Biosecurity for Backyard Poultry

Timothy McDermott DVM OSUE Franklin County
Ohio cancels all poultry shows to minimize bird flu risk

By Other News - June 2, 2015
Impacts of the 2014-2015 Highly Pathogenic Avian Influenza Outbreak on the U.S. Poultry Sector

Sean Ramos, Matthew MacLachlan, and Alex Melton

Abstract

Between December 2014 and June 2015, more than 50 million chickens and turkeys in the United States died of highly pathogenic avian influenza (HPAI) or were destroyed to stop the spread of the disease. These birds accounted for about 12 percent of the U.S. table-egg laying population and 8 percent of the estimated...
Basics of Biosecurity

• Prioritizing and Protecting the Health of the Backyard Flock
Basics of Biosecurity

• Develop a Plan
  • Plan of action in each case
  • What to do if problems occur
• Prevention of Disease is the KEY
Basics of Biosecurity

Basics of Prevention – Modes of Infection

Direct vs. Indirect

Direct: Bird → Bird

Indirect: Something else → Bird
Basics of Biosecurity

• Biosecurity Concerns - Direct
  • Wild Birds
  • Domestic Birds
Major North American Migratory Flyways

- Wild birds will be a concern.
- Can carry and vector multiple diseases to domestic poultry.
- How to minimize interaction?
  - Water on property
IMMEDIATE: USDA Confirms Additional Case of Virulent Newcastle Disease in Backyard Birds in California

USDA Animal and Plant Health Inspection Service sent this bulletin at 09/14/2018 04:00 PM EDT

During the week of September 7-13, the United States Department of Agriculture’s (USDA) Animal and Plant Health Inspection Service confirmed one additional case of virulent Newcastle disease in backyard exhibition chickens in Los Angeles, Riverside, San Bernardino and Ventura counties, California.

Over the past few weeks, the response team intensified its efforts and identified additional cases of vND within existing disease-control areas. Affected flocks are quickly euthanized. Together, these actions will help us prevent additional disease spread and eradicate the disease more quickly.

USDA is announcing confirmed vND cases weekly. Cases are still being tested and confirmed as they are identified. If there is a finding in a new state or a different segment of industry, USDA will issue an announcement for that case immediately. A complete list of confirmed cases are available on our website at www.aphis.usda.gov/animalhealth/vnd.

Virulent Newcastle disease has not been found in commercial poultry in the United States since 2003.
**NPIP**

**National Poultry Improvement Plan**

- Established in the 1930’s
- Original focus to eradicate **Pullorum Disease**
  - *Salmonella pullorum* – up to 80% Mortality
- Now also targets:
  - *S. typhoid, S. enteriditis*
  - *M. gallisepticum, M. synoviaea, M.meleagrisidis*
  - High Path Avian Influenza
Basics of Biosecurity - Direct

• Address interactions with wild birds
  • Housing, water on property, food storage

• Where to get your bird(s)?
  • Hatch, chick, adult

• Adult birds – Craigslist, Humane orgs, Re-home

• Do not mix species, ages, or flocks

Quarantine Area
# BUFF ORPINGTON

**PRODUCT CODE:** BUOS

Be the first to review this item

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Next available: 100+ left for Oct 29, or view upcoming inventory
LEANN'S "ADOPT ME" BARGAIN

PRODUCT CODE: AMBS

Be the first to review this item

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ADD TO CART

Next available: 100+ left for Oct 25, or view upcoming inventory

Leann's Adopt Me Bargain

LeAnn cleans out our incubators after our weekly hatches. She finds all sorts of healthy, little bloomers hiding in there. Adopt these foundlings from her, so she won't have to take any home! Guaranteed variety could include any chicken chicks, bantams, or broad breasted turkeys.
Layers for sell - $150 (Grove city)

Chickens... layers for sell or trade for pigeons
Basics of Biosecurity - Direct

Biosecurity for the Brooder

• Start with Healthy Chicks
  • NPIP
• Start with a clean(sterilized) brooder
• Work with the youngest before the oldest
  • Quarantined poultry are worked last
• Personal Protective Equipment
• Sterilization Plan
Basics of Biosecurity - Indirect

