flies.
- Wash farm clothing separately from other household laundry – hot water and thorough drying

- Control the fly population by removing manure, using traps, baits or flypaper, insecticides, or a combination of control measures.
- Remove manure frequently from barns, yards and holding areas to prevent completion of life cycles of parasites and flies.
- Wash farm clothing separately from other household laundry and use detergents and bleach or washing soda. Wash coveralls in hot water. Drying in a hot dryer is also an important part of the cleaning process.

Record Keeping

- Implement a good record keeping system for vaccination, medication, footbath changes, disease occurrences, mortalities, rodent bait changes, livestock movement in and out, etc.



- Prior to renting, leasing, or buying land and/or buildings, inquire about its biosecurity status (historical use and ownership, disease status of the area, etc.).
- Apply strict biosecurity protocols to all land that you rent out to others.



Biosecurity Plan

- Have a written biosecurity plan that is updated regularly
- Ensure that employees and family members receive proper training
- Talk to your veterinarian, feed delivery, animal health technicians, etc. regarding your biosecurity expectations

- Consider inviting a third party to review your facility's biosecurity control points and biosecurity plan. There may be risks within your operation that you overlook due to familiarity.
- Going through a formalized process of assessing your farm's biosecurity risks and writing down your plan will help you identify areas you might overlook otherwise.
- Funding is possible under Growing Forward 2 – 50% for Capacity Building which would include writing a biosecurity plan.
- Share components of your biosecurity plan as appropriate with neighbours, visitors, and service providers (e.g. deadstock service, feed suppliers, veterinarian, artificial insemination technicians, etc.)



Case Study



Biosecurity Zones

- National Biosecurity Standards reference *controlled access zones (CAZs)* and *restricted access zones (RAZs)*
- Purpose is to think about different levels of protection and access to protect herd/flock
- A CAP is a controlled access point such as a gate or door

- The concept of controlled access zones (CAZs) and restricted access zones (RAZs) has been accepted internationally and adopted by some livestock sectors in Canada. You will see these terms used in your National Biosecurity Standards.
- Used to identify relatively large areas of a farm for biosecurity management and is the first line of defence on your farm.
- Purpose of zoning is to isolate the herd/flock from the potential introduction of pathogens from animals, people, tools, equipment, vehicles, feed, water and pests entering the zones, and to contain any issues within the herd.



Controlled Access Zone

- CAZ = all active areas of the farm including RAZ
- Includes barns, pastures, sheds, feed and manure storage, laneways, etc.
- Does not include house and parking (ensure parking is located away from barns, sheds, etc.)

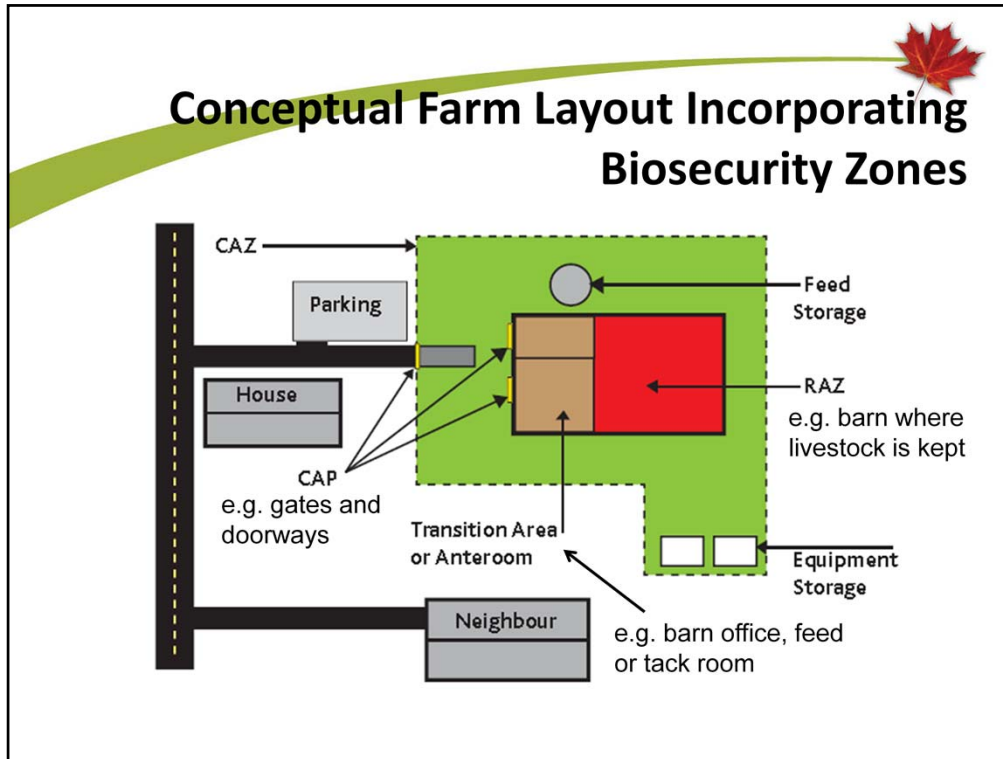
- The controlled access zone (CAZ) outlines boundaries that encompass all of the active production areas of the farm, including the restricted access zone (RAZ) and the areas where service activities involving people, equipment and supplies are conducted.
- The CAZ boundary may be marked with signage and have a physical boundary.
- Certain biosecurity practices are in place for animals, people, equipment, inputs and vehicles prior to entry into the CAZ, which preferably occurs through a pre-established **controlled access point** (CAP).



