



Vision and Mission

To be the leader in what we offer to the community. We are committed to lab to market execution. Serving the society through high end, segment creation blue ocean material offering in the large agriculture arena including poultry sector.

Features

- Nanomaterial
- *E.coli* killer
- Poultry Disinfectant
- Colibacillosis
- Growth Promoter
- Even Size
- Greater immunity
- FCR
- Healthy Birds

Excellent prevention
against
E.coli and other
bacteriological
problems

FarmHelper CLEAR

Silver nanomaterial based poultry water disinfectant

Composition :

Silver nanomaterial: 1000 ppm

Hydrogen Peroxide : 50 % (Assay 48-50% by KMnO_4 titration)

Product features

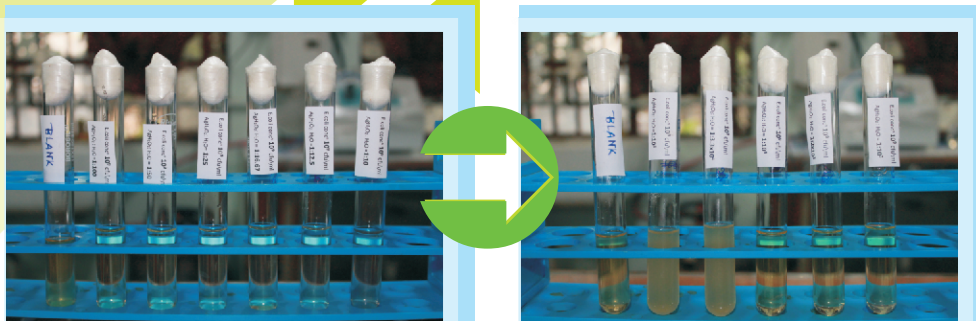
- New generation silver nanomaterial based water disinfectant for poultry.
- Advanced alternative technology.
- Double oxidation technology.
- Safe for consumption -Very low hazard quotient (0.34) which is considered non-toxic on the poultry, and the poultry is fit for human consumption (Study published in high IF International journal).
- Smaller nanomaterial (average 15nm) with high dispersity in poultry farm water having high TDS (>600mg/L), TOC (>220mg/L) and NOM (>380mg/L) (Study published in high IF international journal).
- Highly stable preparation.
- Less prone to develop resistance.

Benefits

- Prevents Colibacillosis and kills waterborne pathogen like *Escherichia Coli* (*E. coli*), Salmonella etc.
- Saves birds from primary *Escherichia Coli* (*E. coli*) related mortality
- Reduces the detrimental respiratory stress caused by infections with *Mycoplasma gallisepticum* or viral agents such as Infectious bronchitis virus (IBV) and Newcastle disease virus (NDV), those generally followed by Colibacillosis



Tested Efficiency of the product:



Isolated Coliforms
on EMB AGAR

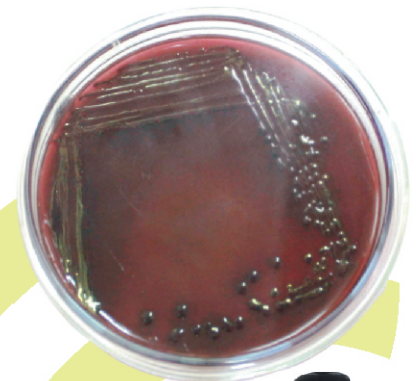


Fig: Dose Optimization of FarmHelper Clear against pathogenic *E.coli* strain

Recommended Dosage:

- Daily through drinking. water: 1mL/15-30 Liter depending on pathogenic load
- Disinfection of farm houses using power sprayer :
 - In presence of bird/animal: 4 mL/Liter of water.
 - In absence of bird/animal: 10 mL/Liter of water.
- Disinfection of farm houses by thermal fogger, storage tank, pipeline disinfection: 10 ml/L
- Disinfection of utensil, incubator, vehicles, hatching eggs, equipments, pre-cleaned surface: 4-10 mL/Liter of water.



FarmHelper CLEAR

Our Research In Renowned Journals

SpringerLink

Original Article | Published: 05 January 2019

Assessment of the role of silver nanoparticles in reducing poultry mortality, risk and economic benefits

Indrajeet Kumar & Jayanta Bhattacharya

Applied Nanoscience 9: 1293–1307 (2019) | [Cite this article](#)

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Environmental Nanotechnology, Monitoring & Management

Volume 14, December 2020, 100968

Dispersion, availability, and antimicrobial activity of silver nanoparticles during application to drinking water of the poultry

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SpringerLink

Original Article | Published: 05 February 2020

Growth, serum biochemical, and histopathological responses of broilers administered with silver nanoparticles as a drinking water disinfectant

Indrajeet Kumar, Jayanta Bhattacharya, Bidus Kanti Das, Pooja Lahiri

3: 830603 | 10: Article number: 94 (2020) | [Cite this article](#)

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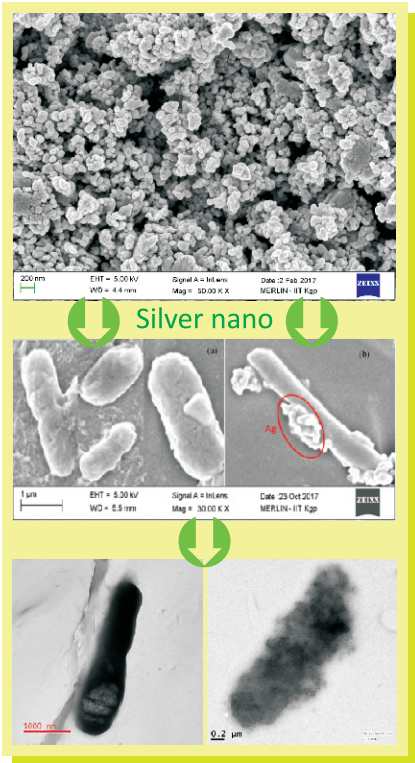
Mode of Action

- Singlet oxygen and Ag nano attacks Cell membrane.
- Destabilizes Intracellular Protein Channels - causing cell membrane rupture.
- Releases Mitochondrial Proteins.
- Ag acts as DNA intercalating agent, interferes in microbial DNA replication: reduces the chance of resistance development
- Destabilizes ribosome
- Causes cellular toxicity and ROS generation – oxidizes lipids and proteins.

Economic Benefits:

- Our multiple field trials and tested reports show that FarmHelper Clear is more cost effective than any other available in the market.
- To treat 1000 L drinking water it costs Rs. 40.00-60.00 (USD 0.75) only (to get the best results related *E.coli* related mortality)*.
- Saves Rs. 0.5-1.90 per bird much better than current practices**.
- Reduces antibiotic cost significantly.
- Very convenient to apply.
- Remains effective in every use.
- Low investment with huge benefit.

* and ** Revealed by our internal field trial



FOR MORE DETAILS



Presentation

800 ml, 4L and 25L

Precautions:

- Keep out of reach of children.
- Avoid direct contact with eyes & skin.
- In case of contact with eyes, rinse immediately with plenty of water & seek medical advice.
- Keep in dark and cool place. May evaporate if not kept in cool and dark places