Biosecurity Concerns
- Visitors
- Fair
- New stock
- Equipment
- Feed
- Water
- Delivery Trucks
Basics of Biosecurity - Indirect

Personal/Home/Farm Biosecurity
- Need a plan
- Equipment
  - Easily Sterilized
  - Different sets
- Visitors
- Food/Water Storage
- Disposal of Material
- Quarantine Area

CFAES
Veterinary Care in the Biosecurity Protocol

- Vaccination
- Flock Health
  - Nutrition
  - Housing
  - Stress
- NPIP
- Knowing What is Normal/Abnormal
  - Common signs of illness
  - Immediate quarantine
  - Veterinary Care
Backyard Biosecurity
6 Ways To Prevent Poultry Diseases

Backyard Biosecurity

What is Backyard Biosecurity?
Backyard biosecurity means doing everything you can to protect your birds from disease. As a bird owner, keeping your birds healthy is a top priority. Your birds can become sick or die from exposure to just a few common bacteria, viruses, or parasites. In a single day, these germs can multiply and infect all of your birds. By practicing backyard biosecurity, you will help keep your birds healthy.

If you follow some basic tips and make them part of your routine, you can decrease the risk of disease entering your farm and reducing in soil droppings and debris. Practicing biosecurity is an investment in the health of your birds.

What Can I Do To Protect My Birds?
The basic biosecurity steps are:
1) Keep your distance.
2) Keep it clean.
3) Don't feed disease home.
4) Don't borrow disease from your neighbor.
5) Know the warning signs of infectious bird diseases.
6) Report sick birds.

To learn more about each of these steps, see our "Biosecurity Tips: 6 Ways To Prevent Poultry Disease" fact sheet or visit healthybirds.usda.gov.

Cleaning and Disinfecting
Cleaning and disinfecting is one of the most important parts of backyard biosecurity. But you need to make sure you do it correctly to institute disease.
1) Thoroughly clean and scrub objects before applying disinfectants. Disinfectants cannot work on top of calcium dust and manure, so wash surfaces thoroughly before disinfecting them.
2) Apply disinfectants using brushes, sponges and spray units. Allow adequate contact time (follow manufacturer's instructions).
3) Dispose of used disinfectant according to local regulations.

Below are some examples of disinfectants available on the market. Follow the directions on the label carefully for the best results.
- **Roccal**: Mix one-half fluid ounce (oz) of Roccal per gallon of water.
- **Nihonamin** (chlorhexidine diacetate 2 percent): Mix 5 fluid oz of Nihonamin per gallon of water.
- **Household bleach (sodium hypochlorite 6 percent)**: Mix three-fourths of a cup of household bleach per gallon of water.
- **Lysol** spray for footwear
- **PawPaw hand paws for hand disinfection**

Making an Easy Footbath
A footbath is a handy tool to help you practice backyard biosecurity. You can easily make one yourself. You will need:
- A low plastic pan or bowl wide enough to fit an adult's foot and shallow enough to step into easily
- A plastic door mat (the "bathe mat" works well)
- A disinfectant that works well for most situations, such as "Sani-wet" or "One Stroke Enviro".
- Water

Mix the disinfectant with water according to the label instructions. Put the door mat in the plastic pan. Add disinfectant so that the bottom of the mat is wet.

Ask visitors to walk through the footbath, wiping their feet on the mat. The mat scrubs their shoes a bit as they wipe them and applies the disinfectant.

When the liquid starts to get dirty empty it and put in new disinfectant.

Report Sick Birds at 1-866-536-7593.
If your birds are sick or dying, call your agricultural extension agent, local veterinarian, or the State veterinarian. Or, call the U.S. Department of Agriculture (USDA) toll-free at 1-866-536-7593, and we'll put you in touch with a local contact.

USDA is an equal opportunity provider and employer.