Restricted Access Zone

- RAZ = specific areas where the livestock is kept
- Barns, pastures when animals are turned out, outdoor pens, corrals, and feedlots
- May include manure and deadstock storage areas

- The RAZ is located within the CAZ and includes the areas where the herd/flock is housed, milked, pastured, worked, bred, treated and isolated.
- The RAZ is intended to limit unnecessary entry, allowing access only under pre-defined biosecurity conditions.
- Access to the RAZ should be through a controlled access point.
- Depending on the layout and management practices of individual farms, the manure storage, deadstock handling/storage and other production facilities maybe contained within the RAZ.
- **However**, if you use a deadstock pick up service – **Do Not** locate your deadstock pick up site within your controlled access zone. You want to keep those trucks away from your production area.



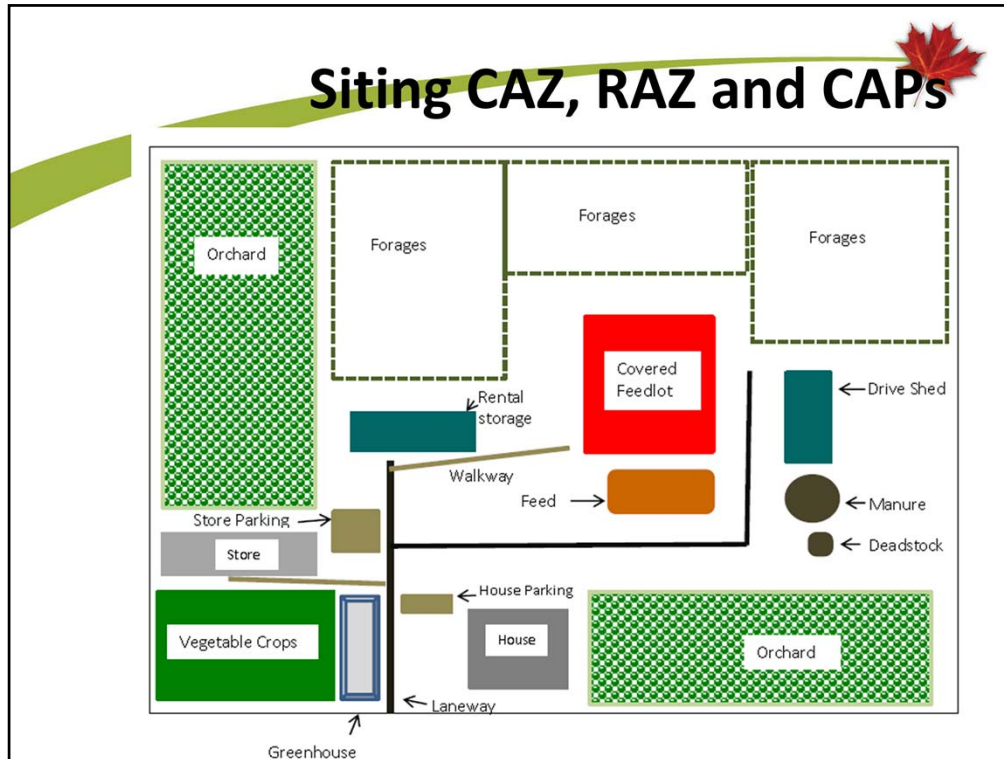
- The CAZ in this diagram is quite small but could be much larger and include pastures, outdoor confinement areas and cropping areas.



