

Duck Production on the other side of the “Pond”

Jim Jurgielewicz, DVM

March 13, 2025

Introduction

- Pennsylvania
- WSU Vet
- Short list of duck specific vets in North America
- Joe Jurgielewicz & Son and Culver Duck
- Pekin ducks



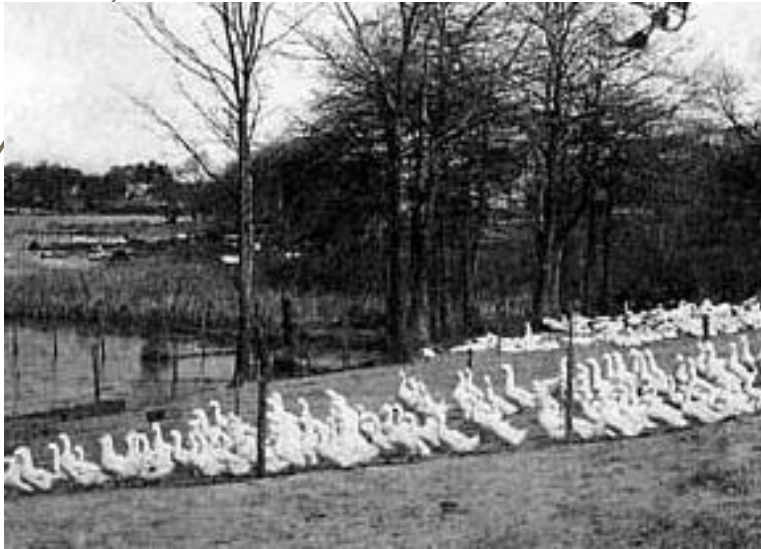
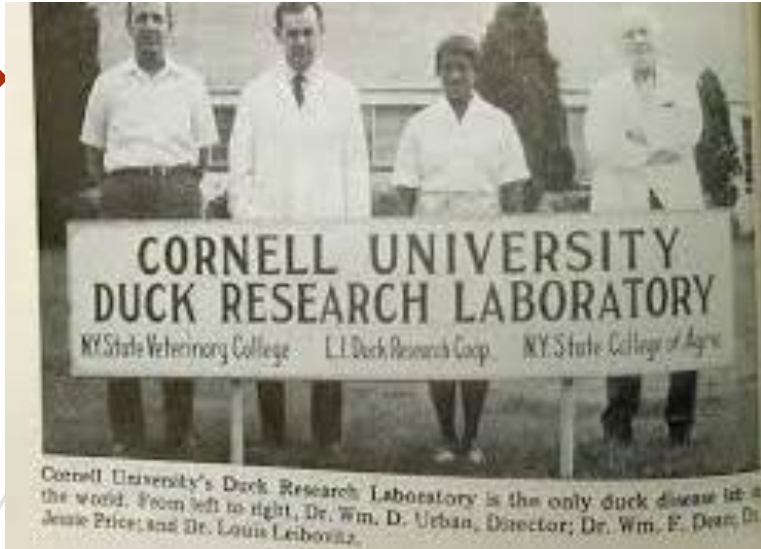
Who cares about ducks?

- Family Business
 - 4 generations
- Clients
 - Asian distributors
 - Food service
 - Retail



History

- Long Island, New York
- Hundreds of farms to just a handful
- To the countryside



How does a duck farm operate in the US?



- Vertically integrated system
 - Genetic stock → Breeders → Hatchery → Growers → Slaughterhouse → Market

Genetic selection



- Small scale
- Limited number of lines:
 - 2 to 4 lines
 - meat and egg focused lines
- Various objectives:
 - Feed efficiency
 - Meat:fat ratio
 - TD
 - Growth rate



Breeder Housing





Hatching Ducks

- ▶ 28 days
- ▶ Washing eggs?
 - ▶ Cuticle on or off
- ▶ Single stage incubation
- ▶ Sanitation



Starter Room



Grower
Room



Transportation

General DfDx: Meat Ducks in 2010



- *Riemerella anatipestifer*
- *E. coli*
- *Staph. spp. (systemic)*
- *Pasteurella multocida*
- *Strep. spp.*
- *Salmonella*

