



**Agriculture
and Markets**

Highly Pathogenic Avian Influenza in Dairy Cattle

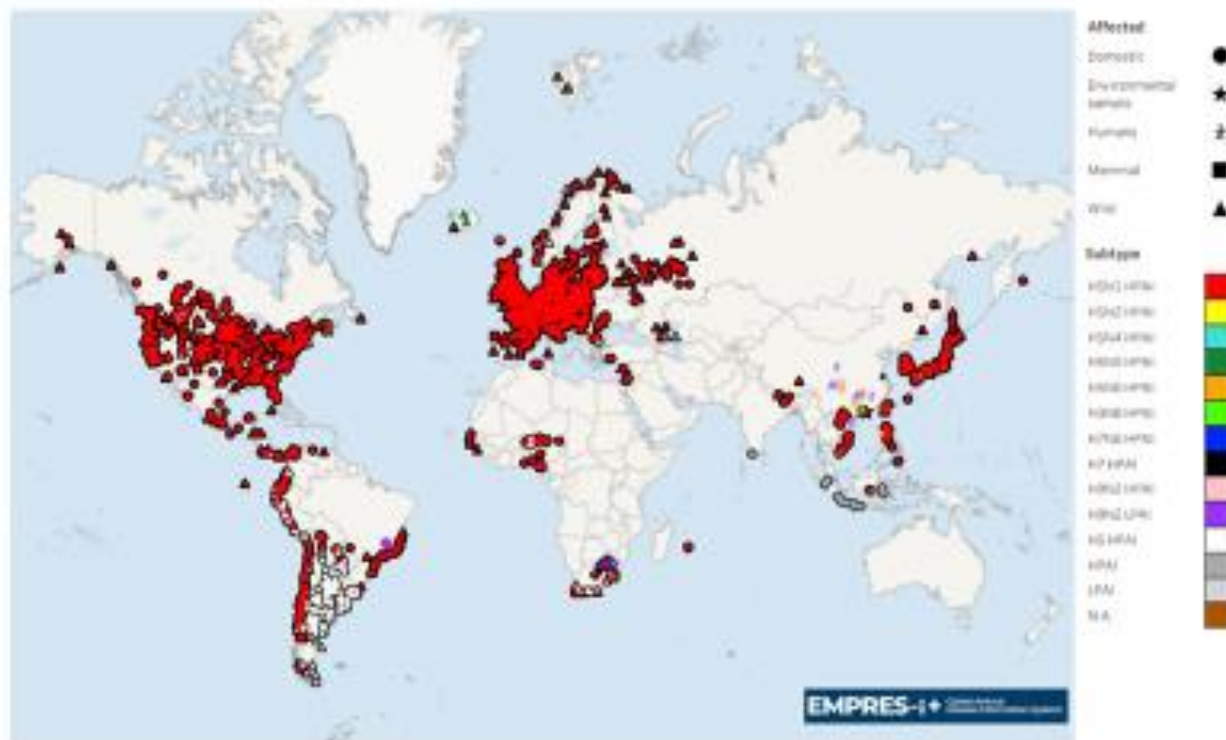
Milk Marketing Advisory Council

May 7, 2024

Joy Bennett DVM MPH DACVPM
Director, Division of Animal Industry

Global Avian Influenza Viruses with Zoonotic Potential

Oct 2022 – Sep 2023



Oct 2023 – present (current wave)



HPAI Detections in Poultry Flocks in New York

February 18, 2022 - present

Search:

New York County	Date Confirmed	Flock Type
Suffolk County	February 18, 2022	Backyard flock (non-poultry)
Dutchess County	February 24, 2022	Upland game birds (non-poultry)
Ulster County	February 24, 2022	Backyard flock (non-poultry)
Suffolk County	March 23, 2022	Upland game birds and waterfowl
Suffolk County	March 25, 2022	Upland game birds
Monroe County	March 29, 2022	Backyard flock (poultry)
Orleans County	April 5, 2022	Backyard flock (poultry)
Fulton County	April 6, 2022	Backyard flock (non-poultry)
Wayne County	November 1, 2022	Backyard flock (non-poultry)
Sullivan County	November 4, 2022	Backyard flock (non-poultry)
Queens County	November 12, 2022	Other
Suffolk County	January 25, 2023	Backyard flock (non-poultry)
Columbia County	February 15, 2023	Backyard flock (poultry)
Allegany County	March 17, 2023	Captive wild birds
Washington County	March 21, 2023	Backyard flock (non-poultry)
Tompkins County	March 22, 2023	Upland game birds (poultry)
Queens County	March 22, 2023	Other
Queens County	April 5, 2023	Other
Putnam County	April 12, 2023	Backyard flock (poultry)
Putnam County	April 17, 2023	Backyard flock (poultry)
Kings County	April 18, 2023	Other
Kings County	July 25, 2023	Other (live poultry market)
Kings County	July 28, 2023	Other (live poultry market)
Kings County	August 3, 2023	Other (live poultry market)
Dutchess County	December 12, 2023	Upland game birds (poultry)



