

# Nobilis® SG 9R

The proven Salmonella vaccine for layers and breeders

*Creating peace of mind.*





## **Nobilis® SG 9R, the safe alternative that gives you peace of mind**

Preventative vaccination against *Salmonella gallinarum* (fowl Typhoid) has gained wide acceptance in areas where the disease is endemic. Live vaccines are considered to be superior to inactivated vaccines and the 9R strain on *S. gallinarum* has been shown to be efficacious in endemic situations. Emergency vaccination in an early stage of infection may also have a favourable effect.

Live *Salmonella* vaccines induce a strong cell-mediated immune response. This plays an important role in helping the bird's immune system respond to intracellular bacteria like *Salmonella*. Vaccination with a live *Salmonella* vaccine prevents horizontal and vertical transmission of the bacteria.<sup>(1)</sup>

Nobilis® SG 9R is a live vaccine against infections with *Salmonella gallinarum* (fowl Typhoid) in laying-type chickens and broiler breeders. The freeze-dried vaccine contains viable organisms of the rough strain 9R, a rough mutant of *Salmonella gallinarum*. The vaccine contains  $2 \times 10^7$  CFU per bird dose.

Nobilis® SG 9R is indicated for the active immunisation of layer-type chickens and broiler breeders against *S.gallinarum* (Fowl Typhoid) infections.







## **Nobilis® SG 9R, the safe alternative<sup>(2)</sup>**

SG 9R has the longest safety record of any poultry Salmonella vaccine. The strain has been shown to be stable after 50 passages in embryonated eggs and five passages in susceptible birds with no reversion to virulence. Unlike other live Salmonella vaccines, there is no horizontal transmission between birds.

Brown chickens, being considered the breed most sensitive to *S.gallinarum*, do not exhibit vaccine induced mortality or clinical disease after vaccination.

No undesirable effects are evoked by an overdose (10 times the normal maximum dose) or by repeated administration.

Subcutaneous administration gives no local reaction at site of injection.

No systemic reactions and no indications that the vaccine affects the immunological functions.

Application at a young age will not negatively influence the development of the reproductive system, hence, egg production.

The vaccine strain does not spread to in-contact control chickens.

The vaccine strain does not revert to virulence as shown in back-passage studies involving 5 passages in susceptible Hyline-brown chickens and 50 passages in susceptible embryonated eggs.

A withdrawal period is not proposed.

### **Efficacy – the assurance of protection**

Single vaccination with one minimum dose gave reasonable protection up to 12 weeks.

Repeated vaccination at 6 and 18 weeks of age fully protects against challenge with *S.gallinarum* 4 weeks later.

Field case<sup>(3)</sup>

**Nobilis® SG 9R proves to be safe and effective under conditions of severe field challenge in white and brown layers.**

An integration in Northern Germany of over 3.5 million brown and white commercial layers suffered a severe outbreak of Fowl Typhoid. Despite intensive disinfection and the use of an inactivated autogenous vaccine a second outbreak occurred. Antibiotics proved to have no significant effect on the control of the disease.

It was decided to vaccinate future placements with Nobilis® SG 9R vaccine. Efficacy of emergency vaccination at an early stage of infection was investigated in flocks suffering from clinical disease shortly after the onset of lay.

Furthermore a concurrent trial was performed on two farms with a history of Fowl Typhoid outbreaks. In these flocks the protective capacity of the vaccine against field infection was evaluated by vaccinating layers on day of transfer to the laying farm.

In terms of safety no local or general reactions to vaccination were encountered, the vaccine strain was demonstrated not to spread to sentinel birds.

