

## HPAI Lessons Learned - Layers

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In early 2015 the Midwest US experienced an outbreak of HPAI. This outbreak started in turkeys and then spilling over into layers in MN, WI, SD, IA and NE. When it was all over approximately 40 million layers and associated pullets were depopulated due to the disease. After this traumatic event it is time to look back and assess what went well and what did not.

Several of the opportunities for improvement will focus on the front end of the disease. Some farms' delayed detection by only submitting samples due to a significant rise in mortality. Based on data from farms that were detected on surveillance this disease can simmer for a while in a caged layer facility. By the time mortality starts to increase the disease has reached critical mass and viral load increases exponentially. In some instances diagnosis was delayed due to long drive times and a lack of after-hours laboratory availability. MN tackled this issue by setting up couriers to deliver samples to the laboratories. These couriers provided excellent biosecurity information and managed the process well. Other states chose to recommend producers mail samples. This method lacked in both biosecurity and expediency.

In the midst of an on-farm outbreak some new opportunities came to light. First would be the overall lack of a farm specific catastrophe plan, especially revolving around depopulation and disposal. The outside crews used to perform these tasks added many extra people to a contaminated site. While farm staff seemed to only rarely challenge the clean/dirty line, outside contractors went back and forth with both people and equipment many times per day. This puts unnecessary strain on the decontamination process. This outbreak also occurred in an area of low human population density with caused comingling of depopulation contractors with normal farm employees at places like gas stations, restaurants, etc. Too many movements also kept occurring during the outbreak: propane, garbage, rendering, pullets. An immediate movement ban may be inconvenient but can provide value in a rapidly changing situation.

Now in the aftermath there still are producers out there that are not taking this serious. There is a perceived site immunity from having a truck wash, showers, audit, etc. Everyone need to focus on items the actually go in the barn. Pullet moving equipment, spent hen equipment, kill carts, CO2 tanks, employees, supplies. Implementation of a simple Danish entry is an effective way to reduce risk from employees and contractors. As much equipment as possible should be farm specific. Procedures need to be validated with tools such as GLOW GERM, salmonella testing of pullet/spent hen equipment and internal auditing.