

INTRADERMAL VACCINATION AGAINST PRRSV AT WEANING LEADS TO BETTER GROWTH PERFORMANCE AND LESS CARCASS CONDEMNATIONS AT SLAUGHTER

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INTRODUCTION

Porcine reproductive and respiratory syndrome (PRRS) is a viral disease that affects pigs of all ages.

Vaccination against PRRSV is a common practice in French pig farms. Farms have different vaccination protocols based on their health situation.

Vaccinating piglets aims to reduce the severity of clinical symptoms and shedding which can improve herd health and technical performance. This case report describes the improvement on growth and carcass condemnation after the implementation of an intradermal vaccination program against PRRSV, PCV2 and *M.hyo* at weaning.

MATERIAL & METHODS

In a PRRS-stable farrow-to-finish farm, clinical signs and suboptimal performance in the fattening phase were associated with high titers of PRRS antibodies at 24 weeks of age.

Originally, the piglets were only vaccinated with a PCV2 and *M.hyo* combined vaccine (intramuscular).

That was changed to a complete intradermal vaccination protocol at weaning with Mhyosphere® PCV ID and Unistrain® PRRS ID with Hipradermic®.

This case-report compares slaughterhouse data from a before-group of 4 773 intramuscularly vaccinated pigs (IM-V) against PCV2 and *M.hyo* and an after-group of 5 846 intradermally vaccinated (ID-V) pigs against PCV2, *M.hyo* and PRRSV.

Tuckey test was used to assess statistical significance.

RESULTS

Trimming and carcass condemnation

The percentage of condemnation due to arthritis diminish significantly ($p < 0.05$) from 3.37% in IM-V to 2.39% in ID-V group.

The 0.15% of total condemnation in group ID-V is also significantly under the 0.33% of IM-V group ($p < 0.05$).

Table 1. Comparison of condemnation results

	IM-V n=4773	ID-V n= 5846	Diminution
% Arthritis trimming	3.37	2.39	29%
% Total condemnation	0.33	0.15	54.54%

Technical performances

Carcass hot weight increased ($p < 0.001$) and slaughter age decreased ($p < 0.001$) from IM-V to ID-V: intradermally vaccinated pigs were 3.1 kg heavier than IM-V pigs with a slaughter age lower by 5 days in average (Table 2.)

Table 2. Evolution of technical parameters

	IM-V n=4773	ID-V n= 5846	Gain
Carcass hot weight (kg)	92.8	95.9	+ 3.1
Slaughter age (d)	189	184	-5
ADWG W to F (g)	688	737	+49

Carcass classification

As resume in table 3, this led to an ADWG raising up to 49 g more for vaccinated pigs ($p < 0.001$). Improvement was also visible on carcass classification: the percentage of light carcasses (73-82.9 kg) was reduced from 6% in IM-V group to 1% in ID-V group.

Table 3. Evolution of carcass classification

	IM-V n=4773	ID-V n= 5846	Gain
% Light (73-82.9 kg)	6	1	-5 points
% Optimal range (83-105 kg)	90	91	+ 1 point
% Heavy (105.1-120 kg)	4	8	+ 4 points

CONCLUSIONS

In this farm the implementation of a complete intradermal vaccination program in pigs led to an increase of growth performance and helped to significantly diminish carcass condemnation. The estimated return of investment is 3.28€/ pig for the animals vaccinated with UNISTRAN® ID and MHYOSPHERE® PCV ID.