



# VACCINE STABILIZER

FINRAY BIOTECH



## VACCINATION- a mandate to protect birds & farm economy

- A large variety of infectious organisms negatively affects the health, well-being, and productivity of poultry.
- To fight these infectious organisms, it is common for the poultry farmers to inject, spray, provide in drinking water or otherwise administer vaccines to such livestock.
- Commonly, these vaccines are attenuated or avirulent live infections strains of the viral or bacterial antigens. When the vaccines are kept viable, they confer increased disease resistance to the birds and improve the bird's health and productivity.





## Mass Vaccination- the way to save labour and to avoid stress

- In commercial poultry farms to vaccinate large number of birds at a time cope farmers do follow mass via spray and drinking water over individual inoculation by injection.
- This mass administration of vaccine by aerosol spray or drinking water benefits those producing the animals by reducing labor and eliminating the injection site injuries and broken needle residue that threatens the quality and safety of meat products.
- Individual vaccine causes handling stress- ultimately may impact the performance
  
- *But drinking water and aerosol vaccination always a challenge as water quality may affect potency and can reduce Effective Infective Dose( EID) per ml*





## Mass vaccination- few basic guidelines

- Vaccine virus – live but attenuated. Hence needs maintaining cold chain still it is administered to the birds
- Live virus are sensitive to disinfectants & antibiotics. Hence water for administration should be free from disinfectants like oxidizing agents, metal ions, antibiotics etc.
- The water pH should be within the range of biological pH. Too high and low pH affects EID per ml
- Normally, the prior art stabilizers are incorporated with the vaccine in the original container and stabilize the vaccine throughout manufacturing, storage and warming. But potency is significantly lost post dilution due to interaction of vaccine virus with several factors present in drinking & spraying water





## Important Recommendation

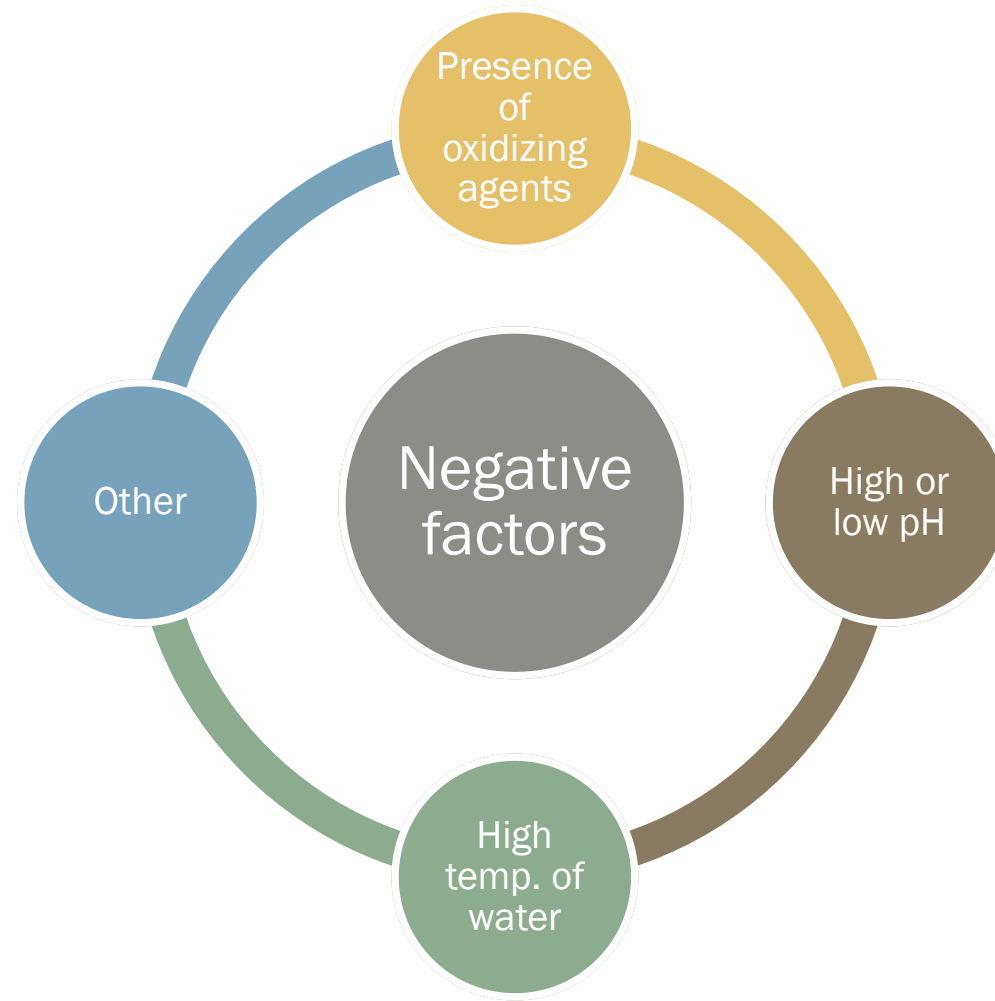
- Vaccine manufactures preferably recommend to use deionized/ distilled water for diluting before drinking water or spray vaccination- which is quite impossible/ impractical in commercial farms
- Recommend large quantities of skimmed milk powder to aid in reducing free chlorine in the water prior mixing the vaccines
- **But-**
  - *Large volume of milk powder is required to effectively deactivate the chlorine*
  - *In cold water if the milk powder is not dissolved properly can cause clogging of nipples of the drinking water system as well as nozzle of the sprayer*
- To avoid the hassles of usage of DM water of milk powder, some novel concept could be in practice which can offer the farmers to use normal drinking water without impact on potency of vaccine virus