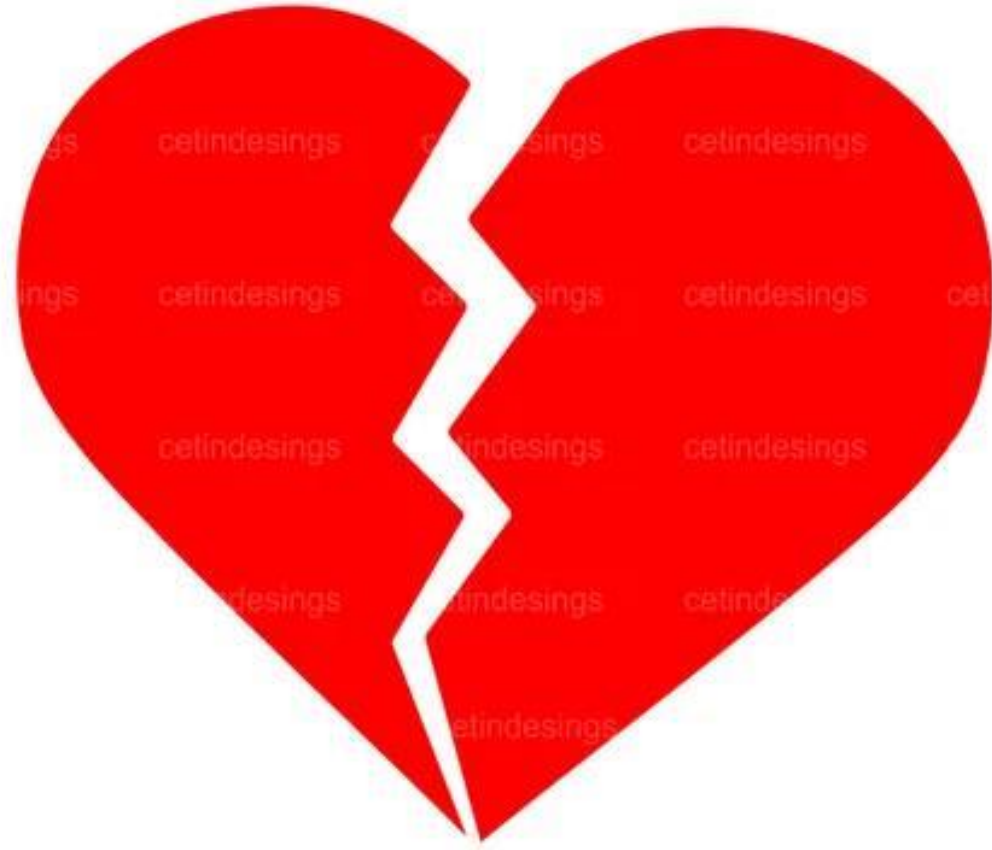
- **Outliers**
 - Mycotoxin
 - Avian Influenza
 - Duck Viral Hepatitis
 - Duck Viral Enteritis
 - Reovirus

General DfDx: Meat Ducks in 2025

- *Staph. spp. (systemic)*
- *E. coli*
- *Strep. spp.*
- *Highly Pathogenic Avian Influenza*
- *Riemerella anatipestifer*
- *Pasteurella multocida*
- Outliers
 - ▶ Salmonella
 - ▶ Mycotoxin
 - ▶ Duck Viral Hepatitis
 - ▶ Duck Viral Enteritis
 - ▶ Reovirus

Ascites syndrome

- Extremely common
 - Up to 2% of flock
- Fast growth (95g/day)
- Oxygen exchange problem
- As young as 15 days
- Management issue



