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Cross-Sectional Serology Study Against *Lawsonia intracellularis* in Mexico
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Introduction and Objectives

Lawsonia intracellularis is the cause of porcine proliferative enteropathy (PPE), and represents a high economical impact in growing pigs, affecting daily gain and feed efficiency¹. Recent studies performed in México demonstrate a prevalence of 39% in growing pigs². In order to establish the correct strategy for the control and prevention of this disease, is important to determine the timing of infection with *Lawsonia intracellularis* in pigs.¹ According to several authors, the disease is mostly presented in finisher stage⁴ but there is little information about the situation in Mexico. The objective of this study was to determinate the most common stage of infection with *Lawsonia intracellularis* in growing pigs by the presence of antibodies against *Lawsonia intracellularis*, using a cross sectional serology study in several farms in the country.

Material and Methods

The study was conducted with 856 samples obtained during the year 2004, coming from 43 farms located in different parts of Mexico. The serological test used was an IFA against antibodies of *Lawsonia intracellularis*. The sensitivity of IFA test has been reported as 90% and the specificity as 99%³. A serum data base was grouped by age to accomplish the cross sectional serology study.

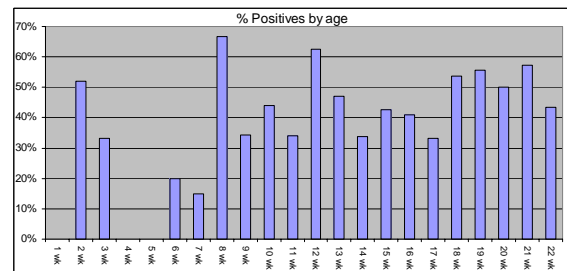
Results and Discussion

Table 1 shows the positive percentage by pig age.

Table 1. Number of tested & pos. animals by age.

Age	Samples/Positive (%)
1 Wk	15/0 (0%)
2 Wk	25/13 (52%)
3 Wk	30/10 (33%)
4 Wk	25/0 (0%)
5 Wk	30/0 (0%)
6 Wk	35/7 (20%)
7 Wk	40/6 (15%)
8 Wk	30/20 (67%)
9 Wk	35/12 (34%)
10 Wk	50/22 (44%)
11 Wk	41/14 (34%)
12 Wk	48/30 (63%)
13 Wk	66/31 (47%)
14 Wk	68/23 (34%)

15 Wk	47/20 (43%)
16 Wk	56/23 (41%)
17 Wk	45/15 (33%)
18 Wk	41/22 (54%)
19 Wk	36/20 (56%)
20 Wk	28/14 (50%)
21 Wk	35/20 (57%)
22 Wk	30/13 (43%)



The results show that the higher prevalence of *Lawsonia intracellularis*, by IFA test, occurs in Week 8 (67%) and week 12 (63%) of age (P<0.005). This suggests an early infection in nurseries, which differs from the results found in previous studies⁴.

The present results could indicate an early infection as indicated by the decrease of maternal antibodies and subsequent serconversion, though further investigation is needed to demonstrate this. Therefore, a cross sectional serological study should take place in each farm before structuring and beginning a control and prevention program against *Lawsonia intracellularis*.

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