Case Study

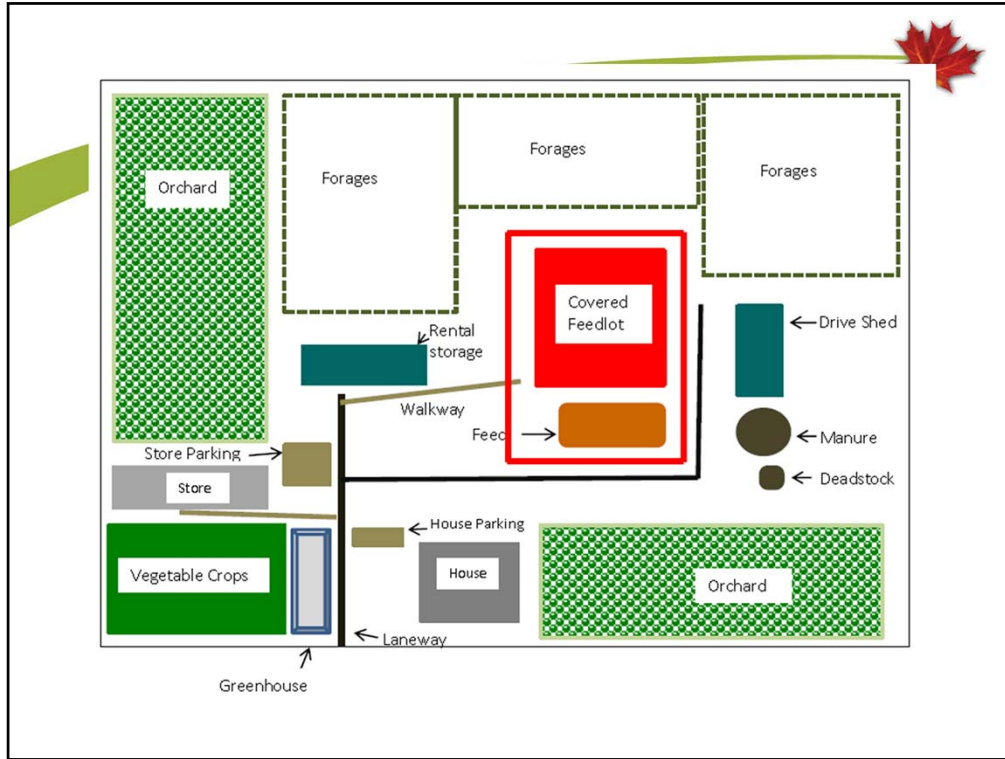
- Read the case study - 5 minutes
- Talk over the case study questions in your group and jot down your responses – 20 minutes
- We will have a full group discussion and hear what you determined to be some of the biosecurity considerations in this case study – 20 minutes