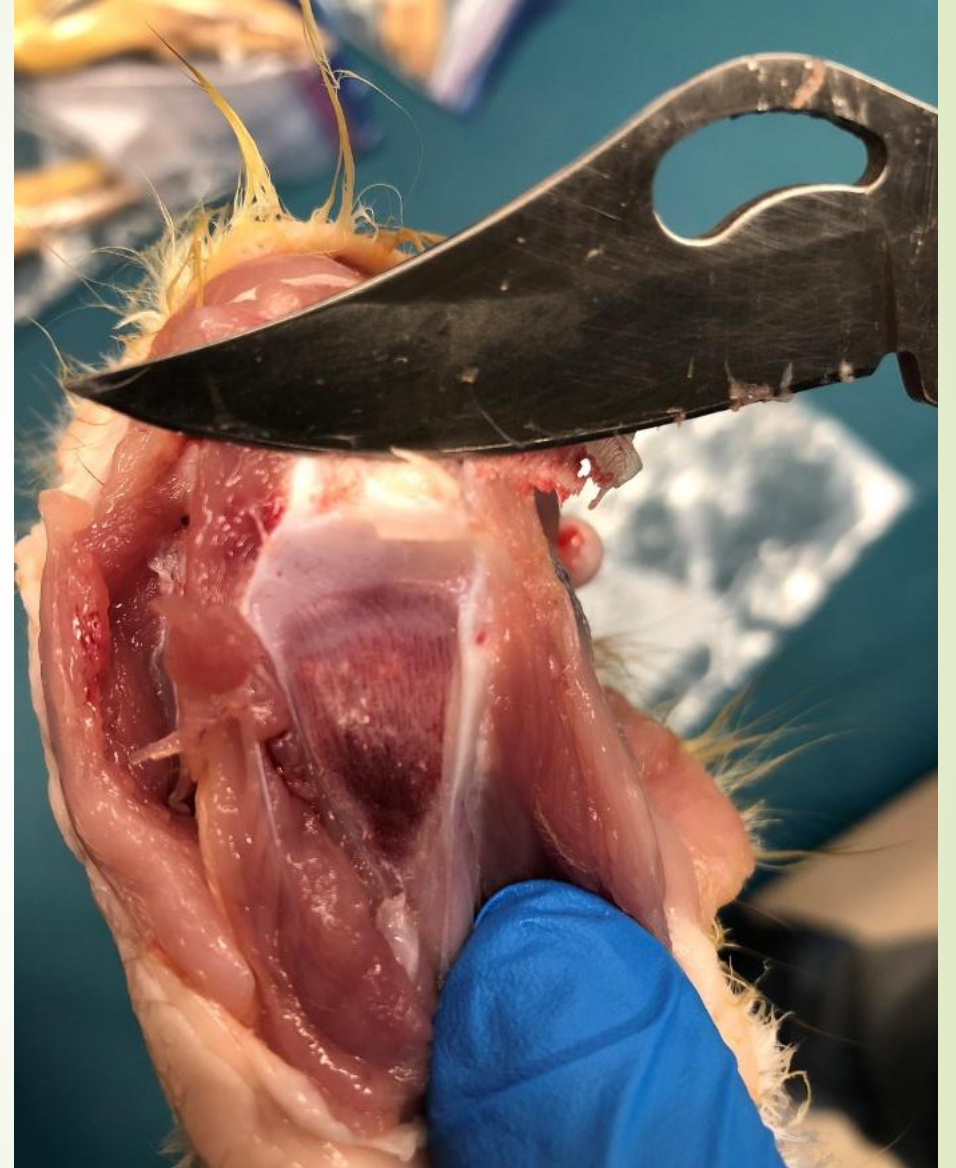


Structural
challenges

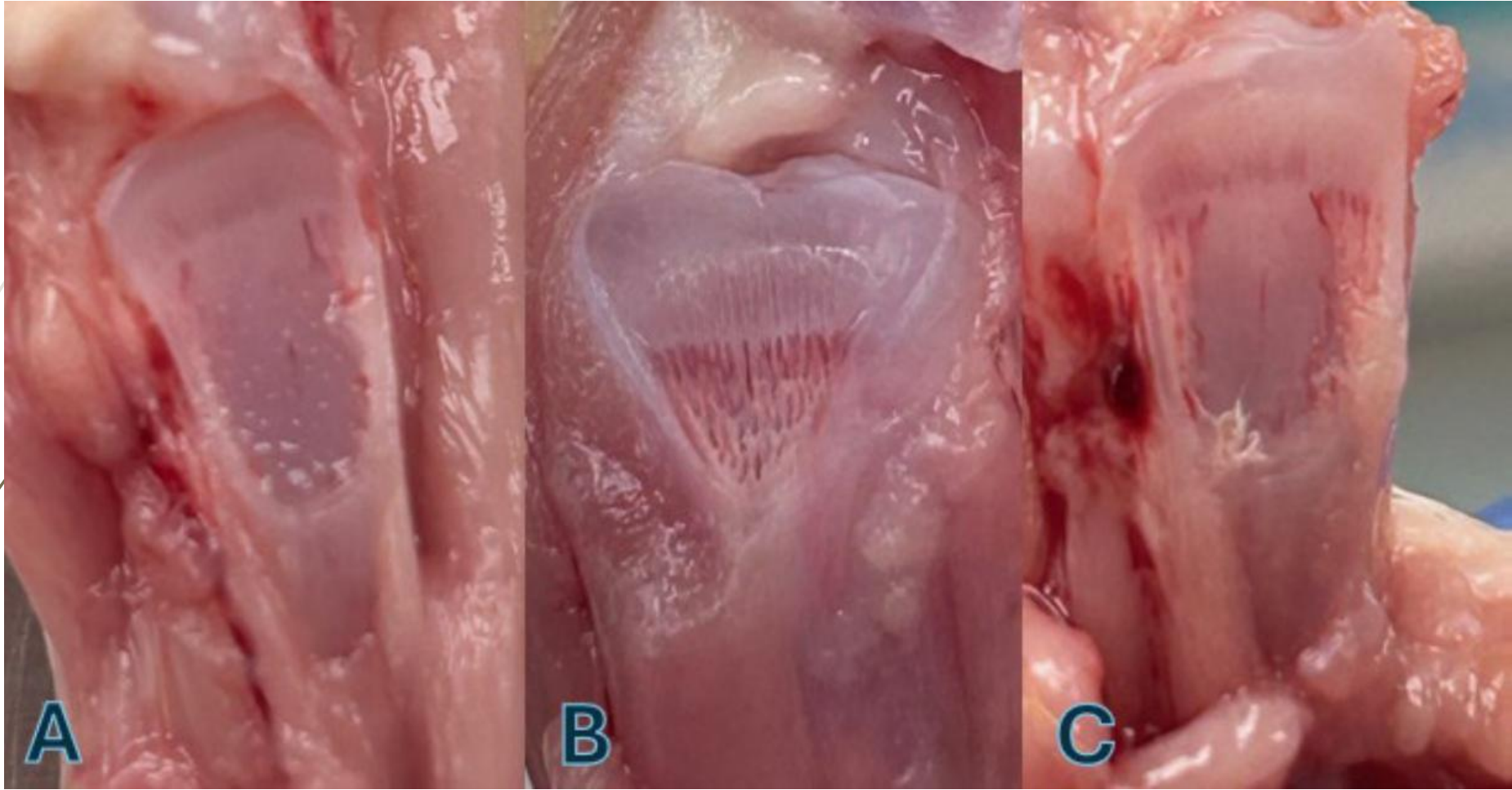
Tibial dyschondroplasia

Bacterial condro necrosis
with osteomyelitis

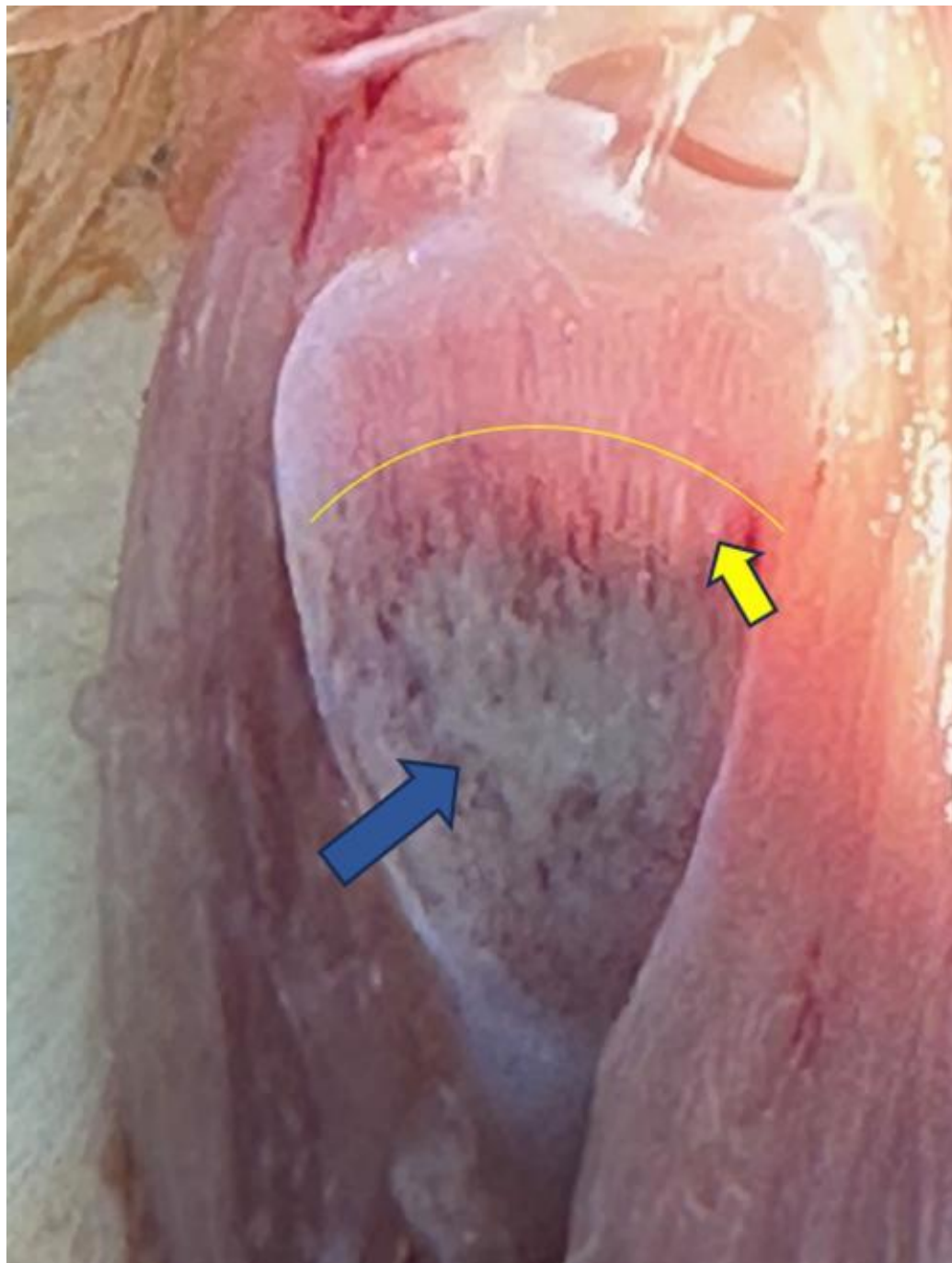
Femoral head necrosis







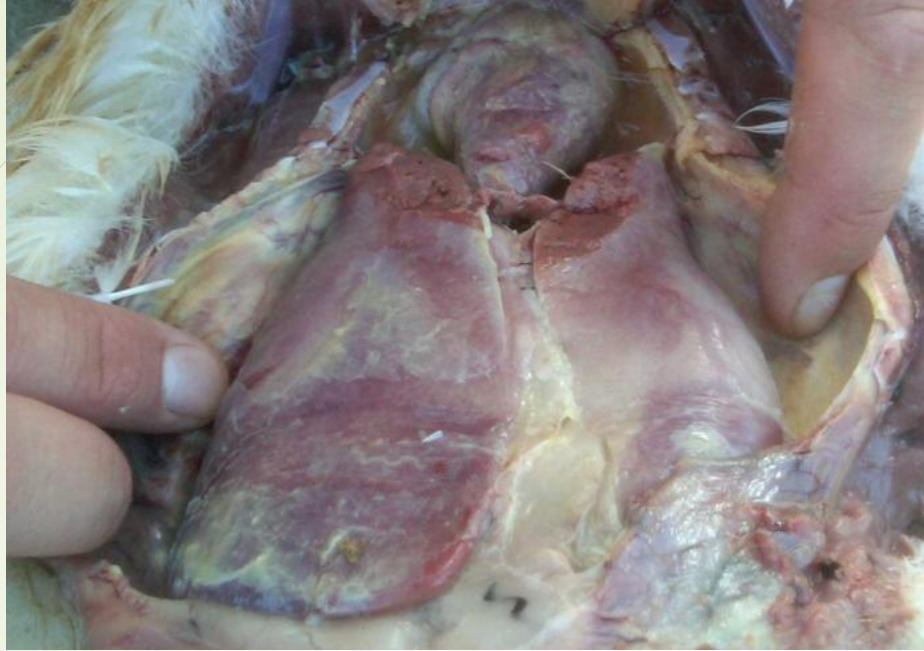
Osteomyelitis





Riemerella Anatipestifer (RA)

- Historically economically damaging
- Up to 30% mortality rate in the first 4-5 days
- Neurologic, recumbent, ocular/nasal discharge
- Typically hits in the 18-20 day old range in chronically infected barns.
- Can start as early as 11 days old when exposed in the hatchery
- Cause for vaccination in meat birds



Typical RA

Pasteurella multocida

- History of breeder problem
- Rodents, dogs, cats
- Vaccination is spotty at best
- Neurologic, severe tendonitis, nasal discharge
- Hard to get out of the barn
- Solution is better biosecurity
- Remove mortality immediately






Streptococcus spp.

- Young birds
- Sanitation problem
- Recurring flock issue likely
- Sinusitis
- Neurologic symptoms