## Novel Concept- towards mass vaccination

- Proprietary preparation which reduces the negative quality of water that limit life of the vaccine- thus allow the farmers to use farm water as functional delivery vehicle for the vaccines and ultimately offer animals greater protection





# VISIVAC

## Novel Vaccine Stabilizer with Immunomodulation power

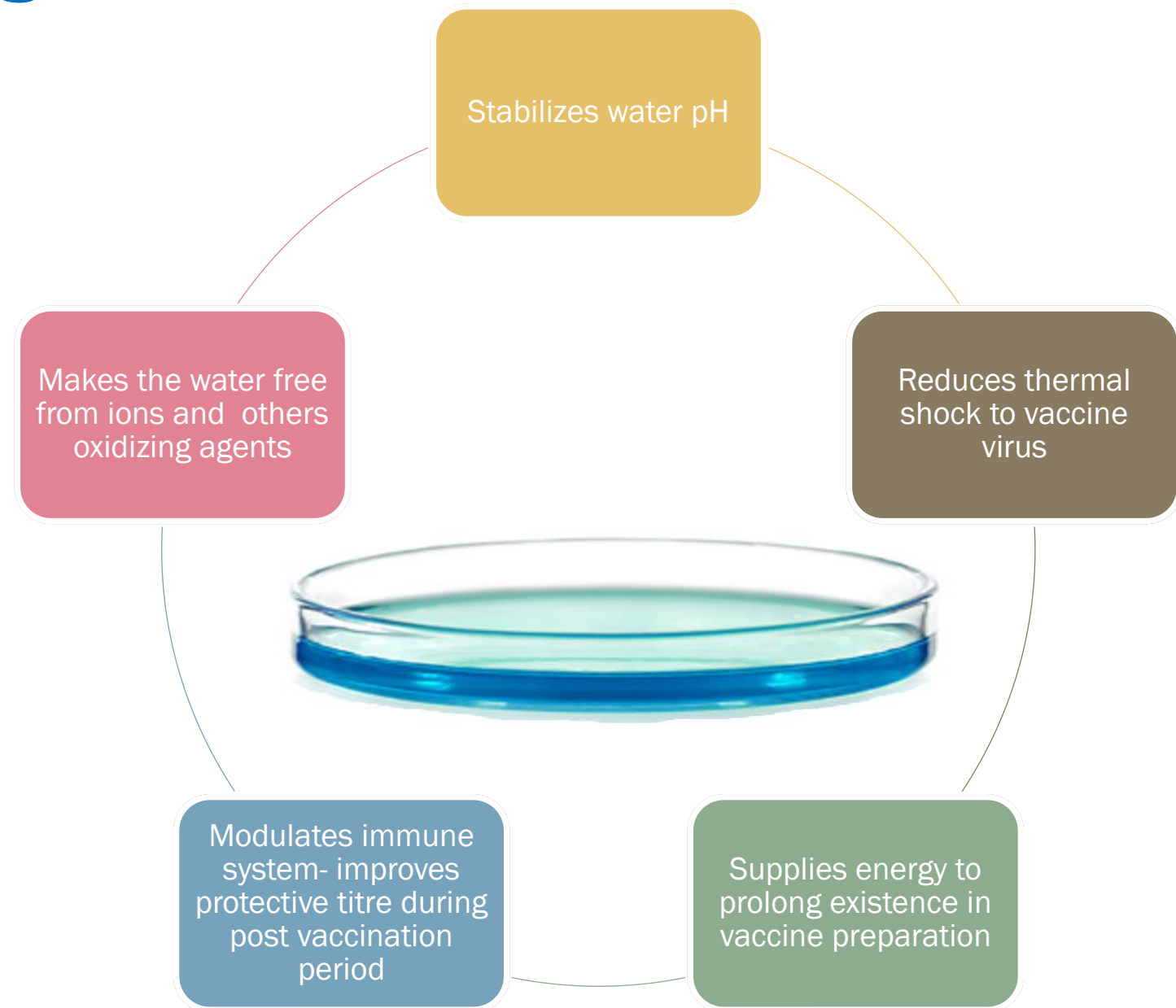
- Reduces the effects of oxidizing agents present in drinking water
- Stabilizes the pH of drinking water within biological pH range ( 6 to 7)
- Reduces the thermal shock to virus and keeps the EID per ml protected for longer period in drinking water
- Offers energy to the virus while in water preparation
- Modulates the immune response and aids to increase protective titre during post vaccination period
- Acts a marker to identify the vaccinated birds as it act as colourant





# VISIVAC

## ■ Major USPs







# VISIVAC

- According to number, age of the birds and seasonality determine the volume of water for vaccination
- At least 30 % of days requirement to be used for vaccine administration
- Add ice prepared from good quality water and bring the water temperature below 25°C
- Add 30 gm of Maxivac in 100 litre of water and stir it properly. Wait for 10 minutes
- As per recommendation of vaccine manufacturer add the vaccine in water.
- Start vaccination

**Presentation:** 30 gm sachet





## Few Recommendation

- Birds should be moderately thirsty before vaccination
- 30% of daily water requirement could offered with vaccine
- Vaccination should in the morning or late evening
- Strictly follow the shipping, storage and usage recommendation of vaccination manufacturer. It will improve the efficacy of vaccine
- Maintain the vaccination record to avoid the missing the date of booster vaccines