More →
1 Keep Your Distance.
Restrict access to your property and your birds. Consider fencing off the area where you keep your birds and make a barrier area if possible. Allow only people who take care of your birds to come into contact with them. If visitors have birds of their own, do not let them near your birds. Game birds and migratory waterfowl should not have contact with your flock because they can carry germs and diseases.

2 Keep It Clean.
Wear clean clothes, scrub your shoes with disinfectant, and wash your hands thoroughly before entering your bird area. Clean cages and change food and water daily. Clean and disinfect equipment that comes in contact with your birds or their droppings, including cages and tools. Remove manure before disinfecting. Properly dispose of dead birds.

3 Don’t Haul Disease Home.
If you have been near other birds or bird owners, such as at a feed store, clean and disinfect car and truck tires, poultry cages, and equipment before going home. Have your birds been to a fair or exhibition? Keep them separated from the rest of your flock for at least 2 weeks after the event. New birds should be kept separate from your flock for at least 30 days.
4 Don’t Borrow Disease From Your Neighbor.

Do not share lawn and garden equipment, tools, or poultry supplies with your neighbors or other bird owners. If you do bring these items home, clean and disinfect them before they reach your property.

5 Know the Warning Signs of Infectious Bird Diseases.

- Sudden increase in bird deaths in your flock
- Sneezing, gasping for air, coughing, and nasal discharge
- Watery and green diarrhea
- Lack of energy and poor appetite
- Drop in egg production or soft- or thin-shelled misshapen eggs
- Swelling around the eyes, neck, and head
- Purple discoloration of the wattles, combs, and legs (AI)
- Tremors, drooping wings, circling, twisting of the head and neck, or lack of movement (END)

Early detection is important to prevent the spread of disease.

6 Report Sick Birds.

Don’t wait. If your birds are sick or dying, call your local cooperative extension office, local veterinarian, the State Veterinarian, or U.S. Department of Agriculture (USDA) Veterinary Services office to find out why. USDA operates a toll-free hotline (1-866-536-7593) with veterinarians to help you. There is no charge for this service.
Biosecurity for the Humans
Outbreak of Multidrug-Resistant *Salmonella* Infections Linked to Raw Chicken Products

CDC and public health and regulatory officials in several states are investigating a multistate outbreak of multidrug-resistant *Salmonella* infections linked to raw chicken products. The U.S. Department of Agriculture’s Food Safety and Inspection Service (USDA-FSIS) is monitoring the outbreak.
Duncan Hines recalls 2.4 million boxes due to potential salmonella risk
Egg Basics

- Make about one per day
- Usually in morning
- Are wet when come out
- Same opening as feces
- DO NOT WASH (Opinions vary)
- Discard if cracked, dirty, problem
Outbreaks of Human *Salmonella* Infections Associated with Live Poultry, United States, 1990–2014

Colin Basler, Thai-An Nguyen, Tara C. Anderson, Thane Hancock, and Casey Barton Behravesh

Abstract

Backyard poultry flocks have increased in popularity concurrent with an increase in live poultry–associated salmonellosis (LPAS) outbreaks. Better understanding of practices that contribute to this emerging public health issue is needed. We reviewed outbreaks reports to describe the epidemiology of LPAS and risks in...
• 49% Snuggled baby birds
• 13% Kissed baby birds
• 22% kept poultry in living room
• 12% kept poultry in the kitchen
• 10% kept poultry in the bedroom
• 10% kept poultry in the bathroom

• When asked if aware of poultry – Salmonella connection – 58% were aware of the risk

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5038410/
Salmonella:
• 1.2 Million cases per year
• 23,000 Hospitalizations/yr
• 450 Deaths per year

https://www.cdc.gov/salmonella/general/
Resources:
• USDA/APHIS – Biosecurity Site
• ATTRA – Biosecurity for Pastured Poultry
• NPIP – National Poultry Improvement Plan
• Poultry Team Website
• Mcdermott.15@osu.edu
Questions?
Mcdermott.15@osu.edu