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## Editors
W. Christopher Scruton
Stephen Claas

## Layout
David Brown

## Logo Design
Ruth Cronje, and Jan Swanson;
based on the original design by Dr. Robert Dunlop

## Cover Design
Shawn Welch



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**PIG SURVIVAL WITHIN TRADITIONAL PRODUCTION AND INTERACTION OF PRRS, CLASSICAL SWINE FEVER AND OTHER PATHOGENS AT GUANAJUATO STATE IN MEXICO**

*Norma Sierra-Romero, CENID-Microbiología, INIFAP, México, D.F.
Ramiro Ramirez-Necoechea, Producción Agrícola y Animal, UAM-X, México, D.F.
Patricia Aguilar-Olvera, Laboratorio de Patología de Cerdos, Irapuato, Gto, México
Fernando Aguirre-Bravo, UGRPG, Irapuato, Gto. México

Traditional, rural and suburban pig production is the most outstanding practice in Mexico, where millions of owners with backyard pigs are spread all over the country, estimated to be a 30% of the national pork meat consumption.

The genetic quality of animals is poor, which reflects low productivity, though it's amazing the capability of survival within environment conditions and food quality supply, as the pigs optimize nourishment for fattening, slaughter is without sanitary supervision and sold at local markets or used for family consumption.

The state of Guanajuato has 2,214 organized pork producers, yet there are 10,615 traditional or rustic backyard farms which represent an important pig market business with social and economic impact.

This study was focus at 2 municipalities (Irapuato and Pénjamo), where 15 farmers accepted the technical visit, gave information, allowed clinical and pathological study where blood and tissue samples were taken for pathogen identification.

Results show that pigs are mainly Yorkshire and hybrids, mating is applied, only 2 follow production control with biosecurity medium measures, poor rustic units, different age animals in cluster pens where fighting and injuries are common, feeding competition, medication is used only when disease is evident, no vaccination except within the 8 farms located at Pénjamo municipality where they use once a year the modified live vaccine for Classical Swine Fever (strain PAV-250).

The identified syndromes are the following: Septicemic (fever, anorexia, stillness and cyanosis), Reproductive failure (abortion, delay and *prepartum*, mummies, death-born piglets, irregular returns, repeated estrus and purulent *postpartum* vaginal discharges), Digestive (diarrhea, vomiting and anorexia), Growth delay (hairy pigs with prominent bone projections, different degree of emanations and big-headed), Respiratory (coughing, thumping, sneezing, mucus, oily tears and rhinitis), and Neurogenic (nistagmo, paddling, dome head, and incoordination).

The high predominant bacterial agents isolated were: E*scherichia coli, Proteus vulgaris* and *Erysipelothrix rhusiopathiae*; as intermediate predominance *Pseudomonas spp*; and as low predominance *P. multocida, H. parasuis, A. pleuropneumoniae* and *S. cholerasuis*. The other bacteria isolated are part of the common intestinal flora. The antibiotic treatment might have masked those important pathogens.

The serology results demonstrate the presence of antibodies against PRRS (18%) and CSF (60%), though isolation is not done yet, there is interaction of both viruses within the farm animals:

| MUNICIPALITY | ELISA (antibodies) | | | |
|---|---|---|---|---|
| | PRRS | | CSF | |
| | + | - | + | - |
| IRAPUATO (7 farms) | 11 | 96 | 19 | 88 |
| | 10% | 90% | 18% | 82% |
| PENJAMO (8 farms) | 20 | 49 | 52 | 17 |
| | 29% | 71% | 75% | 25% |
| TOTAL: 176 samples | 31 | 145 | 71 | 105 |
| | 18% | 82% | 40% | 60% |

One of the main problems observed when vaccination against CSF is applied within infected herds affected by the presence of PRRSV, is the diversity of clinical post-vaccinated manifestations associated to primary and secondary pathogens circulating at the farms, which range from clinical cases characterized by mild signs up to complex and aggressive multi-etiological cases.