

Dear Reader,

The detrimental effects of ammonia in poultry production have been known for the years. Use of 'Liiteron' –The litter conditioner has been found very effective to control ammonia. Liiteron is a product of extensive research for the several years & successfully tried in poultry farms, let us have a review.....

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Liiteron

October 2012

The litter conditioner

Good poultry bedding is a generator of profits. Poultry bedding is the most neglected area in poultry farming. Poultry bedding can be a source of micro-organisms such as *E.coli*, *Salmonella*, fungi (molds), endotoxins etc.

Several studies reported that 1000 layers can produce 30 tonnes of deep litter in a year. Whereas the same number of broilers produce 2.5 tonnes in a life cycle i.e. 6-8 weeks. In the litter ammonia is formed by microbial decomposition of nitrogenous compounds. Ammonia is a colourless, irritant, alkaline & highly toxic gas to animal cells.

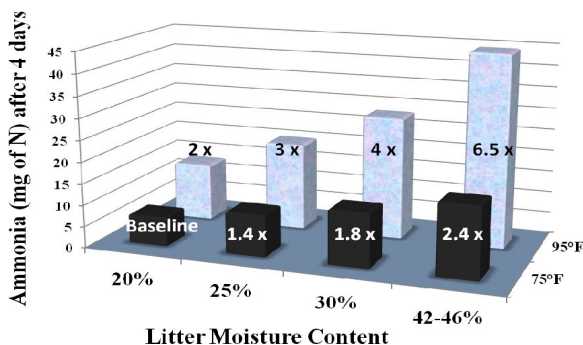
The climate in poultry houses influences the wellbeing and health of birds.

Air Pollutant Concentration in Poultry house:

Bacteria	1.7×10^4 to 2.2×10^5 cfu/m ³
Fungi	9.8×10^3 to 8.5×10^4 cfu/m ³
Dust	1.8 to 4.8 mg/m ³
Ammonia	4 to 27.47 ppm

Ammonia gas is lighter, water soluble and can thus be absorbed in floating dust particles. Bird inhale dust particles containing ammonia & other pollutants which allows infectious agents to become established & damages the bird's respiratory system. Birds exposed to ammonia are more susceptible to CRD, Coryza, Infectious bronchitis, Colisepticaemia and other diseases.

Ammonia Generation from Broiler Litter



Higher the Moisture, Temperature & pH the higher the ammonia generation, which causes following detrimental effects in poultry birds:

- >10ppm will damage lung surface
- >20ppm will increase susceptibility to respiratory disease
- >50ppm will reduce growth rate
- recommended upper limit 10ppm.

Ammonia emissions from birds at different ages:

Age (Day)	Range of ammonia emission (Mg/bird/day)
0-10	0-10
15-30	10-97
30-42	32-171
> 43	71-234

Ammonia reduces the capability of hemoglobin in animal blood capturing oxygen.

In birds every 10ppm increase in ammonia levels:

- Layers lose 1.5eggs per bird per year
- Broilers lose 15g of body wt. per broiler

The higher the ammonia- The higher the loss
Control ammonia- Improve your profits

DO NOT LET AMMONIA AFFECT THE HEALTH & PERFORMANCE OF YOUR STOCK

Liiteron is effective to control ammonia formation. Liiteron prevents release of ammonia gas from ammonium by reducing litter pH. Liiteron reduces bacterial load in the litter by reducing bacterial activity. Liiteron maintains more nitrogen in the form of ammonium to convert into safe fertilizer as ammonium nitrate.

Benefits:

By eliminating ammonia, Liiteron prevents respiratory diseases & vaccination failures in the farm.

Savings on litter costs: Liiteron treated litter is highly hygienic & can be re-used successfully, poultry farmers can save the money for not purchasing the new litter.

Improved weight gain: Research shows that Liiteron reduces microbial load in litter & improves weight gain.



Let your birds Step on
Litter + Liiteron

Love birds..Love Liiteron...