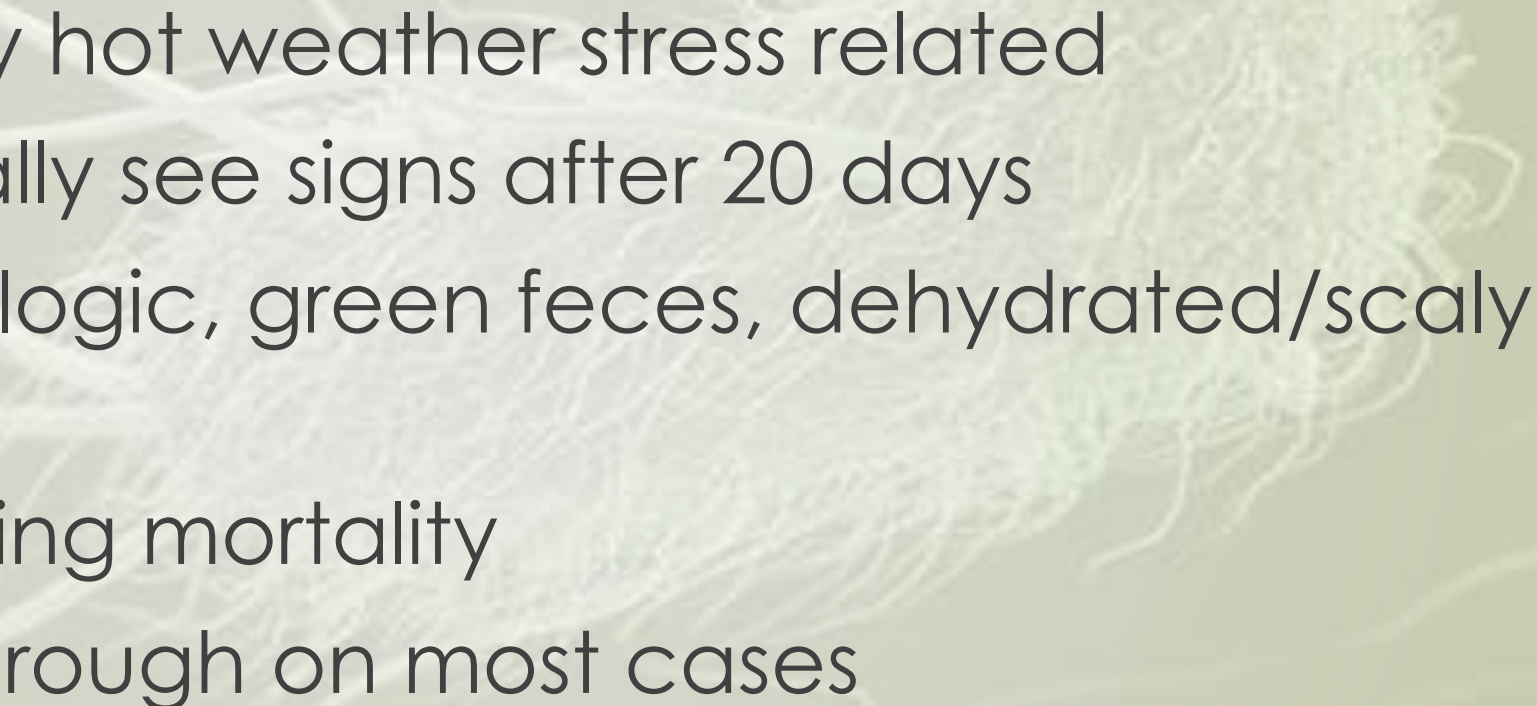


Staphylococcus spp.

- Anytime issue
 - Stressed flock, poor start
 - Swollen legs
 - Lingering mortality
 - Easy to treat when needed
- 

