

Facing *Salmonella* head on with Primun



Primun *Salmonella* E

- Duration of immunity*
- Protection**
- Diagnostic accuracy



*According to SPC/**Use in laying in authorised countries

FACING *SALMONELLA ENTERITIDIS* IN LAYERS WITH PRIMUN SE



Poultry meat and eggs are the most common sources of *Salmonella* infections (*Salmonellosis*) in humans. Salmonellosis is one of the most difficult diseases to control in poultry flocks. As most animal species can be infected with *Salmonella*, cross-infection is very common among birds. Moreover, birds can be infected with *Salmonella* without showing any signs of the disease.



Salmonella Enteritidis

can contaminate table eggs, either by an infected hen passing it to the egg before the shell forms (trans-ovarian) or by the bacteria entering the egg through the shell after it's laid. This can lead to human illness if eggs are consumed raw or undercooked.

PREVENTING

Salmonella Enteritidis in laying hens involves a multi-faceted approach including **biosecurity, vaccination, and good hygiene practices**. Key steps include preventing Salmonella from entering the farm, controlling its spread within the flock through measures like proper litter management and clean housing, and enhancing the birds' immune response mainly with live vaccines.

Since few years ago, live attenuated Salmonella vaccines were used in layers to protect against Salmonella Enteritidis during production. These vaccines were allowed to be used during rearing to provide them with immunity until 68 weeks of age (3 doses in drinking water). Layers are kept in production till 100 to 110 weeks of age, so there was a long gap in protection, 30 to 40 weeks because the vaccines were not allowed to be used during production to extend protection.

Nowadays, the **Primun Salmonella E** vaccine by Calier is available to provide protection throughout the production period.

It is the only live Salmonella vaccine registered for use during production with a withdrawal period of zero days.

Three vaccinations during the rearing period (on the first day and at 5–6 weeks and 13–15 weeks) provide immunity for up to 80 weeks, and a fourth dose at 55 to 60 weeks of age extends protection by a further 40 weeks.

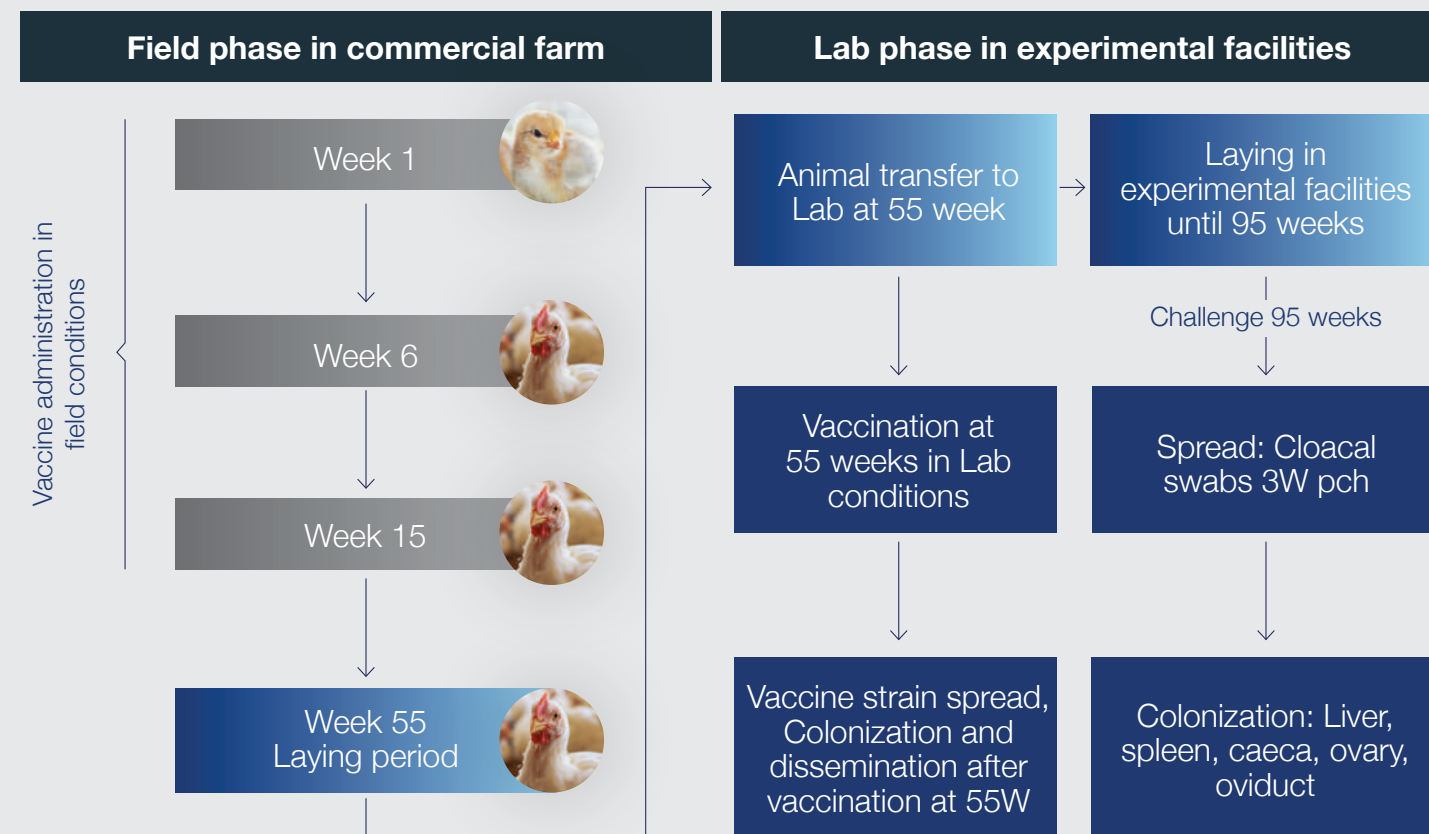
Therefore, layer farms can bridge the protection gap by administering a fourth dose of Primun Salmonella Vac E in drinking water.



