

# BIOSECURITY

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## The Impact On The Poultry Sector

Val Simoens  
Field Services Technician



# Manitoba Chicken Producers

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- 24 broiler breeder producers
  
- 120 broiler producers

# On-Farm Food Safety Programs

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- ❑ Broiler breeders: CHEQ™
- ❑ Broiler: *Safe, Safer, Safest*
- ❑ Both mandatory under MCP regulations

# On-Farm Food Safety Programs

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- Based on HACCP principles
  - Identify, limit and control hazards
  
- Do what you say*
- Say what you do*
- Prove it*

# Farmers' Responsibilities

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- ❑ Farm practices and record keeping in compliance with OFFSAP
- ❑ Undergo yearly audits, including on-farm inspections

# MCP Responsibilities

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- ❑ Each auditor must have adequate training
  - ❑ HACCP
  - ❑ Generic auditing
  - ❑ Commodity-specific
- ❑ Conduct annual audits for each producer
- ❑ Log all information
  - Audit dates, Corrective Actions, follow ups

# Purpose of OFFSAP

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- Customer assurance that food safety is a priority across the nation
  - Consistent standards
- Food safety begins at the farm
  - Biological, chemical, physical hazards
  - Assess the risks and manage them

# Purpose of OFFSAP

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- Prevent and control the spread of avian diseases
  - What kind of avian diseases?

# Avian Influenza

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- ❑ Viral disease
- ❑ May affect neighboring poultry, hatcheries, processors, etc
- ❑ Can be transferred by manure and poultry bodily secretions

# Avian Influenza

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- Different strains
  - High vs low pathogenic
  - Ie: impact on birds

# Avian Influenza

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- Low Pathogenic
  - Decreased food consumption
  - Huddling, depression
  - Respiratory conditions (coughing, sneezing)
  - Decreased egg production

# Avian Influenza

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## □ High Pathogenic

- Sudden, drastic mortality – can be up to 100%
- Decreased food consumption
- Decreased egg production
- Swollen combs and wattles

# Avian Influenza

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## □ Export

- AI in SK 2007 – bans from Hong Kong, Japan, USA
- Isolated incident, but ripple effects

# ILT – Infectious Laryngotracheitis

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- ❑ Compared to the plague
- ❑ Respiratory disease
- ❑ Most often traced back to equipment, visitors, shoes, clothing
- ❑ Rapidly spread

# ILT – Infectious Laryngotracheitis

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- Watery eyes, nasal discharge, severe coughing, bloody cough, difficulty breathing
- Mortality
  - 10-20%, may reach 50-70%
- Egg production
  - Decreases 10-50%

# Who is affected by avian diseases?

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- ❑ Producer – loss of production
- ❑ Feed companies – rescheduling, transportation restrictions
- ❑ Rendering companies – transportation issues, loss of product
- ❑ Processors – decreased supply, rescheduling, thorough equipment c & d

All must implement enhanced  
biosecurity measures

# Crisis Situations – Emergency Plan

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- Group effort of:
  - feather boards (turkey, eggs, chicken)
  - MB Pork
  - MAFRI
  - CFIA(to name a few)

# Emergency Plan

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## □ 3 zones

- Infected site - farm
- Restricted zone – 3 km radius
- Security zone – 10 km radius

# Emergency Plan

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- On farm
  - Depopulation and disposal
  - C & D to meet CFIA approval
  - Bio Containment
- 3 km zone:
  - Restrictions on poultry movement
  - Surveillance - testing
- 10 km zone:
  - monitored

# What about the less serious?

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- IBH – Inclusion Body Hepatitis
  - Immune challenges
  - Mortality 5-10%
  - Poor weight gain
  - Non uniform flock
  - Highly resistant to common disinfectants

# What about the less serious?

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- IBD – Infectious Bursal Disease
  - Affects the organ involved in immune system development
  - Highly contagious
  - Morbidity 10-90%
  - Mortality usually less than 3%

# Example: 10% mortality

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- How much does it cost the farmer?

30,000 kg = smallest broiler quota in MB

- 10% of 30,000 = 3,000 kg lost
- 3,000 kg x \$1.50/kg
- = \$4,500 lost in a single cycle, due to mortality alone
  - Reduced growth rates, poor feed conversions and medications not considered

# Ex: 15% decrease in egg production

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- Smallest quota = 7,000 hens
- Assume 70% production = 4,900 eggs/day
- $15\% \times 4,900 = 735$  eggs lost in a single day
- 735 eggs  $\rightarrow$  approx 588 chicks lost
- 588 chicks lost =  $588 \times .45 = \$265$  lost in one day
  - Consider the stage of production and how long the problem persists

# Disease Prevention

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- ❑ No guarantees
- ❑ Mitigate the risk
- ❑ “as strong as the weakest link”

# Role of OFFSAP

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Protect the farmer

Protect the industry

# Environmental farm plan saved Walkerton farmer

the Manitoba Co-operator

By Ron Friesen

David Biesenthal's first shock came a few days after people started dying in Walkerton, Ontario two years ago.

A provincial Environment Ministry official drove on to Biesenthal's yard to tell him that cattle manure from his farm was suspected as the source of a deadly E. coli infection in the town's water supply.

