



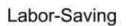
Oral Gel Administration for *Lawsonia* and *Salmonella* Vaccines Helps Producers Save Time and Labor

Gel Administration of Enterisol® Vaccines

Gel administration offers a convenient, fast, stress-free option to orally administer Enterisol® Ileitis and Enterisol Salmonella T/C®.









Stress-Free for Pigs & People



Management of the Med-Free Window



The Vaccines

- Enterisol Ileitis®: Oral, avirulent live vaccine against Lawsonia intracellularis.
 - · Over 20 years of success and over a billion pigs vaccinated worldwide, confers protection with a single oral dose.

- Enterisol Salmonella T/C®: Oral, avirulent live vaccine against Salmonella.
 - Only commercial vaccine to contain both Salmonella Typhimurium and Choleraesuis serotypes and to show protection against monophasic Salmonella.









The Gel

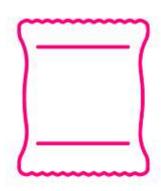
 Underline® Gel: contains color and taste to attract pigs, also neutralizes chlorine.







Three Basic Steps to Oral Vaccination by Gel





Prepare the gel



2

Mix in the vaccine





Vaccinate

by spraying the mixture on farrowing crate mats or a surface that allows pigs to consume the gel



Enterisol® Vaccine in Gel Applied to Farrowing Crate Mat





• Using the Doser backpack, possible to vaccinate 48 litters or approximately 576 pigs in three minutes.



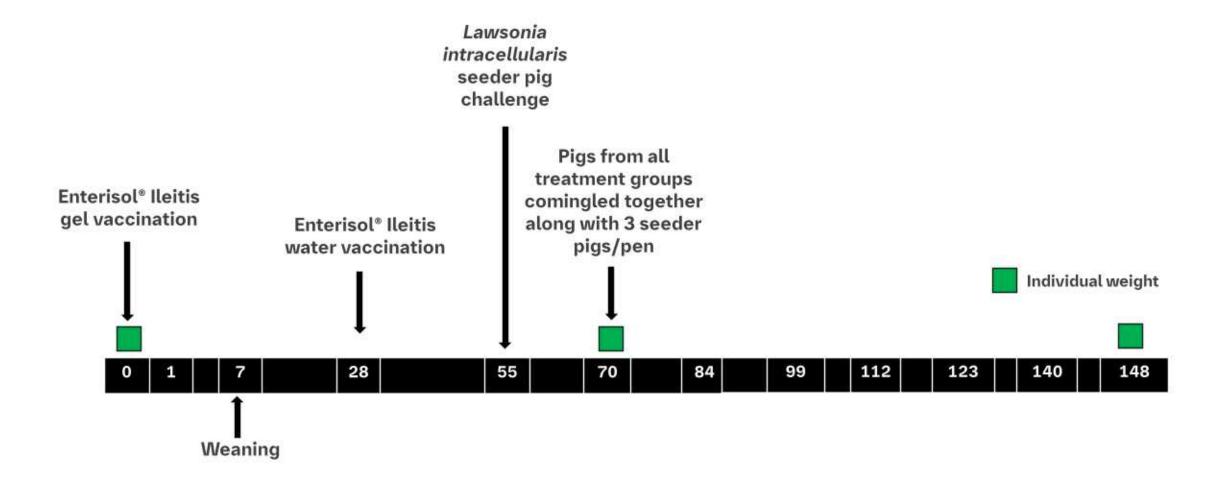
Lawsonia Challenge Trial

Treatment	Treatment Description	Pigs/Trt
1	Non-vaccinated, Challenged Controls	540
2	Enterisol® Ileitis FF via gel	540
3	Enterisol® Ileitis FF via water	540
4	Enterisol® Ileitis FF + Enterisol Salmonella T/C® via gel	540

 Objective: Compare the efficacy of oral administration of Enterisol® Ileitis by gel and drinking water as measured by average daily gain (ADG) and mortality in a field commercial barn with experimental Lawsonia challenge.