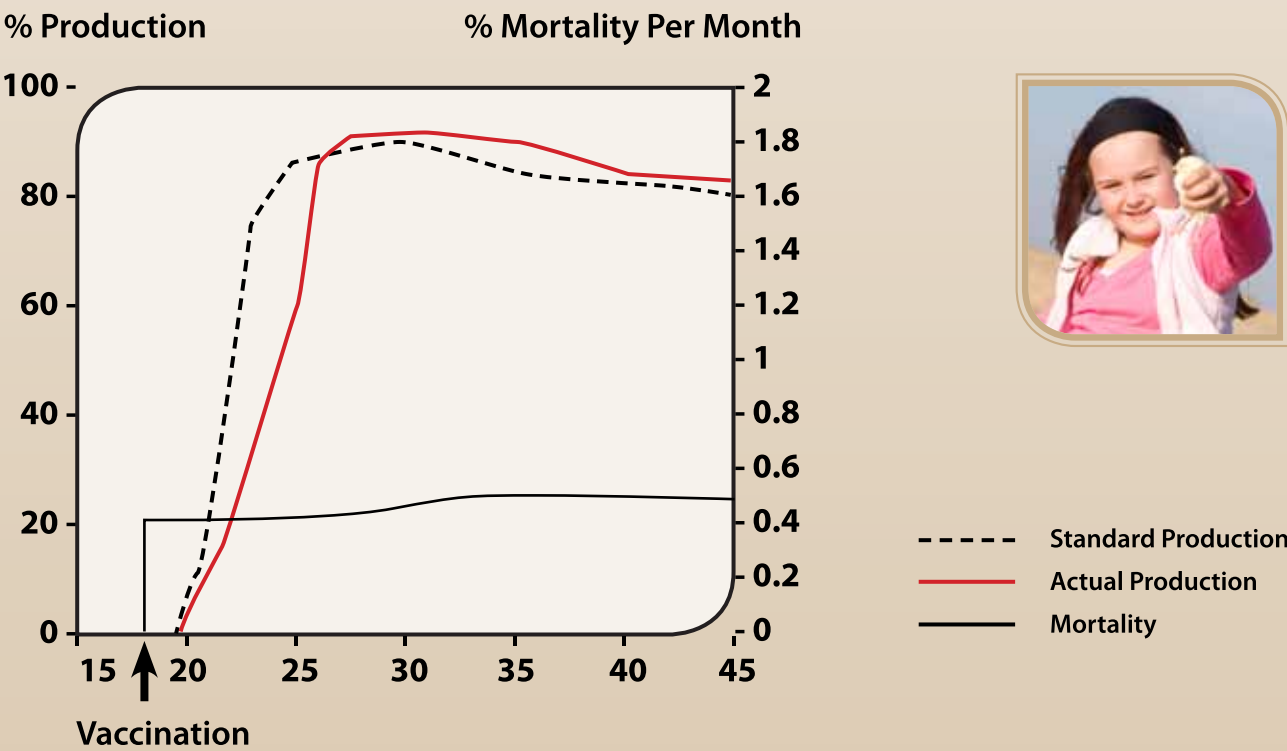
**Results**

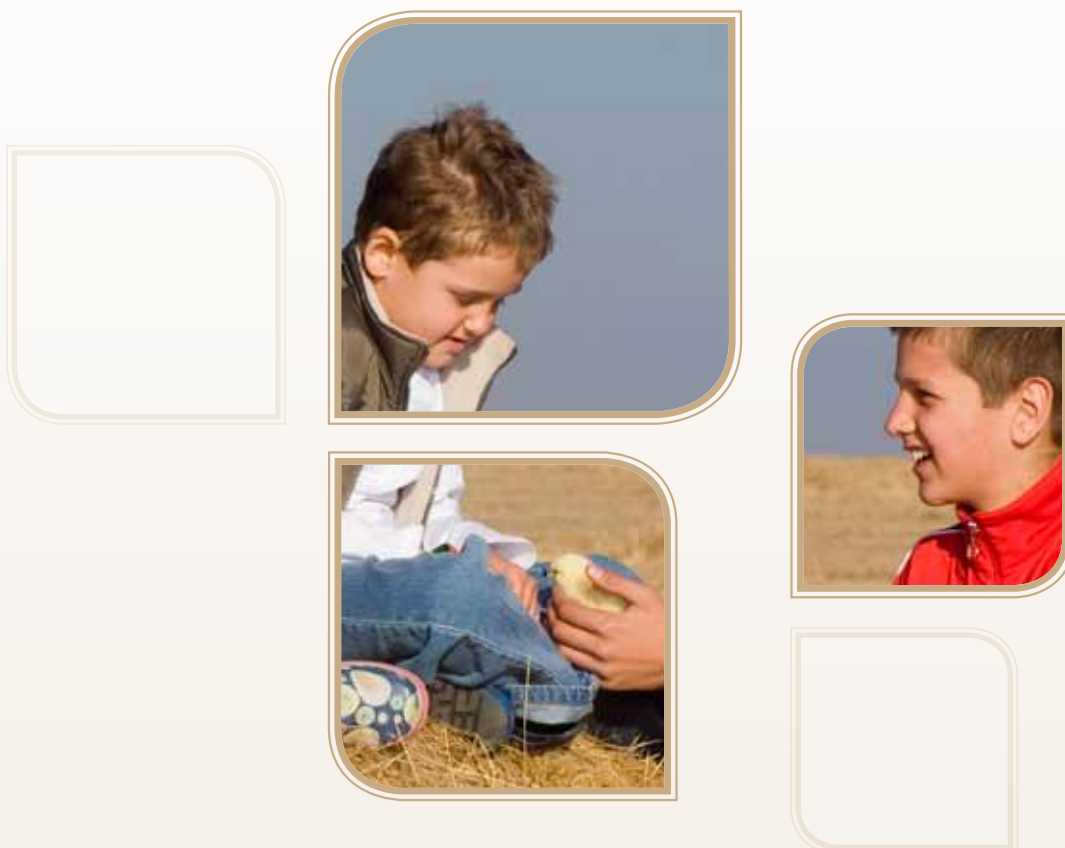
The results indicated that vaccination was effective in terms of prevention of mortality, reduction of spread of *S.gallinarum* field strain and protection of egg production capacity.

