

Performance of Ingelvac MycoFLEX® among diverse commercial Mycoplasma vaccines in 1000-head sow farm in Korea



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INTRODUCTION

Swine enzootic pneumonia (SEP) is a widespread disease which leads to chronic pneumonia. The primary etiological agent is *Mycoplasma hyopneumoniae* (M.hyo). In general, vaccination is used as a tool to reduce the consequences of M.hyo infections¹. The purpose of this study is to evaluate the reduction of lung lesions and the increase of body weight under the field conditions among different M.hyo bacterin vaccines in Korea.

MATERIALS AND METHODS

The field trial was conducted on a farrow-to-finish farm with 1,000 sows. Pigs were weaned at 21 days of age, and transferred to the nursery house. A total of 1,600 piglets were included in this study. 400 piglets in every week were weighed and randomly assigned to four treatments groups (A to D) with 100 piglets each. The whole field evaluation was conducted over the period of four weeks. Treatments and products are summarized in Table 1. All pigs were individually tagged with unique ear tags, vaccinated at 4 weeks of age with the respective treatment and housed under equal conditions. The Kruskal-Wallis test was used to compare lung lesion scoring between groups with statistical significance set at $P < 0.05$.

Table 1: Study design

Group	# pigs	Treatment
A	400	1 ml Ingelvac MycoFLEX® (Boehringer Ingelheim)
B	400	2 ml Respire one® (Pfizer)
C	400	2 ml M+Pac® (SP-Intervet)
D	400	1 ml Mycoguard one time® (Protatek US)

Mortality and the body weight of pigs were measured at 4 weeks and 26 weeks of age. M.hyo specific antibodies were evaluated in a subset of pigs of each group (IDEXX ELISA) at day 0, 70 and 128 after vaccination (not shown). In addition, the M.hyo like lung lesions were examined in about 1,160 pigs by PigMON® scoring at slaughter.

RESULTS

Ingelvac MycoFLEX® vaccinated pigs had lower mortality rate, higher market weight as well as higher average daily weight gain (ADG) compared to all other groups (Table 2).

Table 2: Performances

	Mortality (%)	Market Weight (kg)	ADG (g)
Group A	6.3	118.4	696.6
Group B	7.5	115.6	671.4
Group C	11.0	114.8	644.7
Group D	7.0	116.9	682.6

Lung lesion scores for groups A to D were 6.7, 9.4, 9.3 and 10.3, respectively. Ingelvac MycoFLEX® scores were significantly lower than scores of groups B to D ($p < 0.05$). Additionally, the incidence rate of SEP negative lung was lower than all other groups. (Table 3)

Table 3: Lung lesion scores by PigMON® test

Slaughter test (1104/1600)	A (314/400)	B (226/400)	C (288/400)	D (276/400)
SEP Negative (%)	29.0	16.4	13.5	15.6
Lung lesion scoring (%)	6.7 ^a	9.4 ^b	9.3 ^b	10.3 ^b

DISCUSSION AND CONCLUSION

This study provides a valuable contrast between commercial M.hyo vaccines that are widely recognized in Korea. Ingelvac MycoFLEX® confirmed significant protection against M.hyo resulting in higher performance.

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REFERENCES

1. D. Maes et al, 1996, *Veterinary Quarterly*, 18(3):104 – 109