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HPAI in Poultry in New York

May 2023 – Apr 2024

- July 25, 2023 – Kings County / LBM
- July 28, 2023 – Kings County / LBM
- Aug 3, 2023 – Kings County / LBM

- Dec 12, 2023 – Dutchess County / Upland game birds
 - *4178 partridge, pheasant, chukar*
- Feb 26, 2024 – Onondaga County / Backyard flock
 - *10 chickens*
- Feb 26, 2025 – Monroe County / Backyard flock
 - *21 chickens, turkeys, ducks*

- New detections in NY posted at <https://agriculture.ny.gov/animals/poultry>



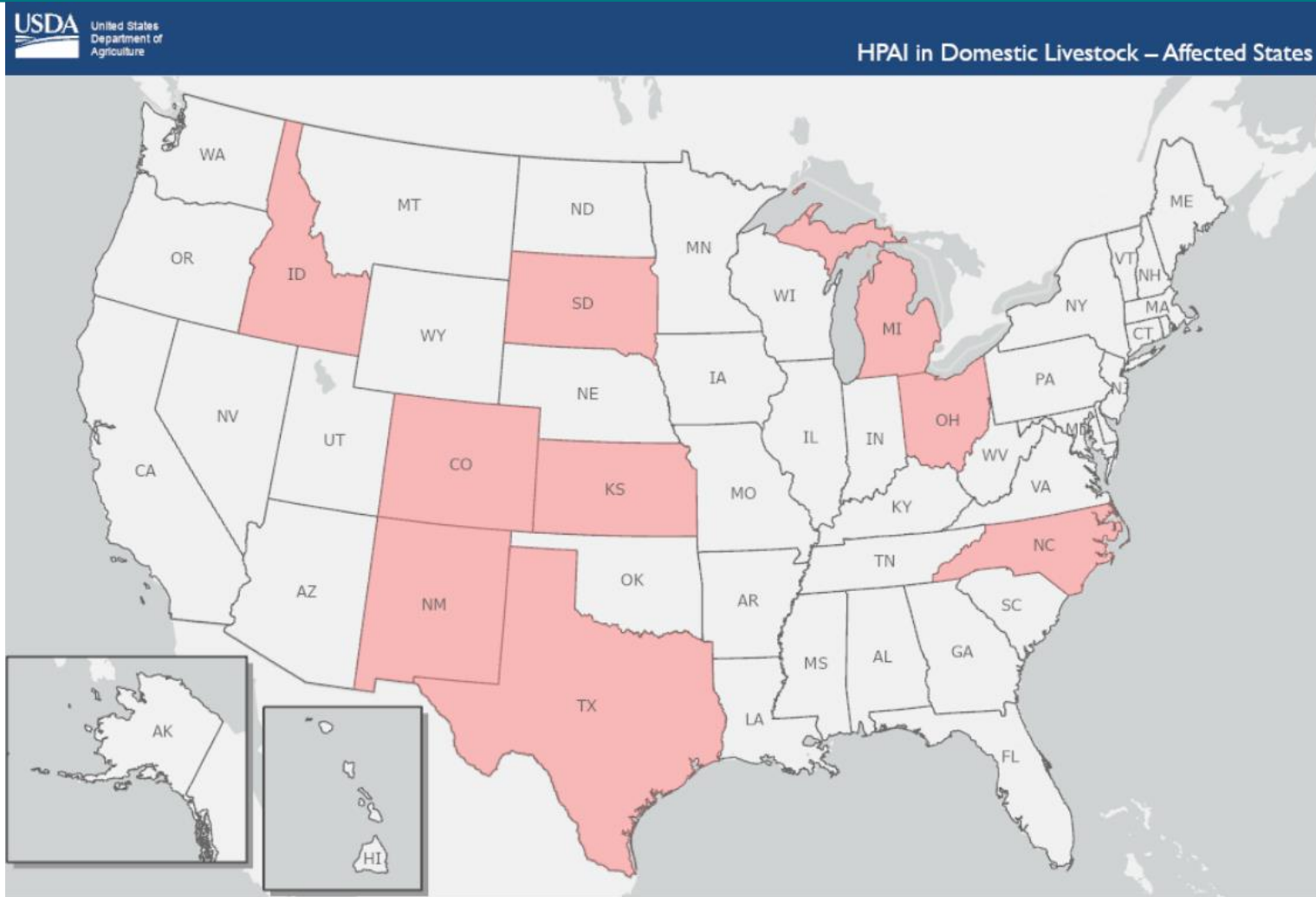
Confirmed Cases of HPAI in Dairy Cattle

First confirmed case:

- March 25, 2024

As of May 5, 2024:

- 36 dairy cattle premises affected
- 9 states



Number Herds

TX – 12
KS – 4
MI – 6
ID – 2
NM – 8
OH – 1
NC – 1
SD – 1
CO – 1

HPAI in Dairy Cattle

- Detected in Texas on March 25, 2024
- Wild migratory birds are believed to be the initial source of introduction
- The HPAI virus detected was H5N1 Eurasian lineage goose/Guangdong clade 2.3.4.4b
 - Same strain and clade that has been circulating in wild birds and commercial poultry
- Species of wild birds found dead on affected TX dairy farms
 - Pigeons, blackbirds, grackles
- Dead cats also found on affected TX dairy farms

HPAI in Dairy Cattle

- High viral load in milk, lower in nasal secretions
- Virus detected in lung from an asymptomatic cow at slaughter
- Spread between cows within the same herd
 - Mechanical means through milk / milking process
 - Other routes of transmission?
- Spread farm-to-farm
 - Animal movements
 - People, equipment, vehicles, etc.
 - USDA and affected states are working on epidemiology studies



New York State Emergency Order

- Issued April 17, 2024
- Prohibits all importation of dairy cattle into New York from affected or suspect premises; and
- Requires that all dairy cattle imported from an affected state:
 - are accompanied by a Certificate of Veterinary Inspection (CVI) signed by an accredited veterinarian within **10 days prior to entry** into NY; and
 - the CVI must contain the following statement:

"All animals identified on the Certificate of Veterinary Inspection (CVI) have been examined and do not originate from a premises with a confirmed detection of Highly Pathogenic Avian Influenza, or that is currently under investigation as a suspect premises."

Federal Order

- Issued April 24, 2024
- Requires testing of lactating dairy cattle prior to interstate movement
- Requires reporting of positive influenza A test results in livestock by laboratories and state veterinarians to USDA
- Requires owners of herds in which dairy cattle test positive for interstate movement to provide epidemiological information, including animal movement tracing.

These requirements are immediate for lactating dairy cattle; and may apply to other classes of cattle if shown to be a potential risk in the spread of this disease

