AviPro® 109 SE4

Convincing Advantages:

- Control of *Salmonella* Enteritidis in layers and breeders
- Reduce shedding and spreading
- High immunogenicity
- Available in 0.5 ml and a concentrated dose, 0.25 ml
- Great contribution in the production of safe poultry products

Lohmann Animal Health

Reduce *Salmonella* Colonization

Salmonella are ubiquitous microorganisms which are commonly found in the digestive tracts of a broad range of animals, including mammals, birds and insects. *Salmonella* multiply by binary fission and can survive and multiply in the environment, outside the host. This bacterial growth, if aided by ideal temperature conditions may take alarming proportions, offering such high bacterial counts that could cause severe symptoms in infected hosts. Human illnesses caused by *Salmonella* are usually associated with ingesting contaminated food or drink. In many cases *Salmonella*-contaminated meat or eggs are the source of infection.

Salmonella enterica enterica serovar Enteritidis, commonly known as *Salmonella* Enteritidis (SE), although rarely seen to cause disease in chickens, is one of the most often reported serotypes associated with human *salmonellosis*. Next to a *Salmonella* managed environment, vaccination of the chickens plays a key role in prevention. Vaccination is one of the many components of a 'shield' which must be built around the susceptible bird in order to prevent its infection. The advantages of vaccination are that it induces a profound protection of the birds against *Salmonella* infections, and shedding from infected birds is dramatically reduced. Additionally, vaccines leave no residues in the environment, they do not promote any new antibiotic resistances and they also provide a consistent presentation of antigen to the immune system.

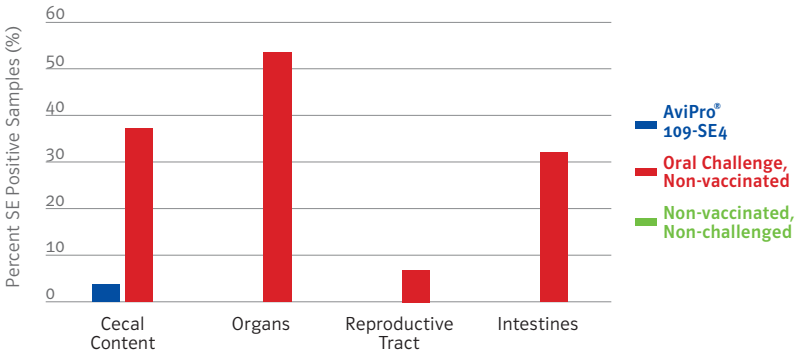
Vaccination with AviPro® 109 SE4 has proven to greatly reduce SE colonization in the ceca, internal organs and intestines therefore greatly reducing the risk of shedding and spreading.

AviPro® 109 SE4

- Healthy chickens
- Safety for the poultry farmer
- Protection for consumers

Study

Ninety (90) female specific pathogen free (SPF) leghorns, 12 weeks of age, were separated in two groups of 30 birds (groups 1 & 2), one group of 20 birds (group 3) and one group of 10 birds (group 4). At 12 and 16 weeks of age, birds in groups 1 and 2 were vaccinated subcutaneously in the neck with 0.5 ml of AviPro® 109 SE4. At 20 weeks of age, birds in groups 1, 2 and 3 were challenged orally with 1.45 x 107 CFU of a virulent *Salmonella* Enteritidis strain. Group 4 remained as unvaccinated, unchallenged controls. At 7 days post-challenge, all birds were sacrificed. Tissues were obtained from the ovary, upper oviduct, spleen, kidney, liver, duodenum, jejunum, ileum and any organ displaying visible lesions and analyzed bacteriologically for the presence of the challenge strain. The Chi-square test analysis of these data revealed a significant ($P<0.05$) difference in internal organ recovery of SE between birds vaccinated with AviPro® 109 SE4 and non-vaccinated birds after challenge. A significant difference ($P<0.05$) was also found between vaccinated and non-vaccinated birds in recovery of SE from the cecum and from the intestinal wall. This shows that vaccination with AviPro® 109 SE4 reduced internal organ and intestinal wall infection and significantly reduced SE colonization of the ceca in orally challenged birds. (Source: Lohmann Animal Health International, data on file).



Prevention first.

AviPro® 109 SE4 – Inactivated vaccine recommended for the vaccination of chickens as an aid in the reduction of *Salmonella* Enteritidis colonization of the internal organs, including the reproductive tract. Vaccinate chickens between 12 and 16 weeks of age. Revaccinate 4 weeks later. Revaccinate during molt. Do not vaccinate within 3 weeks of onset of egg production.

Lohmann Animal Health

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