Primun Salmonella E

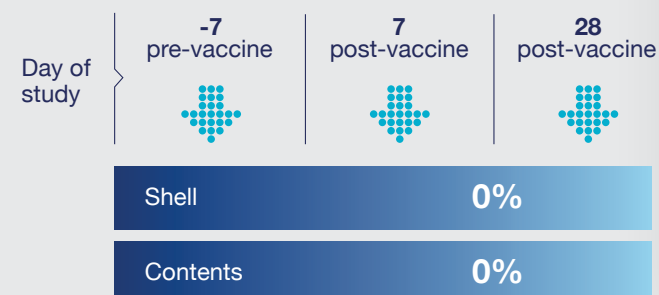
- Live vaccine against *Salmonella Enteritidis*
- Only vaccine authorised in production period (review SPC of each country)
- Prolonged protection 40 weeks after application during laying - 0 days withdraw period for the eggs

PROTECTION AT THE END OF THE PRODUCTION PERIOD

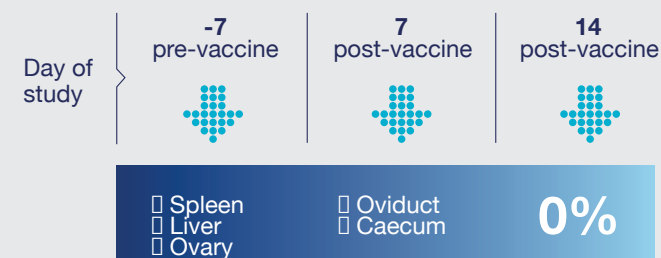


Primun Salmonella E has been shown to be completely safe for use during the egg production period, prolonging protection up to 40 weeks after application. In 55-week application tests in a group of hens with a previous schedule of 3 doses in rearing, it has been shown that the vaccine strain does not excrete in either eggs or cloacal swabs.

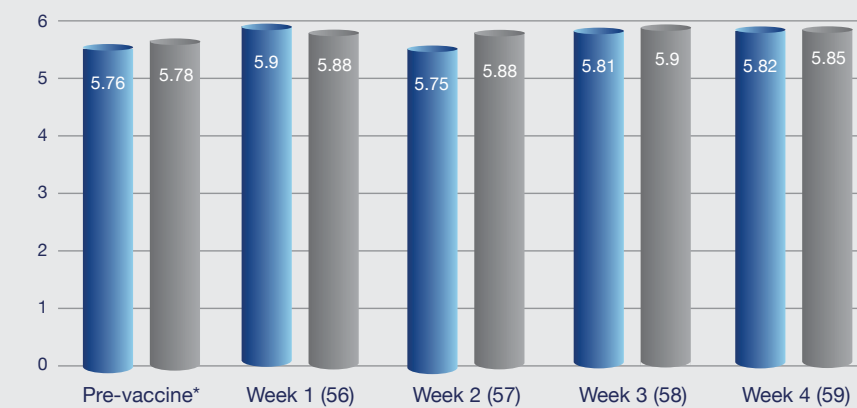
Presence of the vaccine strain in eggs (shell and contents)



Detection of the vaccine strain in internal organs



Average number of eggs in vaccinated birds



There were no significant differences between the two groups

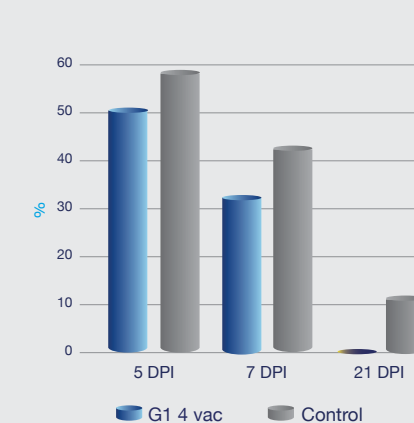
In the study, it was also shown that application of the dose during laying does not alter the production parameters in comparison with a control group

- Average eggs bird/week in birds vaccinated with a 4th dose during laying
- Average eggs bird/week in vaccinated hens in rearing (3 doses)

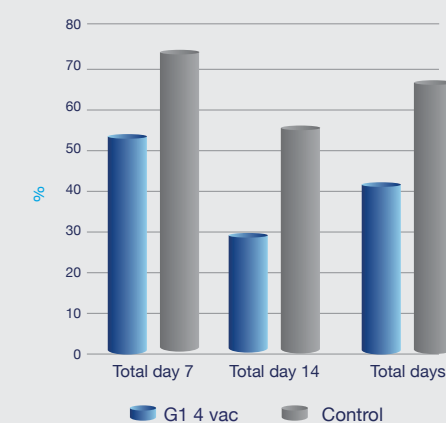
After a challenge at 95 weeks, a reduction in the shedding of the field strain was observed, as was a reduction in colonisation in birds vaccinated with

Primun Salmonella E
The following results were obtained:

Percentage of post-infection shedding



% of colonisation of the total of internal organs



The results show significant differences between G1 (3 vaccines during rearing + 1 in laying) and the control group

No negative effects



No presence on reproductive system



No presence in cloaca



No presence in eggs



Egg production was the same before and after the use of the 4th dose of the vaccine.



Primun SE
Safe for the layers
Safe for the consumer



Primun *Salmonella* ϵ
SALMONELLA-FREE LAYERS,
**SAFE EGGS FOR
THE CONSUMERS**