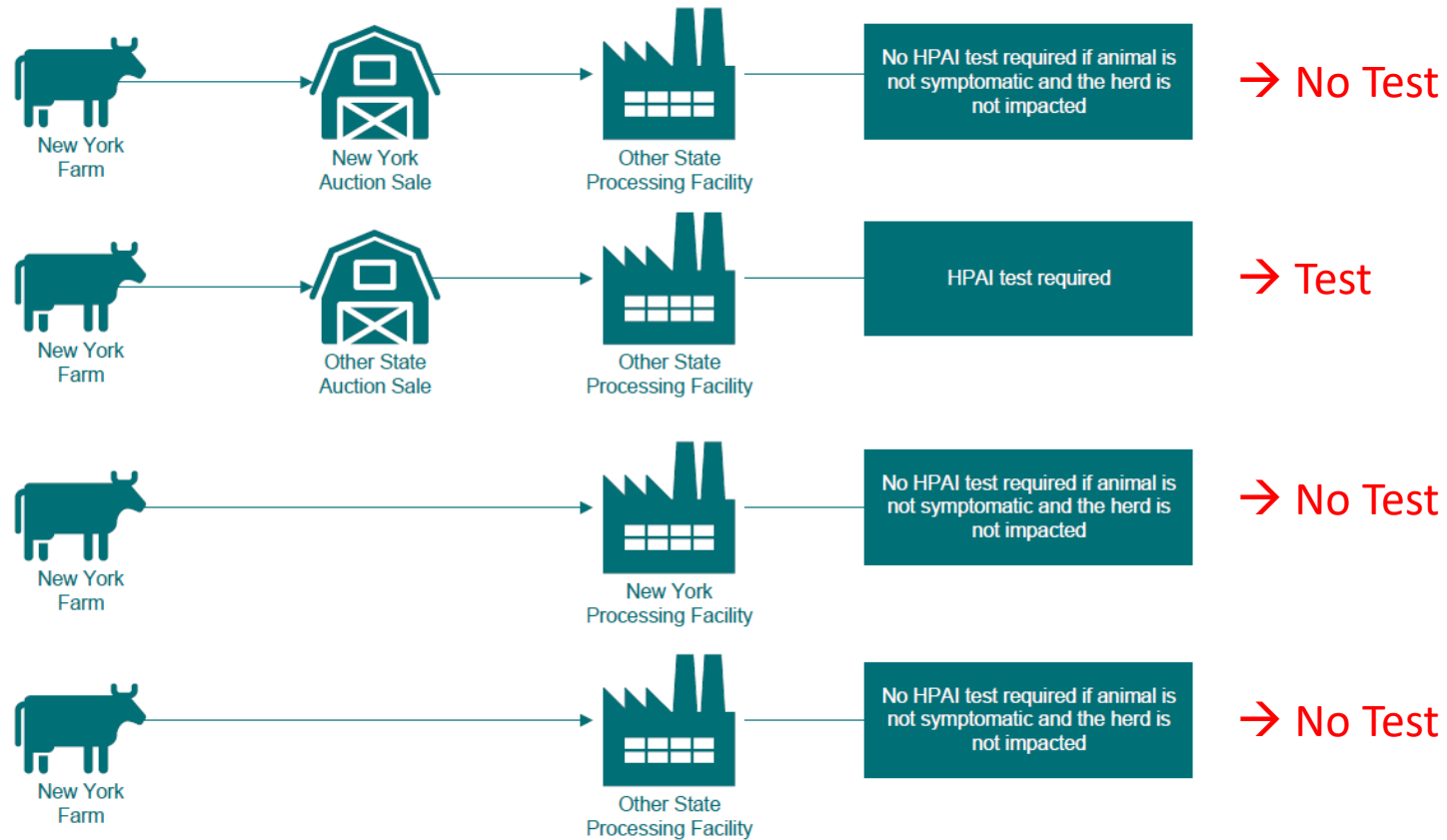
Requirements for Interstate Movement

- Healthy lactating dairy cattle (no signs of illness)
 - Must be tested prior to interstate movement (milk sample)
 - Sample must be collected within 7 days prior to movement
 - Must be tested at a NAHLN Lab
- Non-lactating dairy cattle including heifers, dry cows, and bull calves
 - Testing is recommended prior to interstate movement but not required
 - Recommended sample type = nasal swab
- Clinical (sick) lactating dairy cattle are NOT eligible for movement
 - Signs of HPAI include sudden drop in feed intake, marked drop in herd level milk production, thickened or colostrum-like milk, respiratory signs, low-grade fevers.

Lactating Cattle Moving to Slaughter

HPAI Testing Protocol for Dairy Cattle Going to Slaughter Based on Guidance as of April 27, 2024

DO I NEED TO TEST?



* according to federal order, some states may impose additional requirements

Lactating Cattle Moving to Slaughter – Required Documentation

- If moving direct to slaughter in another state, must have either a:
 - Certificate of Veterinary Inspection, OR
 - Other documentation of movement approved by the sending and receiving state animal health officials

Owner Hauler Statement for Lactating Dairy Cow Transport to Slaughter

Origin State (Select One)

Destination State (Select One)

Owner		Hauler (if different)	
Name:		Name:	
Address:		Address:	
City, State Zip:		City, State, Zip:	
Phone:		Phone:	
Premises ID:		Date of Movement:	

Origin Location (if different from owner)		Destination	
Name:		Name:	
Address:		Address:	
City, State Zip:		City, State, Zip:	
Phone:		Phone:	

# Animals	Breed	Class

Certificates of Veterinary Inspection

- All lactating dairy cattle moving interstate must be accompanied by a CVI per [9 CFR Part 86](#).
 - All cattle on the CVI must have individual official identification.
 - The individual official identification must be recorded on the CVI.
 - The CVI must include a statement that the cattle are free from, and have not been exposed to, a known contagious and infectious disease.

What happens when a cow tests positive?

- Samples may take 1-3 days for results at a NAHLN lab
- Positive samples will be confirmed at NVSL
- Samples may take 1-2 days for results at NVSL
- Animals must not move while tests are pending
- Sick animals should be isolated from the rest of the herd



What happens when a cow tests positive?

