National Silo Monitoring of Highly Pathogenic Avian Influenza (HPAI) in Grade “A” Bulk Raw Cow’s Milk Stored at Dairy Processing Facilities

Informational Webinar for Dairy Industry

Hosted by: USDA, NCIMS, FDA

December 10, 2024
December 11, 2024

USDA
U.S. DEPARTMENT OF AGRICULTURE

NCIMS

FDA U.S. FOOD & DRUG ADMINISTRATION

Agenda

- Background
- Why are we monitoring milk in silos?
- What is the monitoring strategy?
- What is the role of the dairy industry?

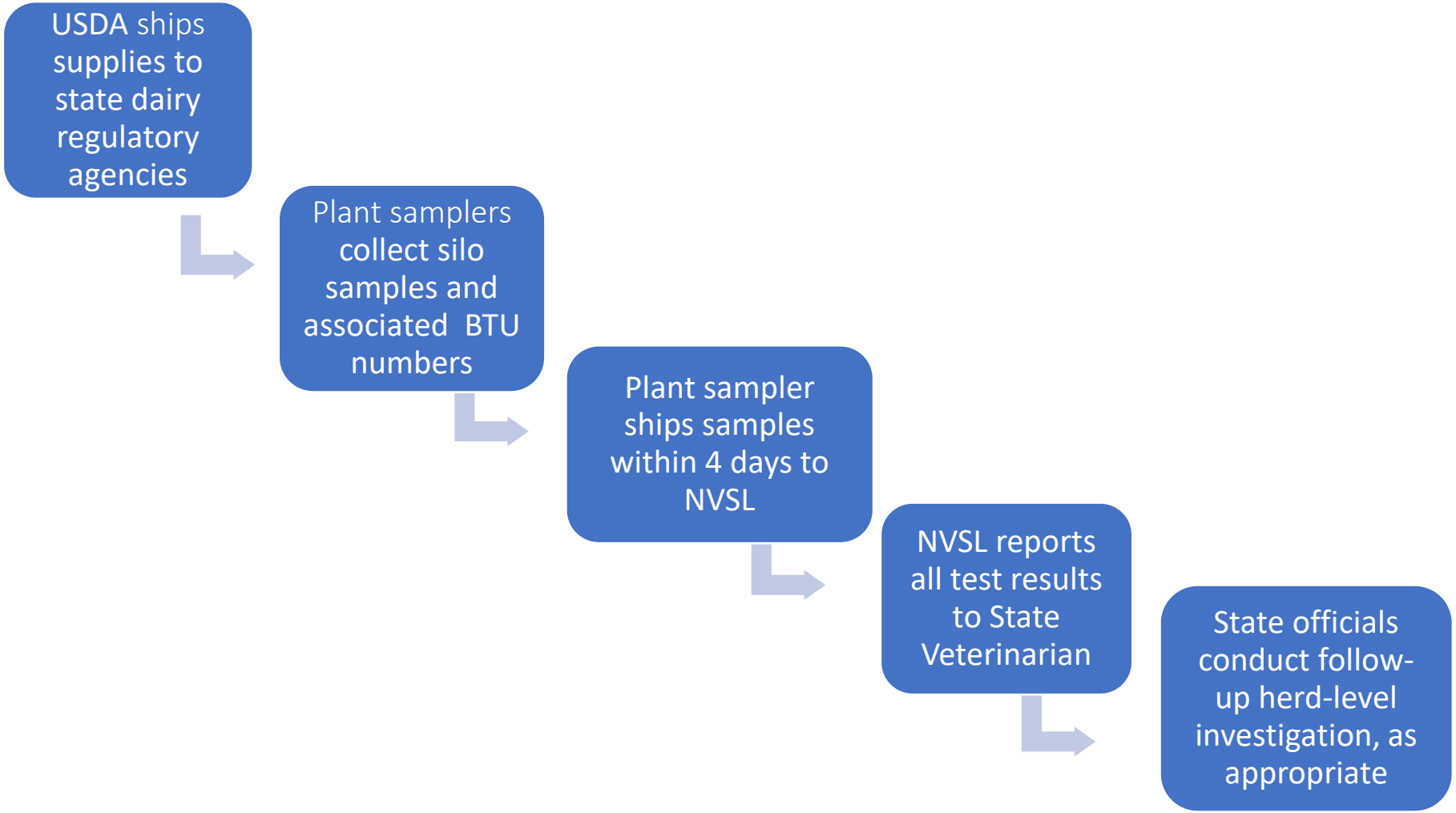
Background on HPAI

- Highly pathogenic avian influenza (HPAI) was first reported in a US dairy herd on March 24, 2024.
- As of December 11, 2024, we know of 774 farms in 16 states that have been affected.
- CDC has reported 58 human cases of avian influenza A(H5)
  - 21 of these are linked to exposure to sick poultry, 35 are associated with exposure to sick dairy cattle, and 2 unknown source

Why are we testing milk in silos?

- Silo sampling and milk testing will determine the presence and current nationwide prevalence of HPAI virus in bulk raw cow's milk at dairy processing facilities.
- Industry, state, and federal partners can gain better insight into this virus through coordinated and effective initiatives to collect data.
- Reducing the circulation of this virus is beneficial for our nation's herds, flocks, and people.
- Part of a national strategy to control the spread of HPAI to other dairy cattle and poultry flocks.

Flow Diagram for Silo Monitoring



Sample Analyses

Samples will be analyzed for:

- qRT-PCR: Test for presence of influenza A genetic material
- ELISA: Test for the presence of influenza A-specific antibodies

If viral genetic material is detected (CT value <35):

- Whole genome sequencing (WGS) to characterize the virus

Sample Collection

- Samplers will record BTU numbers associated with the milk in the silo at the time of sampling. Locations of processors and silos will not be recorded.
- One sample will be collected from each silo containing Grade "A" milk intended for pasteurization at each processing facility that receives Grade "A" bulk raw cow's milk.
- Samplers will be state regulatory plant samplers.
- Collected at sampler's discretion at least 4 times every six months with the goal of eliminating the virus from U.S. dairy herds.

Facilities to Sample

- **Do Sample:**
  - Processing facilities of any size that receive Grade "A" raw milk intended for pasteurization.
  - Both IMS-listed and non-IMS listed facilities that receive Grade "A" raw milk.

Facilities NOT to Sample

- **Do NOT Sample:**
  - Facilities that manufacture raw milk cheese (aged, thermized, or otherwise not pasteurized) or other raw milk dairy products from Grade “A” cow’s milk.
  - Facilities that receive only unpasteurized processed raw bulk milk products.
  - Facilities that receive only milk from non-IMS listed producers (i.e. none of the milk received is associated with a BTU).

What happens with the data?

- Only the state, date of collection, and BTU numbers are identified for each sample.
- The identity and locations of processors and silos will not be recorded by the samplers.
- State animal health officials will receive silo sample test results.
- State agencies will collaborate to conduct follow-up herd-level investigations as appropriate.

Timeline and Next Steps

- 12/6: Federal Order for milk sampling published.
- 12/6: USDA sends letter requesting states to order supplies and collect samples.
- Beginning 12/6: State Regulatory Agencies request supplies from USDA.
- 12/9: USDA begins shipping sample collection materials.
- 12/10 and 12/11: Informational webinars are held for state regulatory officials (dairy and animal health) and dairy industry.
- 12/16: Sample collection starts.