

Ileitis control – the benefits of vaccination

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Pig production through the years has continuously evolved, as husbandry practices, environment control and disease management became more and more intensive – always aiming for the highest efficiency and farm profitability.

Shortening the growth period from weaning to finishing calls for improved average daily gain, wherein having a healthy digestive system plays a major role. Ileitis, due to *Lawsonia intracellularis*, is a widespread enteric disease of pigs that has been well documented to be a cause of global economic losses in the pig industry. The growth performance can be greatly affected to a point where nutrient absorption becomes significantly compromised depending on the severity of intestinal mucosal damage and lesion development.

Several earlier studies conducted in Europe, North America, and lately in Asia – particularly in the Philippines, China, Thailand and Japan – have consistently showed dramatic improvements in growth rate, uniformity, reduced mortality, feed efficiency and optimised medication cost in favour of vaccines compared to medicated control pigs.

This article reports the results from a meta-analysis of the field efficacy of Enterisol Ileitis (Boehringer Ingelheim Vetmedica Inc.), a modified live vaccine for oral administration among Asian swine farms.

Materials and methods

In total, 11,536 pigs from nine farms in four different countries were included and divided into two experimental groups (Table 1).

● Group 1, with 6,085 pigs, was vaccinated

Parameter	Vaccine	Control	Difference
Pigs (No.)	6,085	5,451	+634
ADG (g)	629	576	+53
FCR (kg/kg)	2.47	2.82	-0.35
Weight gain (kg)	80.10	72.50	+7.60
Mortality* (%)	0.11	0.53	-0.42
Uniformity (%)	72	58	+14
Medical cost* (\$)	0.32	1.22	-0.90
Gross margin/pig (\$)	41.98	30.81	+11.17

* Particularly for cases of acute ileitis

Table 1. Meta-analysis results of the performance efficiency in the two groups (birth to slaughter).

orally using either individual drenching and/or via drinking water at an average age of three weeks old.

● Group 2, with 5,451 pigs serving as the control, was given an equivalent volume of placebo, also administered in the same manner.

All medications were withheld for Group 1 three days before and after vaccination day, whereas, Group 2 continuously received the usual antimicrobial programme being implemented in the farm during the conduct of the trial.

In the study the performance of the vaccinated group was dramatically better than the control group (Table 1), as shown in all the parameters measured during the conduct of the respective field applications.

The average daily weight gain of +53g per day from farrow to finish, in favour of the vaccinated pigs, was one of the most appreciated benefits seen among the test animals, followed by uniformity improvement across the herds tested.

The latter was measured based on the market pig classification on bracketing method implemented on the farm – based

primarily on finished weights and/or body conformation. For instance, on average, pigs weighing 80kg and above are considered Class A, and are eventually sold as prime.

Similarly, the Class A pigs are prioritised for replacement gilt/boar pool selection and this is where the real premium from the programme comes from.

For both mortality and medication cost parameters, the most significant gains were observed in the fatteners and young breeders with apparent cases of acute ileitis.

Gross pathology, history and clinical signs, were used and strictly observed so as to preclude mortalities due to other causes.

Conclusion

In conclusion, this field study further establishes that vaccination with Enterisol Ileitis effectively controls and prevents the deleterious effects of ileitis due to *L. intracellularis* among Asian pig farms.

The increased gross margin shows vaccination to be a more beneficial tool in ileitis control than antibiotic treatment. ■