

Day-Old Chick Quality – Everyone's Business

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Chick Propagation

Coordinator

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General Statements

- Not just a hatchery issue
- Many factors affect chick quality
- All aspects of gamebird industry affected
- Day-Old chick quality affects bird performance all the way through to the mature bird

- Quote: “We broke the theory that factors affecting chick quality are not only a 7 and 10 day mortality issue. Chick quality issues may carry as long as through the next breeding cycle.” Dr. Gorica Sposojevic, Willmar Poultry

Factors Affected by Chick Quality

- Viability
- Vitality
- Disease Resistance
- Feather Quality
- Body Weight
- Conformation
- Uniformity of Flock
- Leg Quality
- Hunt Bird and Breeder Performance

Hatchery's Role

- Listlessness
- Dull eyes
- High percentage of deformities
- Inform brooder manager of concerns

Brooder Staff Role

Trained to Recognize Problems

- Listlessness
- Hyperactivity
- Storming waterers
- Number of DOA at farm
- Uniformity of group
- Feathering

Open Chicks That Die

- Yolk sac size
- Signs of infection
- Dehydration

Grow Out Staff Role

Trained to Recognize Problems

- General health
- Uniformity
- Behavior

Mature Bird Customers

Examine Birds on Arrival

- Feather quality
- Vitality
- Flightiness
- Uniformity

Visit Source of Birds

- Biosecurity
- Egg/chick handling
- Brooding procedures
- Grow out procedures
- Establish relationships between producer and customer

Genetics/Breeder Flock Management

Breeder Selection/Genetics

- Choose birds from good hatches
- Choose birds that did well in brooding and grow out
- Avoid birds previously challenged by disease
- High vigor
- Uniformity in group
- Good feathering

Breeder Selection/Genetics (cont'd.)

- Good breast muscle development
- Straight toes and legs
- Clear eyes with no signs of conjunctivitis
- Nostrils not watery or swollen (sinusitis)
- Vent area free of fecal matting (enteric)
- No ectoparasites (dust preventively)

Breeder Flock Management: Nutrition

- Nutrients into the hen – nutrients into the chick
- Influences are many and often hard to identify
- Keep feed samples from all feed deliveries
- Example of nutrient influences on chick quality
- L-carnitine (Swiss study)
- Calcium (Dr. Spasojevic)
- Protein/metabolizable energy (sources important)
- Can be difficult to identify

Breeder Flock Management

- Stress reduction
- Disease prevention
- Biosecurity
- Good flock health management

Breeder Flock Management

- Egg collection
- Proper egg washing
- Initial storage

Hatchery Management: Egg Handling

- Proper trayng
- Egg storage temperature
- Albumen quality compromised (Dr. Spasojevic)
- Length of egg storage

Hatchery Management: Incubation

- High temperature
- Low temperature
- High humidity
- Low humidity
- Turning
- Age of eggs
- Ventilation

Hatchery Management: Chick Handling

- Chick Holding Issues
- Temperature
- Humidity
- Time of holding

Hatchery Management: Chick Delivery Issues

- Delivery vs. shipping
- Temperature
- Humidity
- Ventilation

Shipping by Post or Freight Issues

- Hatch time
- Proper boxing
- Hydrating gel
- Temperature probes

Conclusion

- Share Information
- Establish relationships
- A high quality chick increases the chances of a high quality mature bird