Oh no, I think my birds are sick…
Managing Poultry Disease on your Farm
Infectious Disease is a numbers game…

Infected birds act as “incubators”, reproducing 100,000s of particles of infectious viruses and bacteria until they are either:

A. die/are culled or
B. treated/develop immunity → shedding stops

THEREFORE

The sooner a diagnosis is made and the appropriate treatment (if available) is initiated, there is less environmental contamination by the infectious agent → spread is reduced → fewer birds sick
The tools we rely on…

- **BIOSECURITY MEASURES**
  - Keeps infectious agents OUT *(isolation)*
  - Reduces CHALLENGE *(sanitation)*
  - Aids CONTAINMENT if introduced *(quarantine)*

- **OPTIMIZING BIRD HEALTH**
  - Reduces stress, promotes immunity

- **SKILLED DIAGNOSTICS**
  - Field Experience/Intuition
  - Formal *(vets & vet labs)*
  - Timely & **Appropriate** Treatment

- *Lots of LUCK!*
DISEASE MANAGEMENT BASICS

- Know your birds
- Keep good records
- Seek a prompt disease diagnosis
  - See your vet
- Self-quarantine
- Isolate affected birds
  - TLC, treat, cull
- Appropriate treatment
- Cleaning & Disinfection
- Disease prevention & monitoring
- Buy healthy replacement birds
What contributes to the health of poultry?

- Genetic Potential
- Veterinary Care and Prevention
- Biosecurity
- Protection
- Clean Water
- Nutrition
- Vaccination
- Husbandry
- Housing
The FLAWS of good management

A management assessment checklist
What are the FLAWS?

- F Feed
- L Light
- L Litter
- A Air
- W Water
- S Space
- S Sanitation
- S Security
Getting Started
What things do you need to think about?

- What type of bird
- Housing
- Acquiring your birds
- Feeding
- Dead birds
- Manure management
- Processing
Getting Started: What type of bird do you want?

- Chicken, turkey, duck
- Show or production
- Meat or eggs
- Hatching eggs or table eggs
- Personal use or farm gate sales
- Chicks or point-of-lay pullets
Where will you get your birds?

- Ideally an *accredited hatchery*
  - Quality control programs
  - Salmonella monitored
  - Breeder flock health programs, including vaccination
  - Accountablility
- If acquiring chicks or birds from other fanciers, make sure you ask about health records; many diseases are spread through trading of birds
Self-Quarantine:
What to do if you suspect an infectious disease in your flock…

- Upon the *suspicion* of an infectious disease in a poultry flock, an owner can do certain things to limit the spread of disease between birds, and most importantly, the spread of disease off the farm into neighbouring flocks.
Self-Quarantine: when to act

There has been an unexplained:

- increase in mortality,
- onset of clinical signs of disease
  - Abnormal behaviour
  - Respiratory distress
  - Wet droppings, etc.
- sudden change in production parameters such as
  - feed/water consumption
  - egg production/shell quality, etc.
Self-Quarantine: **GET AN ANSWER**

Seek help from your poultry health advisor

Describe the problem

- What do you see?
- When did it start?
- Are things getting worse or resolving over time?
- *Have there been birds recently introduced?*
- Offer your suspicions.
- Be able to provide copies of production and mortality records.

Start a diagnostic investigation

Call your VET

- Call ahead to discuss
- Provide samples as required
  - Sick birds
    - May have to sacrifice
  - Necropsy samples
  - Flock blood samples
  - Digital pictures
ANIMAL HEALTH CENTRE (AHC)
BC Ministry of Agriculture: Plant & Animal Health Branch

1767 Angus Campbell Rd
Abbotsford, BC V3G 2M3
1-800-661-9903
The Animal Health Centre (BC Vet Lab)

- The Animal Health Centre (AHC) is part of the BC Ministry of Agriculture, Plant & Animal Health Branch

- An effective passive surveillance tool for early detection of infectious diseases in poultry
  - Locally imbedded in the Fraser Valley where the majority of commercial poultry are located
  - Accept small flock submissions from all over the province
  - Subsidized small flock submissions
  - Dedicated poultry pathology/virology expertise

- Accredited
  - AAVLD
  - CAHLN AI-network lab
    - CFIA will respond to an AHC detection

- CL-3 FAD lab
Submitting Birds

- Lab open 8:30am-4:30pm, Monday to Friday
- Birds can be brought in by producer, vet, feed rep, courier, etc.
- If birds are shipped, they should be frozen prior to shipping or kept on ice
- Submission form available on Ministry of Agriculture website
- Indicate reason for submission (e.g., spike in mortality, decreased production) and disease suspected
Testing Procedure

- **Necropsy (aka Gross Examination)**
  - Examination of organs and tissues, looking for signs of specific diseases (or non-specific changes)
  - Selection of tissues for ancillary testing

- **Ancillary testing**
  - Bacteriology
  - Parasitology
  - PCR
    - Test for DNA of different organisms
    - Each test specific to one organism, or group of organisms
    - E.g., Influenza, Newcastle disease, Mycoplasma gallisepticum, ILT, infectious coryza
Self-Quarantine: **WHILE YOU WAIT**

**Follow the advice of your veterinarian.**
- Base initial treatment of the flock on the disease suspected (treat exposed birds to prevent, affected birds to cure).
- Restrict access to farm and **suspend all unnecessary traffic.**
- Hold back product sales.

**Immediately adopt enhanced biosecurity.**
- Attend unaffected birds first.
- Follow strict personal biosecurity procedures for between barns/flocks and for leaving the farm e.g. non-farm clothing, footwear and vehicle.
- Postpone movements of birds on or off the farm.
- Dispose of dead/culled birds in an approved method. **Treat as infectious material.**
Self-Quarantine:  *WHEN A DIAGNOSIS IS CONFIRMED*

- Modify or initiate flock treatment as directed by your veterinarian.
- Enhanced on-farm biosecurity procedures should be followed for **at least 10-14 days** following the end of treatment or the resolution of clinical signs.
- Continue to monitor for disease reoccurrence in the same or subsequent flocks:
  - watch for clinical signs
  - submit follow-up samples
- Consider all-in/all-out management style if possible.
Self-Quarantine = lock down

STEP 1. GET AN ANSWER
- diagnostics

STEP 2. WHILE YOU WAIT
- inform key players
- monitor & best guess treat
- enhanced biosecurity
- suspend product sales & visitors
- postpone bird movement on/off

STEP 3. WHEN A DIAGNOSIS IS CONFIRMED
- manage flock within the context of the disease; modify treatment
- continued enhanced biosecurity

STEP 4. GETTING BACK TO NORMAL
- C & D
- monitor for disease reoccurrence
- Submit follow-up samples
Questions?

I ordered a chicken & an egg from Amazon. I’ll let you know.

You’ve got asphalt between your toes! You crossed the road last night, didn’t you!!