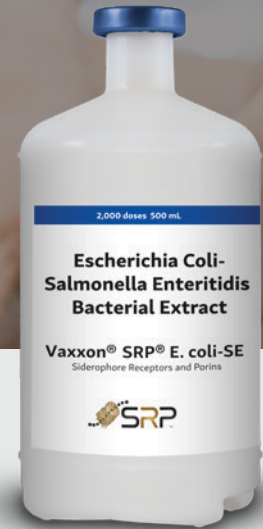


vaxxino[®]

Vaxxon[®] SRP[®] E. coli-SE

THE FIRST AND ONLY INACTIVATED *E. COLI* VACCINE



DECREASED INCIDENCE OF *E. COLI* PERITONITIS¹

DECREASED MORTALITY, INCREASED LIVABILITY RESULTS IN **MORE EGGS** PER HEN HOUSED

DEAD BIRDS DON'T LAY EGGS: Improve bird health and welfare, while maximizing genetic potential with *E. coli* and *Salmonella* protection using SRP technology.

REDUCED *E. COLI* AND *SALMONELLA*: Effective against mortality caused by *E. coli*.¹ Zero mortality was observed in vaccinated groups in our challenge studies. Effective against colonization of *E. coli* in the **reproductive tract**, internal organs and air sacs. Effective against SE colonization of the **reproductive tract**, internal organs and intestinal tract.¹

BROAD PROTECTION: By combining *E. coli* and *Salmonella* vaccines into one dose, you get 2X the protection for 1X the labor.

SAFETY FIRST: SRP vaccines are highly purified proteins, which often result in less flock setback and less tissue reaction than whole cell bacterins.

INNOVATIVE: First and only US-licensed combination *E. coli* & SE vaccine in the market. Uses siderophore receptor and porin (SRP) proteins as immunogens.

Proteins are good immunogens – stimulating both cell-mediated and humoral immune systems.

Induces good anamnestic response.

Focuses host immune response to bacterial SRP irrespective of serotype.

SRPs are highly conserved between strains of bacteria.

- Specificity of SRP antibodies does not depend on the serotype of the challenge strain
- SRP antibodies will attach to multiple serotypes²



EFFECTIVE AGAINST *E. COLI* CHALLENGE

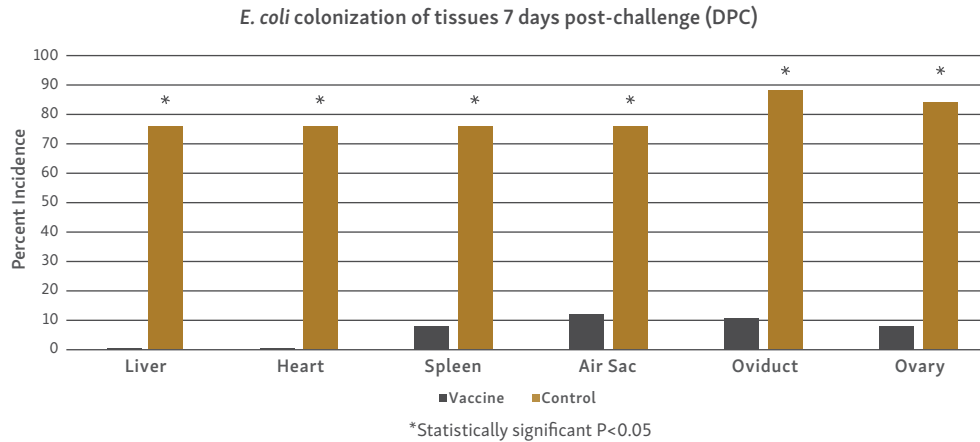
This product has been shown to be effective against mortality caused by *E. coli*¹

IMPROVED OVERALL LIVABILITY OF VACCINATED FLOCK MAY RESULT IN:

- More eggs per hen-housed
- Healthier birds, therefore better egg production
- Maximized genetic potential

THIS PRODUCT HAS BEEN SHOWN TO BE EFFECTIVE AGAINST COLONIZATION OF *E. COLI* IN THE REPRODUCTIVE TRACT, INTERNAL ORGANS AND AIR SACS:¹

- Reduced incidence of peritonitis, air sacculitis, colibacillosis
- Reduced potential for secondary bacterial infections after viral infections or other stressors



EFFECTIVE AGAINST *SALMONELLA* ENTERITIDIS (SE)

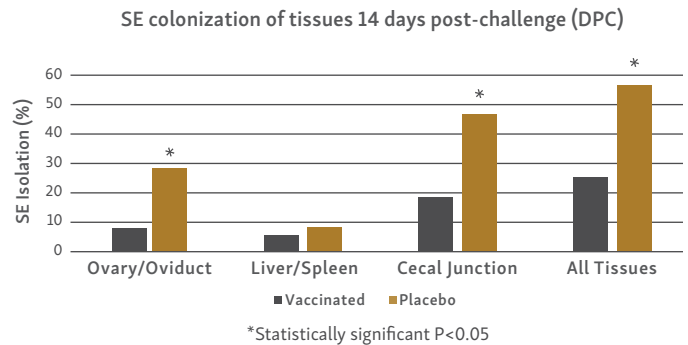
This product has been shown to be effective against SE colonization of the reproductive tract, internal organs, and intestinal tract¹

SALMONELLA SRP BENEFITS:

- Reduced probability of vertical transfer of SE to progeny
- Reduced potential for horizontal spread and environmental contamination

ANTIBODIES TO SE SRP HAVE BEEN OBSERVED TO LAST THROUGHOUT LAY PERIOD OF BROILER BREEDERS:³

- SE SRP antibodies were detected in broiler breeders up to 62 weeks of age
- SE SRP are passively transferred to progeny and detected until 14 days of age



REFERENCES:

1. productdata.aphis.usda.gov.
2. Data on file at Vaxxinova US.
3. Data on file. Study No. M2101. Vaxxinova US. May 2022.

