



Allen D. Leman Swine Conference



Volume 39
2012

Published by: Veterinary Continuing Education

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SEROPREVALENCE AND SEROLOGIC PROFILES OF *Mycoplasma hyopneumoniae* IN COMMERCIAL SWINE FARMS IN CHILE

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Introduction

Mycoplasma hyopneumoniae (*M. hyo*) causes enzootic pneumonia and also considered to play a primary role in the porcine respiratory disease complex (PRDC). In Chile, don't have information about seroprevalence and serologic profiles of *M. hyo*. Therefore, the aim of study was determinate national serologic prevalence and seroprevalence per farm and serological profiles in intensive swine farms.

Material and Methods

21 intensive swine farms, 7 one-site farms and 14 multi-site farms were analyzed. In each farm, in total 60 serum samples were taken per farm, 10 each age at 3-4, 6, 10, 14, 18 and 22-24 weeks, in order to obtain the serologic profile using ELISA HerdChek® *M. hyo*.

Results and Discussion

All farms studied were seropositive, and the maternal immunity was observed until 10 weeks. In order to determinate seroprevalence, only were considered ≥ 10 week old pigs, to excluded maternal antibodies (table 1). The prevalence in one-site farms was 62.5%, and 33.3% for multi-site farms ($P \leq 0.05$). About the seroprofiles, the farms shown 3 different patterns; 4 farms presented maternal immunity without active immunity, 8 farms shown cross passive immunity and active immunity and 9 farms shown passive immunity and active immunity without overlapping. In Chile, is the first work reporting prevalence and serologic profiles against *M. hyo*, the second step could be determinate the incidence and risk factors of presentation of *M. hyo* in Chile, therefore, more studies are necessary.

Table 1. Seroprevalence of *M. hyo* in 21 intensive swine farms (95% confidence interval). Different letters above the numbers indicate a significant differences in general prevalence between one-site farms and multi-site farms.

Farm	Prevalence CI	Farm	Prevalence CI	Farm	Prevalence IC
G001	33,3 (31,6 - 34,9)	G008	14,2 (13,4 - 14,9)	G016	63,6 (60,4 - 66,8)
G002	70,3 (66,8 - 73,9)	G009	78,2 (74,3 - 82,1)	G017	"0"
G003	47,9 (45,5 - 50,3)	G010	"0"	G018	25,4 (24,1 - 26,7)
G004	63,6 (60,4 - 66,8)	G011	55,7 (52,9 - 58,5)	G019	"0"
G005	18,7 (17,7 - 19,6)	G012	10,8 (10,2 - 11,3)	G020	36,6 (34,8 - 38,5)
G006	"100"	G013	10,8 (10,2 - 11,3)	G021	"0"
G007	92,8 (88,2 - 97,4)	G014	97,3 (92,4 - 102,2)	2-3 sites \bar{x}	33,3 ^b (31,6 - 34,9)
1-Sites \bar{x}	62,5 ^a (59,3 - 65,6)	G015	74,8 (71,1 - 78,6)	National	44,5 (37,5 - 46,7)