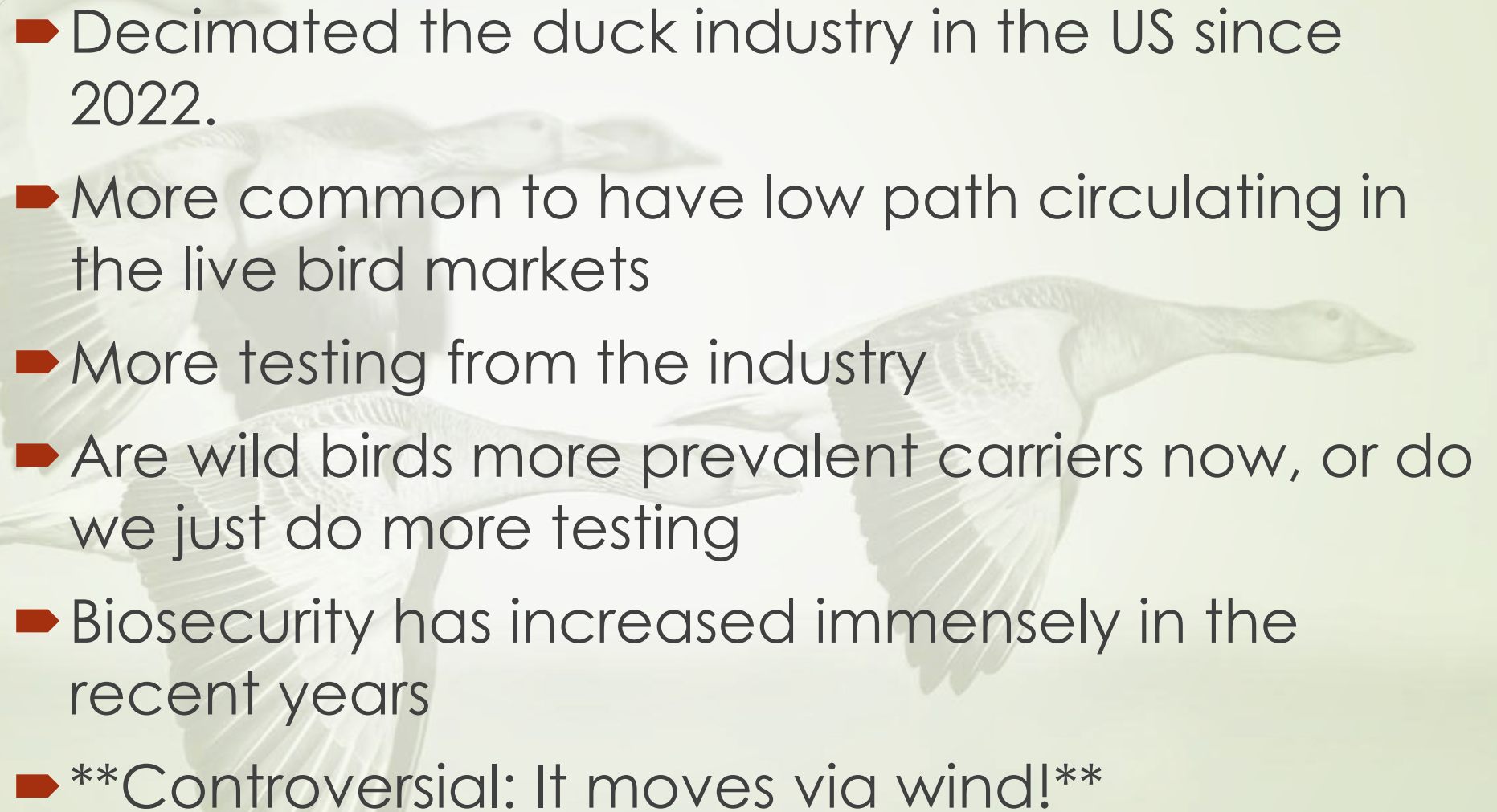


Escherichia coli

- Usually hot weather stress related
 - Typically see signs after 20 days
 - Neurologic, green feces, dehydrated/scaly legs
 - Lingering mortality
 - Cull through on most cases
- 



History of HPAI in US ducks






- 
- ▶ Decimated the duck industry in the US since 2022.
 - ▶ More common to have low path circulating in the live bird markets
 - ▶ More testing from the industry
 - ▶ Are wild birds more prevalent carriers now, or do we just do more testing
 - ▶ Biosecurity has increased immensely in the recent years
 - ▶ ****Controversial: It moves via wind!****



HPAI- Clinical signs



Breeders

-  Decreased water consumption
-  Decreased appetite in older birds
-  Drop in egg production up to 50%
-  Limited mortality
-  Have seen recovery in appetite after 4-5 days

HPAI- Clinical signs

- Meat ducks
 - Decreased water consumption
 - Decreased appetite
 - Lethargy, quiet
 - Neurologic
 - High mortality, 3 fold increases in 24 hours





HPAI- Testing

- ▶ We don't do serology for waterfowl
- ▶ PCR: Range from very low ct values of 15, up to 39
- ▶ Will demand a retest if above 35 ct or if not all tubes are "non-negative"
- ▶ Antigen capture: useless
- ▶ 22-35 cloacal swabs per barn



HPAI- Depopulation

- ▶ Non-negative H5 or H7 test means move to Depopulation
- ▶ Speed is key
- ▶ Depopulation and euthanasia are not equal
- ▶ Successful methods in the US for ducks are:
 - ▶ cervical dislocation
 - ▶ firefighting foam
 - ▶ VSD+

HPAI- Vaccination

- What's going to happen?
- Zoetis was given conditional approval to develop a vaccine for the US
- Broilers in the US have the most to lose. Still too many what ifs on trade
- Duck producers would use it on young parent stock



HPAI- Lessons

- ▶ Biosecurity
 - ▶ Old concept reestablished
 - ▶ Wish we knew of all the times it worked to help our story
 - ▶ Fogging eggs before they enter the hatchery
 - ▶ Spreading farms and genetic lines out geographically
 - ▶ Danish entry
 - ▶ Clean trailers. What's clean mean



