

Backyard Biosecurity

An Introduction to Backyard Biosecurity



What is Biosecurity?

- Simple, inexpensive steps taken to reduce the risk of potential exposure, infection, and spread of disease.
- It means doing everything you can to protect birds against bacteria, viruses, and other germs.



Why is **Biosecurity** Important?

- Establishing and maintaining good biosecurity practices helps protect your flock like a moat protects a castle.
- Biosecurity is the moat that protects your birds from “invaders”. It safeguards against diseases-causing agents such as viruses, bacteria, and parasites, many of which are carried on fomites.



What are Fomites?

- Fomites are objects that can carry disease-causing agents, such as bacteria and viruses.
- **Anything** that can carry germs from an infected bird to your flock can be considered a fomite!
- Some examples are:
 - Hands
 - Clothes
 - Shoes
 - Tools
 - Feed barrels



Examples of Poultry Diseases

- **Marek's Disease** – No. 1 killer of backyard poultry!
 - Coccidiosis
 - Fowl Cholera
 - Fowlpox
 - Infectious bursal disease (IBD)
 - Infectious Coryza
 - Infectious Laryngotracheitis
 - Mycoplasmosis
 - Salmonella*
- **Foreign Animal Diseases (FADs):**
 - Highly Pathogenic Avian Influenza* (HPAI)
 - Virulent Newcastle Disease (vND)



*Zoonotic diseases can affect humans.

Biosecurity Basics: Cleaning

- **Cleaning** removes germs (i.e. bacteria, viruses, etc.) and visible debris (i.e. manure, dirt, etc.) from surfaces.
- **Dry Clean:** Brush, scrape, and shovel off the manure, litter, dust and other materials.
- **Wet Clean:** Thoroughly scrub all surfaces with soap and water – working from top to bottom and back to front. Rinse thoroughly and repeat if necessary.



Biosecurity Basics: Disinfecting

- **Disinfecting** kills germs on surfaces.
- However, disinfectants are **useless on dirty surfaces**. It is a waste of money, time, and materials and does not help protect your birds.
- Prior to disinfecting, any surface that is **visibly dirty should be cleaned thoroughly** in order for the disinfectant to work properly.
- Always **double-check the contact time for a disinfectant**; it must sit on a surface for an allotted amount of time in order for it to effectively kill germs.



Biosecurity Basics: Pro Tips

- Maintaining proper biosecurity requires cleaning AND disinfecting.
- Gather everything you need to clean and disinfect. We recommend having:
 - Large bucket
 - Detergent (Soap)
 - Scraper
 - Water or water source
 - Shovel
 - Disinfectant
- **Make sure your cages/coops are empty before cleaning.** Use a paint scraper to scrape off feces and a sprayer bottle to get your cleaning solution into hard-to-reach areas.



Clean and Disinfect Equipment

- **Clean and disinfect equipment** that has been in contact with birds.
- **Avoid sharing equipment with neighbors or other bird owners.** If sharing is unavoidable, clean and disinfect the equipment before and after each use.



Beware of Reusable Feed Barrels

- Dirty barrels can act as fomites or have old feed with mold or other germs that can cause disease.
- If you exchange empty feed barrels with a local feed store, ensure that it has a system in place for cleaning and disinfecting feed barrels.



Wear Clean Clothing and Shoes

- Have clean, dedicated clothes and shoes to use **ONLY** when working with your flock. For easy access, keep a pair of coveralls and rubber boots near your coop.
- Always change your clothes and shoes before **AND** after working with your birds. Be sure to clean and disinfect them regularly.
- We also recommend that you disinfect your shoes after visiting feed stores.



Handle Birds with Clean Hands

- Wash your hands with regular hand soap (liquid is preferred) **BEFORE and AFTER handling birds.**
- If hand soap is unavailable, an alcohol-based (70%+) hand sanitizer is a suitable substitute, as long as hands are not visibly dirty.
- Place hand washing and/or hand sanitizer stations near your coops for easy access. Be sure to check them regularly.

Remember...

Handwashing seems simple, but it is an inexpensive way of protecting you and your flock and preventing the spread of disease.



