BREATHE-ON™

Puts Respiration back on Track

CONTROL RESPIRATORY ACIDOSIS AND IMPROVE GASEOUS EXCHANGE FOR NORMAL RESPIRATION



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A variety of respiratory problems can affect the chicks, growers and adult birds, these include the birds metabolism (High energy feeds) Gases like Carbon di Oxide and smoke (from wood/oil/gas burning stoves) Ammonia (produced by the birds) infection with Viruses, Bacteria, Fungus (Aspergillosis), use of Live Vaccines (Vaccine Reaction) Dust, Dandruff (produced by the birds), Endoparasites (Gape worms) Ectoparasites (Air Sac Mites) and stress due to hot weather, all leading to respiratory distress, its associated complications, break down of immunity, exposure to diseases resulting in morbidity, mortality and financial losses.

Consequences of the Respiratory problems due to any of the above listed reasons will lead to, Reduced Oxygen availability: Poor Respiratory health, this compromised respiratory function lowers blood oxygen levels, leading to discomfort, stress and reduced vitality. Disturbed Metabolism and Decreased Performance: Birds experiencing respiratory problems often show reduced vitality, decreased feed intake and digestion, and poor overall performance. Increased Morbidity and Mortality: In complicated cases of respiratory system increased morbidity and mortality will be seen.

Given below are some of the several complications of the Respiratory System causing respiratory distress, poor performance and increase in mortality.

During respiratory problems due to infections, like Coryza, CRD (E coli infection), Mycoplasma infection, IB (Infectious Bronchitis), ND (Ranikhet Disease), ILT, ammonia, dust and dandruff etc., resulting in irritation and inflammation, leading to symptoms like sneezing, coughing, wheezing followed by decrease in water intake and feed consumption, and reduced overall performance. Excess mucous is produced and accumulates in the nasal passages and trachea, causing distress due to difficult breathing, the respiratory system responds to the above mentioned stimuli, the mucous, dries and solidifies with time, damaging the tracheal lining, creating obstructions in the nasal passage, restricting the flow of oxygen (inwards) and expulsion of carbon dioxide, this retained carbon dioxide dissolves in the body fluids/water, producing Carbonic Acid, altering the pH and disturbing the birds body and blood homeostasis.

$$CO_2 + H_2O^+ \longleftrightarrow H_2CO_3 + \longleftrightarrow H^+ + HCO_3^-$$

Unlike the animals, the respiratory system of the birds is a complex system, consists of the 2 non expanding lungs embedded in the ribs and 9 air sacs, all connected, the air sacs provide a very high volume of air for use by the lungs on inspiration and expiration.

The Respiratory system of the birds is involved with the following: Intake of Oxygen (required for the body's metabolism), Removal of Carbon di oxide, Thermoregulation (when the body heat dissipation is required) and Vocalisation (when the bird need to communicate with one another).

The genetic potential of the birds for its fast growth, low FCR and the required standard body weight, does not allow its metabolic rate to slow down and match the excretion and accumulation of CO_2, the high energy rations used require more oxygen to produce the required energy for the birds, as a result more oxygen is consumed, used and metabolised and it produce more Co_2.

The H^+, CO_2 and HCO_3 are produced directly or indirectly by cellular metabolism, The end products of body's metabolism are Energy, H_2O (water) and CO_2 (Carbon dioxide).

$$Co_2 + H_2O^+ \longleftrightarrow H_2CO_3 + \longleftrightarrow H^+ + HCO_3^-$$

Respiratory Acidosis

This condition develops when CO_2 elimination is impaired which results in increased blood CO_2 and H_2CO_3 plasma levels. Any condition that reduces lung alveolar ventilation ultimately leads to respiratory acidosis.

Respiratory Alkalosis

This condition is induced by hyperventilation leading to increase loss of CO_2 via the lungs as during summer (Heat Stress Conditions).

For the prevention and control of both the Alkalosis and Acidosis, also look into the following simultaneously to avoid complications, that make the diagnosis and treatment difficult resulting in suffering for the birds and losses for the farmers.

Biosecurity : Implement strict hygiene practices to prevent spread of diseases.

Environmental Control : for chicks maintain proper brooder temperatures, avoid drafts, and keep water sources drip-free, constant temperature, air, lights, feed and water as per the required standards.

Stress Reduction: Minimize stress by avoiding overcrowding, rough handling, and sudden changes in feed, workers and handlers should minimize disturbances.

After considering the above facts, we **B.S. Group** are here by introducing our product **BREATHE-ON™** to improve the functional activities of the Respiratory system.

COMPOSITION:

Each 5 ml contains

Ascorbic acid	:	10.0 mg
Ammonium chloride	:	100 mg
Sodium citrate	:	7.5 mg

Amino nitrogen in fortified base.

USES : To enhance the normal level of metabolism And the response to antibiotic treatment in CRD, Coryza and Respiratory Distress.

DOSAGE : 1-2 ML per litre of water for 4-5 days Along with antibiotic. Continue BREATHE-ON™ For 3 more days without using antibiotics for better result.

PRESENTATION : 1 LITRE, 5 LITRE and 25 LITRE.

Manufactured by:

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