Study Timeline





Results - ADG

2	Treatment				
-	Non-vaccinated, Lawsonia challenge control	Enterisol® Ileitis FF <u>gel</u>	Enterisol® Ileitis FF <u>water</u>	Enterisol® lleitis FF + Enterisol Salmonella T/C® gel	P-value
ADG (commingling to final), lbs/day	1.82 ± 0.02 ^b	2.05 ± 0.02a	2.02 ± 0.02a	2.03 ± 0.02°	<0.0001

- Both drinking water and gel administration were significantly superior to non-vaccinates.
- Drinking water and gel administered groups had very similar results.



Results - Mortality

	Treatment				
-	Non-vaccinated, Lawsonia challenge control	Enterisol® Ileitis FF <u>gel</u>	Enterisol® Ileitis FF <u>water</u>	Enterisol® lleitis FF + Enterisol Salmonella T/C® gel	P-value
Removal and mortality, %	7.45 ± 0.92 ^b	4.31 ± 0.95ª	4.11 ± 0.95°	3.17 ± 0.93°	0.007

- Both drinking water and gel administration were significantly superior to non-vaccinates.
- Drinking water and gel administered groups had very similar results.



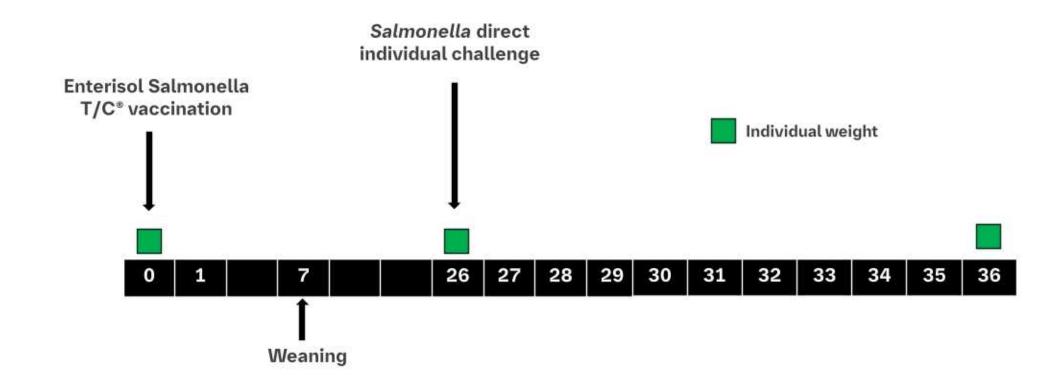
Salmonella Challenge Trial

Treatment	Treatment Description	Pigs/Trt
1	Non-vaccinated, Salmonella challenged control	24
2	Enterisol Salmonella T/C® NF Underline® gel administration	24
3	Enterisol Salmonella T/C® NF oral drench	24

 Objective: Compare the efficacy of oral administration of Enterisol Salmonella T/C® by gel and oral drench as measured by ADG and colon lesions in pigs experimentally challenged with Salmonella Typhimurium.



Study Timeline





Results - Intestinal Lesions

	Treatment			
	Non-vaccinated, Salmonella challenge control	Enterisol Salmonella T/C [®] gel	Enterisol Salmonella T/C® oral drench	P-value
Colon Lesions	0.40±0.14b	0.09±0.09a	0.04±0.04a	<0.0001

- · Both oral drench and gel administration were significantly superior to non-vaccinates.
- Oral drench and gel administered groups had very similar results.



Results - ADG

»	Treatment			
	Non-vaccinated, Salmonella challenge control	Enterisol Salmonella T/C [®] <u>gel</u>	Enterisol Salmonella T/C [®] oral drench	P-value
ADG (lbs/day)	0.27a	0.82b	0.83 ^b	<0.0001

- · Both oral drench and gel administration were significantly superior to non-vaccinates.
- Oral drench and gel administered groups had very similar results.



Conclusions – Gel Administration

- New, convenient, fast, stress-free option to orally administer Enterisol® Ileitis and Enterisol Salmonella T/C®.
- Provides the same level of efficacy as traditional drinking water and oral drench.
- Allows for vaccination in the sow farm, facilitating earlier vaccination and management of the med-free window.



Thank you! Questions?

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