

This document provides a brief overview of the *ND Response Plan: The Red Book*. It is intended to be an easy to use reference for responders at all levels. Please see the *ND Response Plan* for details on any aspect of this guide.

Goals of a ND Response

The goals of an ND response are to

1. detect, control, and contain ND in poultry as quickly as possible;
2. eradicate ND using strategies that seek to protect public health and the environment, and stabilize animal agriculture, the food supply, and the economy; and
3. provide science- and risk-based approaches and systems to facilitate continuity of business for non-infected animals and non-contaminated animal products.

Achieving these three goals will allow individual poultry facilities, States, Tribes, regions, and industries to resume normal production as rapidly as possible. The objective is to allow the United States to regain disease-free status without the response effort causing more disruption and damage than the disease outbreak itself.

Primary Response Strategy

The United States' primary control and eradication strategy for ND in poultry is stamping-out. If the spread of ND outpaces the resources for stamping-out, or if other factors direct the response away from a stamping-out strategy alone, emergency vaccination strategies might be considered.

Factors Influencing ND Response Strategies

Detection of ND may result in emergency intervention by Federal, State, Tribal, and/or local authorities; the scope of regulatory intervention depends on the following factors:

- ◆ consequences of the ND outbreak,
- ◆ acceptance of outbreak,
- ◆ scale of outbreak,
- ◆ rate of outbreak spread,
- ◆ veterinary countermeasures available, and
- ◆ resources available to implement response strategies.

Three Epidemiological Principles of Response

Three basic epidemiological principles form the foundation to contain, control, and eradicate ND in the U.S. poultry population:

1. Prevent contact between the ND virus and susceptible poultry.
 - ◆ This is accomplished through quarantine of infected poultry and movement controls in the Infected Zone(s) and Buffer Zone(s) (Control Areas), along with biosecurity procedures to protect non-infected poultry.
 - ◆ Certain circumstances may warrant accelerating the depopulation or slaughter of poultry at risk for exposure to ND to decrease the population density of susceptible poultry.
 - ◆ There is a serious transmission risk posed by people, material, conveyances, and animals that may have been in contact with ND and serve as mechanical vectors. Contact between poultry and these items should be prevented, and transmission risk mitigated through stringent biosecurity and cleaning and disinfection measures.
2. Stop the production of ND virus by infected or exposed animals.
 - ◆ This is accomplished by rapid mass depopulation (and disposal) of infected and potentially infected poultry.
3. Increase the disease resistance of susceptible poultry to the ND virus or reduce the shedding of ND in infected poultry.
 - ◆ This may be accomplished by strategic emergency vaccination if a suitable vaccine is available and can be administered in a timely manner.



What Else Will Occur During an ND Response?

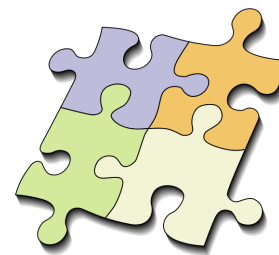
Critical activities and tools must be implemented to execute any response strategy. These activities and tools support a science- and risk-based approach that protects public health, animal health, the environment, and stabilizes animal agriculture and the economy. Some of the critical activities that will be employed are as follows:

- ◆ swift imposition of effective quarantine and movement controls;
- ◆ stringent and effective biosecurity measures;
- ◆ rapid diagnosis and reporting;
- ◆ epidemiological investigation and tracing;
- ◆ increased surveillance;
- ◆ continuity of business measures for non-infected premises and non-contaminated animal products (Secure Food Supply Plans);
- ◆ rapid mass depopulation and euthanasia, potentially including preemptive depopulation;
- ◆ effective and appropriate disposal procedures;
- ◆ cleaning and disinfection measures;
- ◆ emergency vaccination (as the response strategy indicates).

Coordinated Public Awareness Campaign

Regardless of the response strategy or strategies selected, a public awareness campaign will be coordinated. This will support the response strategy by widely disseminating key communication messages and

- ◆ engaging and leveraging Federal, State, Tribal, local, and stakeholder relationships to provide unified public messages for all audiences;
- ◆ addressing the issues/concerns relating to food safety, public health, the environment, and animal welfare; and
- ◆ addressing issues and concerns related to interstate commerce, continuity of business, and international trade.



Authorization for Response Activities

When the criteria for a presumptive positive ND case have been met (per the ND Case Definition), the Animal and Plant Health Inspection Service (APHIS) Administrator or Veterinary Services Deputy Administrator can authorize APHIS personnel—in conjunction with State, Tribal, and Incident Command personnel—to initiate depopulation. Depopulation of poultry on Contact Premises or those meeting the suspect case definition may also be warranted and conducted depending on the epidemiological information; this action will be authorized by APHIS and State/Tribal officials.

Appraisal

- ◆ State and APHIS officials approve depopulation prior to its occurrence.
- ◆ Indemnity is a key component of APHIS's disease control programs in that the promise of fair compensation for losses helps to ensure cooperation from the owners of affected poultry.
- ◆ Such cooperation is important for rapid disease control and eradication.

Mass Depopulation and Euthanasia

Due to the risk of virus amplification in infected poultry, authorized depopulation activities should be completed as quickly as possible; depending on the incident, there may be a goal to depopulate within 24 hours. Carbon dioxide and water-based foam concentrate have most commonly been used to depopulate poultry flocks. Euthanasia or mass depopulation should be provided to affected poultry as safely, quickly, efficiently, and humanely as possible. The emotion and psychological impact on animal owners, caretakers, their families, and other personnel should be minimized.

Cleaning and Disinfection (Virus Elimination)

Because of ND's high survival rate on both organic and inorganic materials, aggressive cleaning and disinfection practices (also known as virus elimination) are required for control and eradication of ND. If available personnel or materials are insufficient for cleaning and disinfection in an ND outbreak, the Incident Commander can request emergency contractors support from the National Veterinary Stockpile.

Cleaning is the removal of gross contamination, organic material, and debris from the premises. This can be mechanical, like sweeping (dry cleaning) and/or the use of water and a soap or detergent (wet cleaning). Disinfection refers to the methods that are used on surfaces to destroy or inactivate ND virus. This can be physical (e.g., heat) or chemical (e.g., disinfectant). Cleaning and disinfection activities should focus on eliminating the virus in the most cost-effective manner possible.