Virsin 361

Technical Datasheet

Virsin 361 is an inactivated vaccine comprising two serovars of *Salmonella enterica* (Enteritidis, serogroup O:9; Typhimurium, serogroup O:4) and adjuvanted with mineral oil.

Food poisoning in humans caused by infection with *Salmonella enterica* remains a significant global public health concern. The majority of human infections caused by *Salmonella enterica* are associated with the consumption of contaminated eggs and poultry meat. *Salmonella enterica* serovar Enteritidis is considered to be zoonotic agent commonly found in domestic poultry and has been responsible for many outbreaks of human salmonellosis through consumption of contaminated food, especially those prepared with raw eggs or other poultry products.
Vaccination of layer and broiler breeder hens could contribute significantly to reducing Salmonella numbers in the table egg industry and broiler processing plants.
The vaccine induces marked systemic antibody response against all vaccine antigens, significant reductions in intestinal tract colonisation and internal organ invasion.
In commercial layers, Virsin 361 induce antibodies in egg yolk that reduce the risk of serovar Enteritidis / Typhimurium – induced food poisoning. Administration of an inactivated *S. enterica* serovar Enteritidis / Typhimurium vaccine to domestic fowl reduced the number of serovar Enteritidis / Typhimurium bacteria isolated from liquid egg samples and the isolation frequency.

Use of the Virsin 361 vaccine in multi-age flocks is not an ultimate intervention for reduction of *Salmonella* Enteritidis and Typhimurium because of the complexities involved in achieving control, such as the efficacy of cleaning of sheds, the lack of resting periods between batches and the possible carry over of contamination from existing flocks. Hence implementation of more than one or several interventions strategies is essential.
Virsin 361 can decrease the presence of Salmonella Enteritidis and Salmonella typhimurium in a poultry flock and in the eggs as well. Nevertheless, the vaccination program must be associated with general hygiene and disinfection practices in poultry husbandry.
The seroconversion and protection against a pathogenic challenge was experimentally proven in laboratory trials.

Recommended Vaccination Program for commercial layers and breeder hens:
Program 1: Vaccinate between 12 and 16 weeks of age, revaccinate 3-4 weeks later.
Program 2: Two live (1-day-old & 5-7 weeks old) followed by one inactivated at 12-16 weeks old (In case of high challenge, revaccinate 3 weeks later).