The bacteriological findings indicated that protection against infection with virulent *S.gallinarum* field strain is related to the persistence of the vaccine strain in the vaccinated birds. In accordance to the schedule advised in the leaflet, the results confirm earlier findings that revaccination after around 12 weeks is indicated under high infection pressure, as immunity is waning.

Together with implementation of an all-in-all-out practice, through disinfection of the sites and proper management, three out of four farms could even be sanitised from *S.gallinarum* field strain following vaccination of one round or two consecutive rounds respectively.

**Egg Production & Mortality**





## Nobilis® SG 9R Features and Benefits

Features	Benefits
<ul style="list-style-type: none"> <li>• Live vaccine</li> <li>• Induces effective protection against <i>S.gallinarum</i></li> <li>• No horizontal spread</li> <li>• No interference in agglutination test for <i>S.pullorum</i></li> <li>• Birds can be monitored serologically for <i>S.enteritidis</i> by GM-DAS blocking ELISA</li> <li>• Genetically stable strain</li> <li>• <i>S.gallinarum</i> is not a human pathogen</li> <li>• Proven Salmonella reduction in official large scale field trials</li> <li>• Relatively inexpensive</li> </ul>	<ul style="list-style-type: none"> <li>• Higher protection level than inactivated vaccines</li> <li>• Limit economical damage</li> <li>• No unwanted spreading to unvaccinated flocks</li> <li>• Does not interfere with <i>S.pullorum</i> monitoring programs</li> <li>• Does not interfere with <i>S.enteritidis</i> serological monitoring programs</li> <li>• No reversion to virulence</li> <li>• No human health risks related to the vaccine strain</li> <li>• Excellent reputation</li> <li>• Higher acceptability for the customer</li> </ul>

## Nobilis® SG 9R Suggested vaccination schedule

	Age
Primary vaccination	6 weeks
Revaccination	16 weeks
Subsequent vaccinations in areas of heavy infection pressure	At 12 weeks interval

### Administration

Administer 0.2ml of the reconstituted vaccine to each chicken by subcutaneous injection in the lower part of the neck.

### Presentation

**Nobilis® SG 9R** is available in vials containing 1000 doses of vaccine packaged in boxes of 10 vials.



For more information on Salmonella control in poultry, please visit [www.safe-poultry.com](http://www.safe-poultry.com)



Nobilis® SG 9R  
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### References

*Nobilis® SG 9R The proven Salmonella vaccine for layers.* Intervet International. The Netherlands. 2004.  
Registration file, Nobilis® SG 9R, Section VI, Reports on Safety and Efficacy. *Staying Alive.* Intervet International. The Netherlands. 2009.