

Sl No	Parameter	Description of Parameter	Health Aspect/Measures	How to Measure	Threshold Values
1	Proper Health Status of a Live Broiler Flock	Monitoring the health status of a broiler flock is essential to prevent disease outbreaks, optimize growth, and	Behaviour & Activity Physical Condition Body Weight Mortality Rate Respiratory Health Droppings & Litter Laboratory Tests	Visual observation Check feathers, eyes, joints Weekly weighing Daily recording Listen for breathing sounds Check droppings and litter quality Blood/urine samples	Birds active and evenly spread No swelling, bright eyes, smooth feathers Matches growth curve <1% per week No wheezing or gasping Dry, firm droppings No major infections
2	Proper Brooding Temperature	Brooding temperature is critical for chick survival and growth during the first few weeks:	Day 1-3 days, 32-35 deg Cel Day 4- 7 days, 30-32 deg Cel Week 2 (8- 14 Days),28-30 deg Cel Week 3 (15 - 21 Days),26-28 deg Cel Week 4 (22 - 28 Days),24-26 deg Cel After Week 4 , 22-24 deg Cel	Digital or Mercury Thermometer – Placed at chick/bird level. Infrared (IR) Temperature Gun – Measures litter and bird surface temperature. Hygrometer – Measures temperature and humidity together. Thermocouple Sensors – For automatic monitoring in large farms.	32 deg Celcius 30 deg Celcius 28 deg Celcius 26 deg Celcius 24 deg Celcius 22 deg Celcius
3	Adequate Feeding Practices in Broiler Birds	Proper feeding is critical for broiler performance, maximizing growth, and improving feed efficiency. To ensure adequate feeding, use these key measurement and monitoring methods	Daily Feed Intake Feed Conversion Ratio (FCR) Feeder Space per Bird Feed Waste Percentage Growth Rate Monitoring Water-to-Feed Ratio Protein & Energy Content	Total feed consumed ÷ Total birds Feed intake ÷ Weight gain Feeder length ÷ Total birds (Feed wasted ÷ Feed offered) × 100 Weekly weight check Water intake ÷ Feed intake Feed sample analysis	Matches growth charts 1.5 - 1.8 10-12 cm per bird (finisher) < 5% Matches standard weight chart 1.6 - 2.0 Matches broiler requirements
4	Ensure Clean Fresh & Sufficient Water Supply	Use clean, cool, and fresh water at all times. Accurate water quality measurement ensures better broiler health, faster growth, and reduced mortality	pH Level Total Dissolved Solids (TDS) Bacteria Count Nitrate (NO ₃) Ammonia (NH ₃) Chlorine (if used)	Use a digital pH meter or pH test strips. Use a TDS meter to check minerals, salts, and impurities Collect water samples from multiple drinkers. Use bacterial test kits or send samples to a lab for testing E. coli, Salmonella, and Coliforms. Use nitrate test kits Use ammonia test strips Use a chlorine test kit	6.0 - 6.8 < 1000 ppm < 100 CFU/ml < 50 mg/L < 1 mg/L 2-5 ppm
5	Proper Ventilation	Proper ventilation in a broiler house is critical for bird health, feed efficiency, and growth. Good ventilation controls temperature, removes ammonia and CO ₂ , reduces humidity, and prevents respiratory diseases. Proper ventilation measurement ensures healthy broilers, fast growth, and reduced disease risk	Air Exchange Rate Ammonia (NH ₃) Levels Carbon Dioxide (CO ₂) Levels Air Speed (Natural Ventilation) Humidity Levels Temperature	Use a CO ₂ meter to track CO ₂ build-up Use an ammonia test kit or digital NH ₃ meter. Use a CO ₂ detector (digital sensor). Use an anemometer (wind speed meter) to check air movement at bird level Use a digital hygrometer or thermo-hygrometer Use a digital thermometer at different spots	1-2 m ³ /kg of bird weight per hour <10 ppm (Ideal), <25 ppm (Acceptable) <3,000 ppm 0.2 - 0.3 m/s (Chicks), 0.6 - 1.2 m/s (Growers/Finishers) 50-65% 32-35°C (Chicks), 22-24°C (Growers)
