

# AVIAN HEALTH INTERNSHIP COLORADO

Intern: Emily Jacoboski, DVM Class of 2024

Mentors: Ragan Adams, DVM, Veterinary Extension Specialist, CVMBS  
Heather Reider, Avian Health Coordinator, VDL CSU  
Raye Walck, Director Western Slope VDL CSU

## PROJECT INTRODUCTION

During the summer of 2021, I participated in a ten week Avian Health internship across the state of Colorado. I worked closely with the Veterinary Diagnostic Laboratory's Avian Diagnostic team and Dr. Ragan Adams to understand state-wide biosecurity practices, monitor disease prevalence in flocks, and provide educational outreach to poultry owners.

The Avian Diagnostic team offers disease testing services and flock health support, including NPIP certification, to commercial operations, backyard flocks, waterfowl, gamebird facilities, pet birds, and country shows and fairs. The National Poultry Improvement Plan (NPIP) is a program intended to improve and monitor for salmonella pullorum-typhoid in poultry and poultry products traded across state lines.

## INTERNSHIP GOALS

The goals of this internship were multifaceted and included:

- Gaining a better understanding of the importance of biosecurity in poultry operations
- How to implement and improve upon biosecurity plans for a variety of poultry operations
- Learn about the role of the National Poultry Improvement
- Understand the role of poultry production in the state of CO
- Improve poultry handling and diagnostic sampling techniques

## HOW DOES THIS APPLY TO YOUR EDUCATION

As a vet student, I think it's important to be well-rounded in animal handling and medical knowledge for a variety of species. I am passionate about working with poultry, so it was incredibly beneficial to gain more experience in the industry, considering these species are not typically covered at length in the CSU veterinary curriculum.

As someone who is considering a career in livestock and production, I have a responsibility to future clients and patients to be agriculturally literate and aware of relevant topics in production animal medicine. Interacting with diverse groups of individuals during this internship was incredibly important for improving my communication skills and understanding needs of future clients.

## WHAT YOU DID

When working with the Avian Diagnostic team on the Front Range:

- Swabbed chickens, turkeys, and gamebirds for avian influenza
- Completed certifications of NPIP flocks
- Conducted plate agglutination surveillance for salmonella PT
- Traveled extensively to poultry operations across the state
- Prepared and packaged testing supplies for a variety of flock types and events
- Utilized proper cleaning and unpacking techniques to minimize spread of disease between flocks and diagnostic labs
- Completed proper sample handling and paperwork
- Attended country fairs and shows to inspect birds for ectoparasites and other health issues
- Educated the public about avian health and husbandry, as well as CSU's avian programs

When working with Dr. Ragan Adams:

- Attended and took notes for a Colorado Department of Agriculture (CDA) table top on a hypothetical Highly Pathogenic Avian influenza (HPAI) outbreak in Colorado
- Explored the role of backyard flocks in major disease outbreaks
- Observed biosecurity practices for a wide range of poultry operations
- Communicated with owners about improving biosecurity and poultry health in their flocks

When working with Dr. Raye Walck in the Western Slope Veterinary Diagnostic Laboratory:

- Learned proper necropsy technique for poultry and fish
- Reviewed biosecurity plans for large-scale operations
- Visited large-scale, commercial organic layer and grower operations
- Visited commercial feather facilities
- Observed how a diagnostic laboratory is run
- Gained experience in poultry blood draw techniques
- Toured a sale barn and discussed responsibilities of veterinarians at livestock auction

## WHAT YOU LEARNED

After completing this internship,

- I understand the role of biosecurity in controlling disease outbreaks in poultry flocks and how to create an effective biosecurity plan for a variety of flock types.
- I have gained confidence handling peafowl, waterfowl, gamebirds, chickens, and turkeys of different ages and production purposes.
- I have become comfortable communicating with flock owners about the health of their birds and how to improve their operations.
- I am aware of all major poultry diseases, and I can recognize signs of disease in a variety of poultry species.
- I know proper, species-specific techniques for avian influenza swabbing.
- I know how to properly collect blood samples and interpret salmonella pullorum-typhoid plate agglutination tests.
- I can properly submit diagnostic paperwork.
- I understand the importance of the National Poultry Improvement Program and what is required for flock certifications.
- I have greater awareness for the roles poultry operations play in the state of Colorado.
- I understand the steps that would be taken in the event of a major disease outbreak in Colorado poultry operations.

## NEXT STEPS

After attending the Colorado Department of Agriculture's (CDA) table top on Highly Pathogenic Avian Influenza, I plan to work with Dr. Ragan Adams to develop educational materials for backyard flock owners about their role in preventing major disease outbreaks in the US poultry industry. Recent outbreaks can be traced back almost entirely to backyard flocks, but these small-scale operations are not adequately regulated or accessible in the event of an outbreak. My goal is to educate backyard flocks about the importance of disease prevention and how the CDA reacts during a major outbreak event.