Limit Access to Birds

- **Restrict access to your birds.** Visitors may carry disease on their clothes or shoes.
- Ensure that any visitors have washed their hands and disinfected their shoes before (AND after) interacting with your poultry.
- Consider setting up signs and fences to deter people from accessing your coops and cages.



Keep Birds Healthy and Secure

- Protect your flock from wild birds, insects, and rodents by keeping them in secure, enclosed housing such as coops and cages.
- Rodent control measures, such as baits and traps can be useful in keeping rodents away from your coop. Check regularly for any gaps or holes through which critters can get in.
- It is especially important to keep feed in a secure bin away from wild birds and rodents.



Keep Poultry & Pet Birds Separate

- To avoid cross contamination:
 - Do not commingle your poultry with pet birds.
 - Do not commingle different poultry species.
- Ideally, any coops or cages containing poultry should be kept in a separate area, away from pet birds.
- If this is not possible, a barrier should be placed between the poultry and pet birds.



Keep Cages and Coops Clean

- Offer clean food and water daily.
- Remove droppings and change bedding at least 2 -3 times per week. Ensure that all used bird litter and bedding is disposed of properly.
- Properly clean and disinfect coops and cages at least once a week.



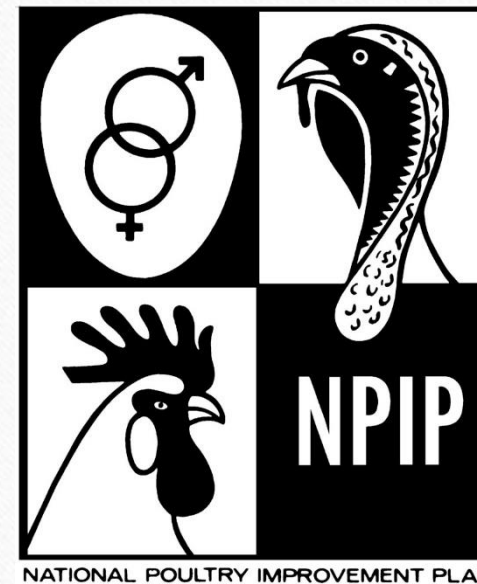
Dispose of Waste Properly

1. Place dirty bird litter or bedding in garbage bag.
 - a. If you suspect that your store has sick birds, spray the inside and outside of the bag with disinfectant spray.
2. Seal the bag and place in another bag.
3. After waste is double-bagged and sealed, dispose of it in a sealed trash can.



Buy Birds from Reputable Hatcheries

- **We recommend purchasing chicks from reputable U.S. hatcheries.** If buying chicks from a feed store, ensure that they are sourcing their chicks from reputable hatcheries as well.
- Reputable U.S. hatcheries include NPIP-certified hatcheries or hatcheries that vaccinate for Marek's Disease and coccidiosis.
- **Do not purchase birds from unreliable sources.** Birds from unreliable breeders can introduce disease to your flock and expose your healthy birds.



Isolate Birds (Re)Entering Your Property

- It is necessary to quarantine or isolate any new birds, including chicks, for at least 30 days and observe them for any signs of illness. Any birds returning from exhibitions or events should also be quarantined and observed for illness.
- Do not mix birds of different age groups.
- Take care of your healthy flock BEFORE working with any quarantined birds.
- Separate clean, dedicated clothing should be used when taking care of any birds under quarantine.



Isolate and Report Sick Birds

- Isolate sick birds immediately and consult a veterinarian. We recommend developing a relationship with a [poultry veterinarian](#) beforehand.
- Report sick or dead birds. When an unusually large number of your birds are suddenly sick and/or die, it is important to contact us. Early disease detection (identification and containment) is **critical** to protecting your healthy birds.
 - **Sick Bird Hotline (866)922-2473**



Submit Dead Birds to CAHFS for Testing

- Up to two dead birds from backyard flocks can be submitted to California Animal Health and Food Safety Laboratory System (CAHFS) for necropsy examinations (\$25 +shipping)
- A “backyard flock” is a flock of chickens, turkeys., squab, and water fowl of less than 1,000 in the flock.
- This does NOT include pet birds, quail, pheasants, racing pigeons, etc. (Additional costs may apply.)
- Bird carcasses must be kept refrigerated no more than 3 days prior to shipping. **DO NOT FREEZE.**
- For more information about CAHFS, please click [here](#).