6	Proper Litter Management	Litter quality is critical in broiler farming because it affects bird health, ammonia control, footpad condition, and overall performance. Poor litter quality can lead to wet litter problems, ammonia build up, and increased disease risks. Measuring litter quality ensures better broiler health, reduces disease risks, and improves overall performance	Litter Moisture Content Litter Thickness Ammonia (NH ₃) Levels Litter Temperature Litter pH Litter Dryness Test	{Litter Moisture (%)} = {(Wet Weight (W1)) - (Dry Weight (W2))} / (Wet Weight (W1)) × 100 Use a ruler or measuring stick to check depth at multiple locations Use an ammonia test kit or digital NH ₃ meter Use a digital thermometer to measure temperature at different locations. Use pH test strips or a digital pH meter Pick up a handful of litter and squeeze it.	20-30% 5-10 cm (2-4 inches) <10 ppm (Ideal), <25 ppm (Acceptable) 28-32°C (82-90°F) for chicks 6.0 - 7.0 Should crumble in hand (not clump)
7	Proper Lighting	Maintaining proper light intensity and duration enhances growth performance, feed intake, and bird welfare while reducing stress and mortality	Brooding (0-7 Days),30-40 Lux Grower Stage (8 - 21 days),5-10 Lux Finisher Stage (22 to 42 days),2-5 Lux Before lifting for marketing ,0.5 - 1 Lux	Turn on the lux meter and set it to lux mode. Hold the meter at bird level (30-50 cm above the floor). Take readings at multiple locations (centre, near walls, near feeders/drinkers). Record light intensity in lux and compare with the optimal range.	30 Lux 5 Lux 2 Lux 0.5 Lux
8	Maintain Stock Density	Stocking density is a key factor in broiler production, affecting growth, health, feed efficiency, and mortality. Proper measurement helps prevent overcrowding, heat stress, and disease outbreaks	Correct Dosage (mg/kg) Medication Coverage Recovery Rate (%) Mortality Rate (%) Withdrawal Period Compliance Water Medication Dilution Medication Records	Drug amount ÷ Bird weight Compare water/feed intake before & during treatment (Recovered + Sick) × 100 (Dead + Total Birds) × 100 Days until slaughter - Last medication day Drug concentration (mg/ml) Track dosage, days, and withdrawal periods	Matches prescription No drop in intake >85% <3% after treatment Meets drug withdrawal period Properly mixed Complete logs kept
9	Proper Vaccination in Broiler Poultry Houses	Proper vaccination is critical for protecting broilers from diseases such as Newcastle, Infectious Bursal Disease(IBD), and Infectious Bronchitis. To ensure effective vaccination, follow these key measurement and monitoring steps	Doses Used vs. Birds Vaccinated Post-Vaccination Reaction Score Antibody Titre Test (ELISA/HI) Vaccine Coverage Sampling Cold Chain Monitoring	Check total doses given Score from 0-3 Blood test for immune response Random bird checks Check storage temp (2-8°C)	100% coverage 0-1 (Mild) ≥ Target Levels ≥ 95% coverage Consistent, no fluctuations
10	Proper Waste Management	Proper waste management is critical for maintaining bird health, reducing disease risk, and ensuring environmental sustainability. Here's how to measure and monitor waste management efficiency in a broiler house	Manure Output per Bird Litter Moisture (%) Ammonia Levels (ppm) Waste Removal Frequency Odour Measurement Fly Population Recycling Rate (%) Water Spillage Rate (%)	Birds × Avg. Manure (kg) (Wet weight - Dry weight) ÷ Wet weight × 100 Digital meter readings Track disposal per week Subjective scale (0-3) Count fly traps per week (Recycled Waste ÷ Total Waste) × 100 (Spilled Water ÷ Total Used) × 100	0.1-0.2 kg per bird/day 20-30% <10 ppm (ideal), <25 ppm (acceptable) Weekly turning, full removal per cycle ≤ 1 (No strong odour) Minimal fly presence ≥70% <5%