Siting CAZ, RAZ and CAPs

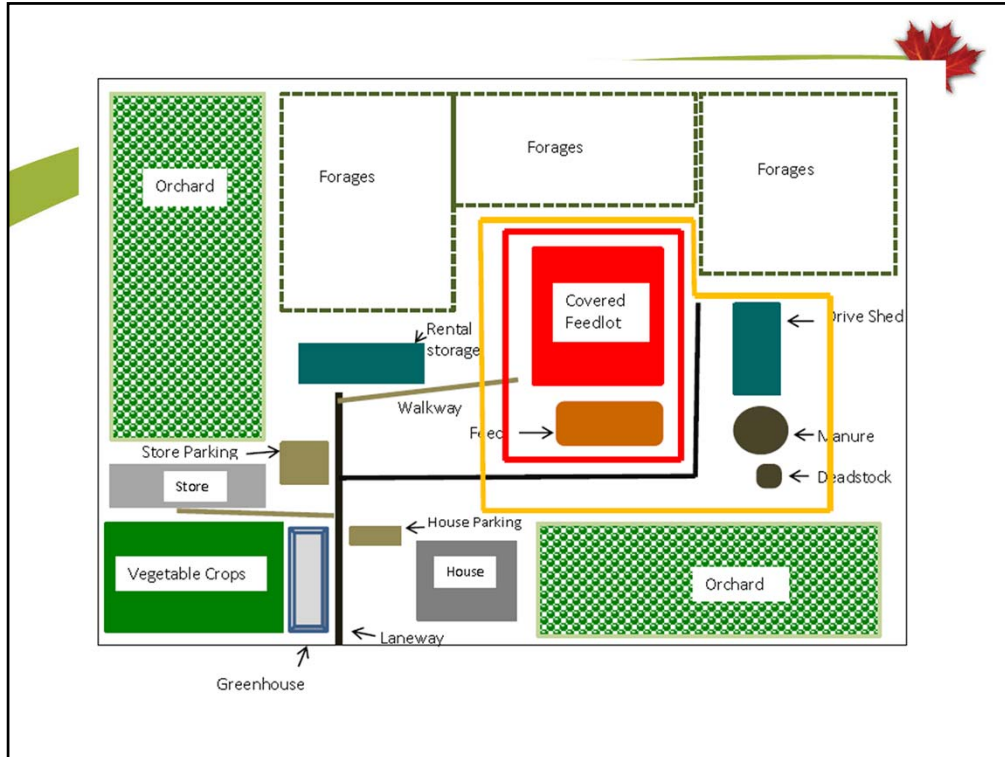


Note to Facilitator:

- Ask the attendees for their suggestions of how to establish the zones
- Run through the following four slides which show variations



- Red line is Restricted Access Zone (RAZ)



- Red line is Restricted Access Zone (RAZ)
- Yellow line is Controlled Access Zone (CAZ)
- Could consider the cropping areas part of the CAZ as well if considering plant biosecurity.



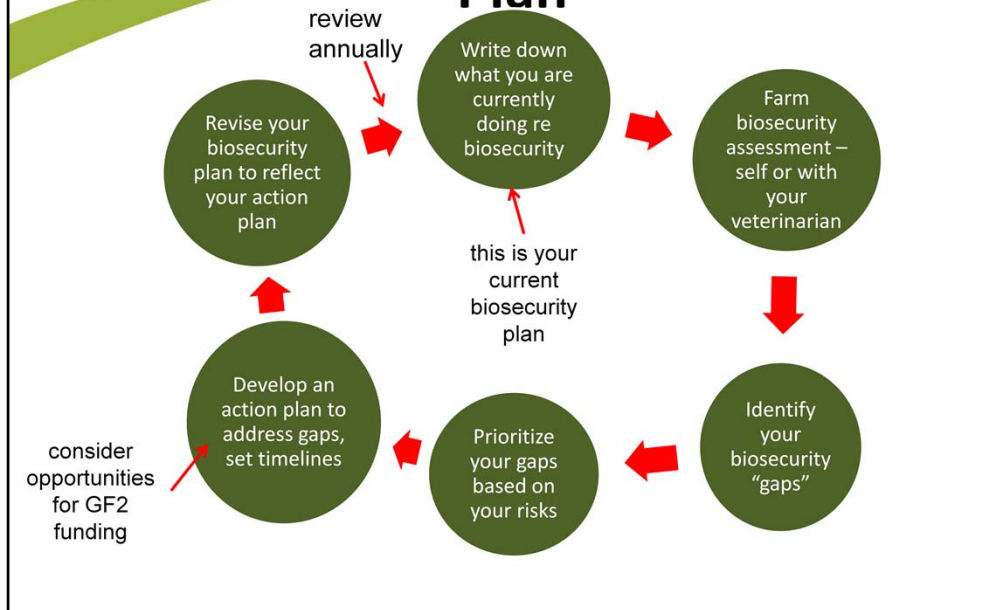
Your Next Steps

1. Review your National Biosecurity Standard and Guide
2. Work through the self-assessment
3. Identify your biosecurity “gaps” – consider asking a third party to review
4. Develop an action plan to address gaps – consider opportunities for GF2 funding
5. Write down your biosecurity plan and review at least annually

Steps to Developing an Action Plan



Plan



Examples for Biosecurity Practices which may be eligible under GF2

- Developing a biosecurity plan with a third party (Capacity Building)
- Retrofit existing structures to create an anteroom or transition area between “clean” and “dirty” areas
- Signage, fencing, barriers, grading, and landscaping to define zones
- Rerouting existing laneways and vehicle turning areas



- Establishing designated visitor parking
- Controlled access – gates, fencing, locks, barriers, security monitoring equipment
- Concrete pad or bunker for manure or plant cull and runoff
- Dedicated tools for manure or plant cull – e.g. tractor bucket, shovels, forks, etc.
- Compost facility
- Deadstock or plant cull handling



- Preventing access by pests and wildlife
- Concrete pad, wash bay
- Pressure washer, footbaths, buckets, boot brushes
- Quarantine, isolation areas
- Health management software, sharps containers, scales or metering equipment, handling systems



Thank you!