- Movement restrictions will be placed on the affected herd
- All lactating cattle in the herd will be quarantined for 30 days
- After the 30 day period, they may be re-tested to qualify for interstate movement
- Movement of non-lactating cattle from the premises would need to be considered on a case by case basis



APHIS Recommendations for Cattle Movements

- Cattle should be moved only when necessary
- Do not move animals showing clinical signs of or exposed to HPAI
- All animals that move onto a premises should be isolated for 30 days and monitored for signs of illness
- Ensure only healthy cattle are moved and they have proper documentation (Certificate of Veterinary Inspection, Owner shipper statement, etc)
- USDA recommends premovement testing for non-lactating cattle (nasal swab)

Biosecurity

- Keep wild birds, especially wild ducks & geese, away!
- Limit the movement of visitors, vehicles, or equipment onto the premises
- Avoid housing multiple species together (poultry/pig/cattle/etc)
- Monitor herd for signs of illness and report unexplained illnesses or deaths to NYS Department of Agriculture and Markets
 - 518-457-3502
 - dai@agriculture.ny.gov
- Monitor and report any strange behavior or die-offs in wild animals immediately

Disposal of Infected Cattle

- HPAI in dairy cattle is classified as an emerging disease (vs. foreign animal disease in poultry) event by the USDA
- HPAI is a threat to poultry industry, dairy industry, wildlife, pets, and potentially to public health
 - If off-site options are utilized, heightened biosecurity is a MUST
- Composting
- Burial
- Rendering
- Landfill
- Incineration

Biosecurity Information

- [USDA-APHIS Requirements and Recommendations for Highly Pathogenic Avian Influenza \(HPAI\) H5N1 Virus in Livestock For State Animal Health Officials, Accredited Veterinarians and Producers](#)
 - www.aphis.usda.gov/sites/default/files/aphis-requirements-recommendations-hpai-livestock.pdf
- [New York State Cattle Health Assurance Program \(NYSCHAP\)](#)
 - <https://www.vet.cornell.edu/animal-health-diagnostic-center/programs/nyschap>
- [NMPF Biosecurity Resources](#)
 - <https://www.nmpf.org/resources/hpai/>
- [Secure Milk Supply](#)
 - <https://securemilksupply.org/milk-producers/biosecurity/>
- [Secure Beef Supply](#)
 - <https://www.securebeef.org/>



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Two Human Cases of H5N1 in the U.S.

- 1st case – April 2022
 - Reported in Colorado in an individual working on an HPAI response team who had direct contact with infected poultry
- 2nd case – April 1, 2024
 - Reported in Texas in an individual who had direct contact with infected cattle
 - Tested by CDC after reporting eye inflammation
 - Treated with antiviral, self-isolated
- Other individuals with symptoms, including conjunctivitis, associated with the affected dairies have tested negative for HPAI
- CDC reports that the current risk to the general public is low

Global Reported A(H5N1) human cases, January 2022 – April 25, 2024

- Cambodia – 11 cases (10 clade 2.3.2.1c, 1 not reported)
 - 1 asymptomatic
 - 2 mild illness
 - 3 severe illness, survived
 - 5 critical illness, died
- Chile – 1 case (clade 2.3.4.4b)
 - 1 critical illness, survived
- China – 2 cases (clade 2.3.4.4b)
 - 1 critical illness, died
 - 1 severe illness, outcome not reported
- Ecuador – 1 case (clade 2.3.4.4b)
 - 1 critical illness, survived
- Spain – 2 cases (clade 2.3.4.4b)
 - 2 asymptomatic
- United Kingdom – 5 cases (clade 2.3.4.4b)
 - 5 asymptomatic
- United States – 2 cases (clade 2.3.4.4b)
 - 2 mild illness (fatigue, conjunctivitis)
- Vietnam – 2 cases (1 clade 2.3.2.1c, 1 not reported)
 - 1 critical illness, survived
 - 1 critical illness, died
- Nearly all human cases of HPAI reported since Jan 2022 had recent exposure to sick or dead poultry
- No cases of human-to-human transmission were identified
- 14 cases had severe or critical illness, 7 died (3 children, 4 adults)
- 13 cases associated with clade 2.3.4.4b HPAI (H5N1) and 11 cases were assoc. with clade 2.3.2.1c HPAI (H5N1) viruses in Cambodia and Vietnam
- No significant mammalian adaptations have been identified, in particular in the HA gene, → important for zoonotic and human-to-human transmission.

Questions?

