



TROUBLESHOOTING COMMON ISSUES: BROILERS



AVIAGEN MANAGEMENT ESSENTIALS



Overview

Tables 1 and 2 highlight examples of mortality parameters possibly related to bird quality, health and welfare.

The tables also suggest potential investigative actions using the approach for troubleshooting the health issues outlined above.

Table 1: Troubleshooting common issues in the 0–7 day brooding phase.

Observe	Investigate	Likely Causes
Poor Chick Quality: <hr/> Increased dead on arrivals (DOA). <hr/> Chicks are inactive and slow to respond, lacking energy. <hr/> General chick appearance: <ul style="list-style-type: none"> • Unhealed navels. • Red hocks/beaks. • Dark, wrinkled legs. • Discolored or malodorous yolks or navels. <hr/>	Flock Status, Egg and Chick Handling and Transport, Sanitation: <hr/> Source flock health and hygiene status. <hr/> Egg handling, storage, and transport. <hr/> Hatchery sanitation, incubation, and management. <hr/> Chick processing, handling, and transport. <hr/>	<hr/> Inadequate diet of source flock. <hr/> Health and hygiene status of source flock, hatchery, and equipment. <hr/> Incorrect parameters for egg storage, RH, temperatures, and equipment management. <hr/> Incorrect moisture loss during incubation. <hr/> Incorrect incubation temperature. <hr/> Dehydration caused by excessive spread of hatch time or late removal of chicks. <hr/>
Small Chicks on Days 1–4 <hr/>	Feed, Light, Air, Water, and Space: <hr/> Crop fill in the first 2–4 hours post-chick placement. <hr/> Availability and accessibility to feed and water. <hr/> Bird comfort and welfare. <hr/> Low or poor uniformity of light intensity. <hr/> Brooding setup. <hr/>	<hr/> Less than 75–80% of chicks with adequate crop fill by the first 2–4 hours after placement. <hr/> Young donor flocks. <hr/> Weak chicks. <hr/> Equipment location and maintenance issues. <hr/> Inappropriate brooding temperature and environment. <hr/>
Runted and Stunted Chicks: <hr/> Small birds, as early as 4–7 days. <hr/>	Feed, Light, Litter, Air, Water, Space, Sanitation, and Biosecurity: <hr/> Flock source. <hr/> Hydration status of chicks. <hr/> Brooding conditions. <hr/> Feed quality and accessibility. <hr/> Downtime between flocks. <hr/> Disease challenge. <hr/>	<hr/> Chicks sourced from a wide range of donor flock ages. <hr/> Chicks unable to find or reach water. <hr/> Incorrect brooding temperatures. <hr/> Chicks unable to find feed or have poor feed quality. <hr/> Short downtimes between flocks (<10 days). <hr/> Inadequate cleaning and disinfection. <hr/> Disease. <hr/> Poor biosecurity and hygiene practices. <hr/>

Table 2: Troubleshooting common issues after 7 days of age.

Observe	Investigate	Likely Causes
Disease: Metabolic. Bacterial. Viral. Fungal. Protozoal. Parasitic. Toxins.	Feed, Light, Litter, Air, Water, Space, Sanitation, and Biosecurity: Broiler farm hygiene. Local disease challenge. Vaccination and disease prevention strategies. Feed quality and supply. Lighting and ventilation.	 Poor environmental conditions. Poor biosecurity. High disease challenge. Low disease protection. Inadequate or improper implementation of disease prevention. Poor feed quality. Poor bird access to feed. Excessive or insufficient ventilation.
Unusual Bird Behavior	Potential Sources: Temperature. Management of CO ₂ levels. Immunosuppressive disorders.	 Inadequate environmental management. Inadequate equipment. Inadequate bird comfort and welfare.
High Number of Birds DOA to the Processing Plant: High plant condemnation rate.	Feed, Light, Litter, Air, Water, Space, Sanitation, and Biosecurity: Flock records and data. Health status of the flock. History of the flock during the growing period (such as feed, water, or power outages). Potential equipment hazards on the farm. Bird handling by the catchers, handlers, and transporters. Experience and training level of individuals handling and transporting birds. Conditions during catching and transporting (such as weather and equipment).	 Health issues during growing period. Management of relevant historical events affecting bird health and welfare. Improper bird handling and hauling by crews. Harsh conditions (weather- or equipment-related) during handling, catching, or transport to the processing plant.

For additional problem solving actions, please see below.

Problem Solving

Issue	Possible Causes	Action
High early mortality (< 7 days).	Poor chick quality.	Check hatchery practice, egg handling, and hygiene.
	Incorrect brooding.	Reassess brooding practice.
	Disease.	Post mortems on dead chicks—take veterinary advice.
	Appetite.	Measure and achieve target crop fill levels. Check feed and water availability, and accessibility.
High mortality (post-7 days).	Metabolic diseases (ascites, sudden death syndrome).	Check ventilation rates. Check feed formulation. Avoid excessive early growth rates. Check hatchery ventilation.
	Infectious diseases.	Establish cause (post-mortem). Take veterinary advice on medication and vaccination.
	Leg problems.	Check water consumption. Check Ca, P, and Vitamin D levels in the diet; use lighting programs to increase bird activity.
Poor early growth and uniformity.	Nutrition.	Check starter ration — availability, nutritional and physical quality. Check water supply — availability and quality.
	Chick quality.	Investigate any source flock issues. Check hatchery procedures — egg hygiene, storage, incubation conditions, hatch time, transport time, and other environmental conditions.
	Environmental conditions.	Reassess brooding practice. Check temperature and humidity profiles. Check daylength. Check the uniformity of light intensity. Check air quality — CO ₂ , dust, and minimum ventilation rate.
	Appetite.	Check for poor stimulation of appetite (e.g., below-target crop fill for time post-placement).
	Downtime between flocks.	Ensure downtime between flocks is >10 days.
	Disease.	Seek veterinary advice.
Poor late growth and uniformity.	Low nutrient intake.	Check feed nutritional and physical quality and formulation. Check feed intake and accessibility. Avoid excessive early growth restriction and overly restrictive lighting schedules.
	Infectious disease.	Take veterinary advice on medication and vaccination.
	Environmental conditions.	Check ventilation rates. Check stocking density. Check house temperatures. Check water and feed availability. Check feeder and drinking space.



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