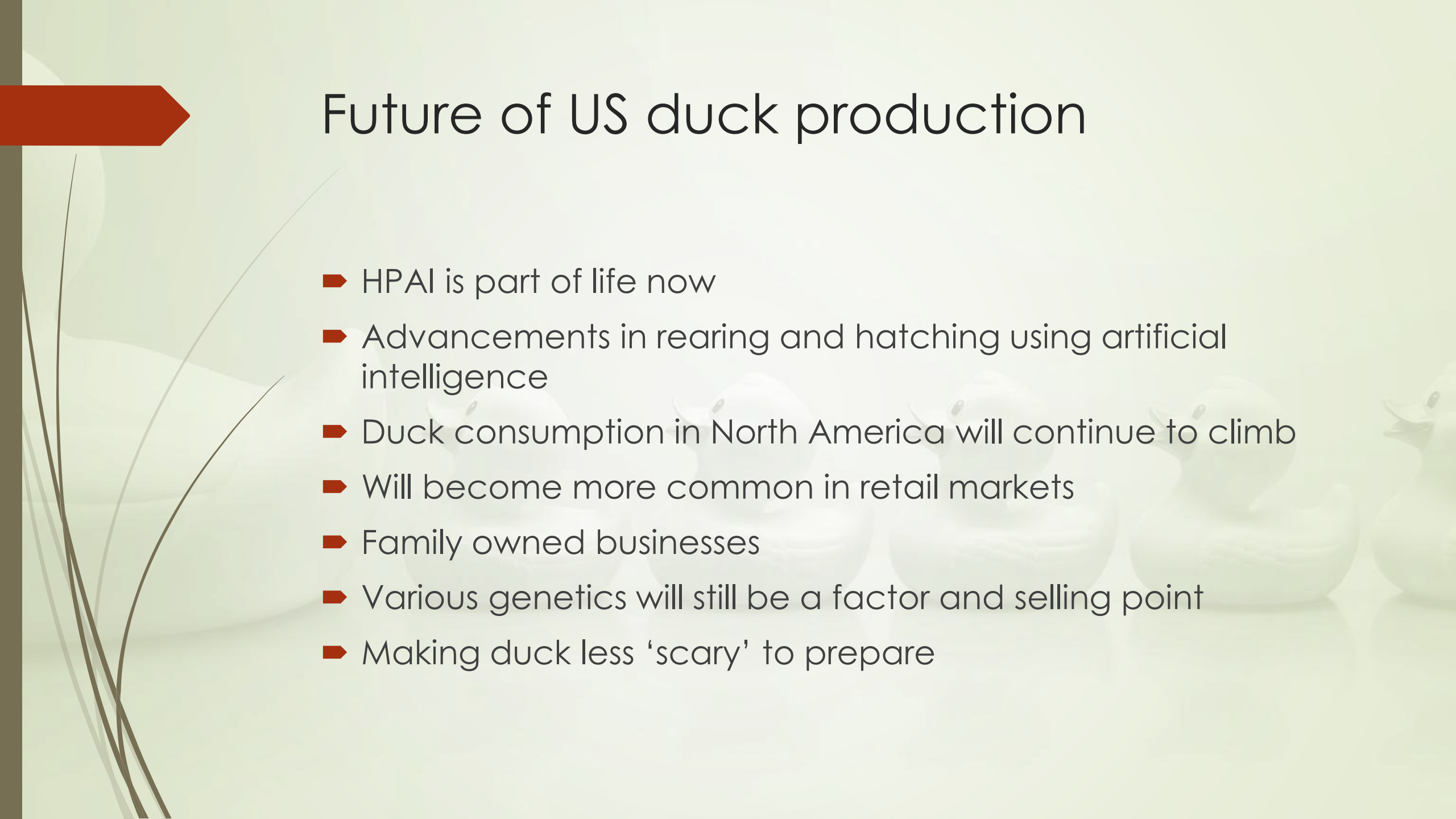
HPAI- Lessons

- ▶ Be prepared:
 - ▶ Dedicated response equipment
 - ▶ Farm biosecurity plans
- ▶ Testing time pre movement is a juggernaut. What's reasonable for the farm and what are lab capabilities
- ▶ Don't let regulatory run over you and your clients, use the science
 - ▶ The US laws are written with a lot of gray areas
 - ▶ Use your common sense





Future of US duck production

- HPAI is part of life now
 - Advancements in rearing and hatching using artificial intelligence
 - Duck consumption in North America will continue to climb
 - Will become more common in retail markets
 - Family owned businesses
 - Various genetics will still be a factor and selling point
 - Making duck less 'scary' to prepare
- 



Thank you for the opportunity!
Questions?

drjim@tastyduck.com