The second shock occurred a few days later when a reporter arrived to ask Biesenthal how it felt to be the source of the pathogen that was killing people in Walkerton.

Suddenly, Biesenthal's farm was national news. He and his wife became media targets.

Reporters kept hours. Things got so bad they were forced to park a truck a quarter-mile from their house to keep

It got even worse. The Biesenthals were hit with a \$350 million lawsuit for allegedly mishandling a dangerous product, even though none of the plaintiffs had ever examined his farm.

Perhaps the worst moment came when a relative of one of the Walkerton victims tearfully told Biesenthal he didn't blame him for the deaths.

Biesenthal says the Walkerton experience took 10 years off his life and cost his part-time veterinary practice \$20,000. The only thing that saved him was his on-farm environmental plan.

Biesenthal had been among the first Ontario farmers in 1994 to complete a two-day workshop on developing voluntary farm environmental plans. Ever since then,



— Ron Friesen photo  
David Biesenthal says an environmental farm plan saved him and his operation.

was able to demonstrate that if manure had gotten from his barnyard to the contaminated Well No. 5, it would have had to flow uphill.

The inquiry concluded the main causes of the Walkerton tragedy were mismanagement by the town and its staff, cutbacks to provincial environmental services and a badly maintained well in a poor location.

Manure from Biesenthal's cattle may indeed have resulted in the deadly E. coli O157:H7 strain getting into Walkerton's water system. But Biesenthal himself

was exonerated. The lawsuit was abruptly thrown out. All because Biesenthal had written records to show that he had done nothing wrong in managing his farm.

Biesenthal told his story to the Canadian Cattlemen's Association last week to illustrate the importance of environmental farm plans.

"They give you the confidence to stand up to people and say, I've done things right," he said.

Biesenthal, 59, said environmental farm plans enable farmers to stand back and take a critical overview of their operations. This enables them to assess their management practices and pinpoint areas for improvement. Doing their own assessments instead of hiring someone else to do it gives producers a personal sense of responsibility for their operation, Biesenthal said.

He said farmer-driven environmental plans provide many benefits. They help to conserve soil and preserve water quality. They safeguard public health. They enhance property values.

And, as Biesenthal's case demonstrated dramatically, they reduce the risk of personal liability if an accident occurs. Like manure getting into a town's water supply.

' The lawsuit was abruptly thrown out. All because Biesenthal had written records to show he had done nothing wrong in managing his farm.'



# On-Farm Food Safety Programs

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## Primary focus on:

- Feed

- Water

- Medications

- Biosecurity

- the process to reduce the risk of spreading a disease, or to contain one

# Biosecurity

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- Controlling access to the farm
  - Rodents
  - Beetles
  - Wild birds
  - Flies
  - People

# Biosecurity

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This  
is where YOU  
enter the picture!

# Biosecurity

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- 2 zones on farm
  - Controlled Access Zone (CAZ)
    - Buffer zone around each barn
    - Ideally 50 ft
  - Restricted Area (RA)
    - Zone inside the barn

**DO NOT ENTER**

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**BIO-SECURITY  
IN EFFECT**

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**PLEASE REPORT  
TO HOUSE**

**DO NOT  
ENTER  
BIOSECURITY  
IN EFFECT**



*Chicken Farmers  
of Canada*

*Les producteurs de  
poulet du Canada*



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada



**DO NOT ENTER**

**BIOSECURITY IN EFFECT**  
**Permission required past this point**



 Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

# Biosecurity – Visitors

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- ❑ Prior to visiting the farm
  - Contact the farmer - any specific rules or instructions?
    - ❑ Down time between farms
    - ❑ Biosecurity wear
      - Coveralls, boots, hair net, etc.
  - Prevent cross-contamination between farms
    - ❑ Ex: vehicles, tools, pens – wash or disinfect prior to accessing the farm
    - ❑ Only take tools that are absolutely necessary into the barn

# Biosecurity – Visitors

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- At the farm
  - Park outside CAZ
    - Identified by signage
  - Enter CAZ under farmer direction
    - Recommend footwear change

# Biosecurity – Visitors

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## In the barn

- Enter RA only when absolutely necessary
- Change footwear at designated change area
  - Usually identified by line on the floor, doorway, signage, or combination
  - Avoid common contact of footwear



Pretty Nice huh?  
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**RESTRICTED AREA**



**FOOTWEAR MUST BE  
CHANGED AT THIS POINT**

# Biosecurity – Visitors

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- Sign the visitors log
  - Name
  - Previous farm contact (in terms of hours or days)
  - List biosecurity clothing used
  
- Traceability
- Producer awareness to take appropriate actions

# Biosecurity – Visitors

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- Leaving the farm
  - Respect the CAZ – where is the best place to doff coveralls
  - Leave disposable coveralls with the farmer whenever possible
  - If you have to take them with you, ensure there is no cross-contamination between the articles in question and other supplies
    - Ex: clean vs dirty bin

# Biosecurity

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- ❑ No plan is fool-proof, but prevention is key
- ❑ Everyone has a job to do, but let's minimize the risks whenever and wherever possible.

# Thank you.

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