UC DAVIS VETERINARY MEDICINE
California Animal Health and Food Safety Laboratory System
FOR MORE INFO VISIT: <https://cahfs.vetmed.ucdavis.edu/>

For Lab Use Only
Accn # _____ Recd by: _____
Case Coordinator: _____ Accn Type: _____
of Samples: _____ Date rec'd: _____ Section: _____
Paid: Carrier: _____

Veterinarian's Name _____ Owner Name _____
Clinic Name _____ Ranch _____
Address _____ Address _____
City _____ State _____ Zip _____ City _____ State _____ Zip _____
Phone _____ Fax _____ Phone _____ Fax _____

Email: Bill to: Vet Clinic Owner Other _____ Email Report to: Vet Clinic Owner
 Add'l Copy to: _____
Bill to address if different than above: _____ Preferred reporting method: fax, email, and/or mail
Email notification of sample receipt? Yes No

Sample Reference _____ Date sample(s) collected _____ Date sample(s) shipped _____
 Cattle Turkey Domestic Export out of U.S. _____ #in herd/flock _____
 Horse Chicken _____ #in group/fase _____
 Swine Poultry _____ Animal being shipped to: _____ #sick _____
(Specify test methods below) Destination / Date of shipment _____ #died _____
 Sheep Goat _____ Current Location of Animal(s): _____ (county, state) _____
 Rabbit Plant or Feed _____ Production Class _____
 Other _____ (e.g. beef dairy, wild catch, etc.) _____

History (clinical signs, nutrition, housing, vaccination, treatment, production level, etc. Use next page if more space is needed.)
Duration of illness: _____ Date of death: _____ Euthanized? Yes No Method/Agent used: _____ Insured? Yes No

Disease(s) or condition(s) suspected: _____ (continue on next page if necessary)
Treatments/Medications (type & when given): _____

Animal/Specimen Information (continue on back)

Lab Use	Animal Name/Specimen ID	Breed	Sex	Age in Units (days, weeks, months, years)	City	Specimen Type	Tests Requested

CAHFS, Davis: University of California, Davis, 920 N. Shields Blvd, Davis, CA 95616, (530) 752-8799, FAX (530) 752-8253
CAHFS, Turlock: University of California, Davis, 1390 N. Shields Blvd, Turlock, CA 95360, (209) 634-9837, FAX (209) 667-4351
CAHFS, Tulare: University of California, Davis, 9770 Road 112, Tulare, CA 93274, (559) 838-7542, FAX (559) 838-2555
CAHFS, San Bernardino: University of California, Davis, 100 West Central Avenue, San Bernardino, CA 92408, (951) 363-4287, FAX (951) 364-4386

I understand that specimens submitted are the property of CAHFS. Data information generated by CAHFS, and the test results from samples submitted to CAHFS, will be treated as confidential information consistent with applicable legal standards, including, but not limited to, California Business and Professions Code section 8672 and Evidence Code section 3543. Such confidential information will not be divulged to third parties without written consent of the client, except when required by law, which includes requirements that test results be provided to regulatory agencies. University, its officers, employees, and agents shall not be accountable for any loss, expense (including attorney's fees), damage, or liability of any kind resulting from an arising out of services provided hereunder unless caused by negligent or willful acts or omissions by University, its officers, employees, or agents.

Signature of Submitter: _____ Date: _____
CAHFS Form Number: 1004 (04/2017)



Dispose of Dead Birds Properly

- Only dispose of dead birds **AFTER** testing has been **completed** and it is appropriate to dispose of the carcass. If you are unsure, please contact the Sick Bird Hotline.
- To properly dispose of the carcass(es):
 1. Place the carcass in a plastic bag. Spray the inside and outside of the plastic bag with disinfectant spray (e.g. Lysol®). Seal the bag.
 2. Place the sealed bag containing the carcass in another bag. Spray the outside of the second bag with disinfectant spray.
 3. Dispose of the carcass.



Contact Us

- To Report Sick or Dead Birds, call the Sick Bird Hotline at (866) 922-2473
- For more information, visit us at: [CDFA's Avian Health website!](#)
- Like us on Facebook: [California Avian Health Education Network](#)
- Follow us on Instagram: [CAHENet](#)

