Willingness to Approach Behavior and Feed Disappearance of Weaned Pigs Following Vaccination With Mycoplasma Vaccines

Tom Fangman a, Roy A. Edler b, David Baumert c & Paul Dubois c

a Boehringer Ingelheim Vetmedica, Inc., Booneville, Missouri
b Boehringer Ingelheim Vetmedica, Inc., Ames, Iowa
c Cargill Meat Solutions, Wichita, Kansas

Published online: 24 Mar 2009.

To cite this article: Tom Fangman , Roy A. Edler , David Baumert & Paul Dubois (2009) Willingness to Approach Behavior and Feed Disappearance of Weaned Pigs Following Vaccination With Mycoplasma Vaccines, Journal of Applied Animal Welfare Science, 12:2, 149-150, DOI: 10.1080/10888700902720292

To link to this article: http://dx.doi.org/10.1080/10888700902720292

PLEASE SCROLL DOWN FOR ARTICLE
Willingness to Approach Behavior and Feed Disappearance of Weaned Pigs Following Vaccination With Mycoplasma Vaccines

Tom Fangman,¹ Roy A. Edler,² David Baumert,³ and Paul Dubois³

¹Boehringer Ingelheim Vetmedica, Inc., Booneville, Missouri
²Boehringer Ingelheim Vermedica, Inc., Ames, Iowa
³Cargill Meat Solutions, Wichita, Kansas

An adaptation of the nonhuman animal observation section of the 2003 Swine Welfare Assurance program (SWAP) was utilized to evaluate the behavior of weaned pigs following vaccination with Ingelvac MycoFLEX® (Boehringer Ingelheim Vetmedica, Inc., St. Joseph, MO) and Respisure®-One (Pfizer Animal Health, Exton, PA). The objective was to determine if field observations of markedly reduced pig activity following vaccination with certain Mycoplasma hyopneumoniae vaccines could be confirmed and quantified by observing post-vaccinal pig behavior and feed disappearance. A total of 1,832 weaned pigs 17–23 days of age were allocated across 72 nursery pens (36 pens per treatment group), resulting in approximately 25 pigs/pen with pen as the experimental unit.

Pigs were evaluated to determine willingness to approach and feed disappearance behavior pre- and postvaccination with each population of pigs serving as its own prevaccination baseline for postvaccination behavior observations. After entering and crouching down in a pen, the blinded observer counted all pigs who approached him during a 15-s period. The pigs approaching the observer were designated as willing to approach. The difference in pre- and postvaccination values is reported here as a decrease in percentage approachability.

A significant decrease in postvaccination willingness to approach was observed within both groups of pigs (p < .0001). However, the decrease in willingness to approach was significantly less for the Ingelvac MycoFLEX® vaccinated pigs compared with the Respisure-One vaccinated pigs (11.38% vs. 27.05%, p < .0001). The Ingelvac MycoFLEX® vaccinated pigs consumed significantly more feed through 24 and 48 hr postvaccination (p < .0001 and p = .0001, respectively). These findings suggest that willingness to approach...
and feed consumption may be useful parameters for assessing vaccine reactivity (side effects) in pigs.

Daily Routine Changes in Young Group-Housed Swine Infected With *Salmonella*

Janet H. Higginson,1 Jeffrey T. Gray,2 Cate E. Dewey,1
Tina M. Widowski,3 and Suzanne T. Millman1,4

1Ontario Veterinary College, University of Guelph,
Guelph, Ontario, Canada
2Department of Microbiology & Immunology, Des Moines University
3Ontario Agricultural College, University of Guelph,
Guelph, Ontario, Canada
4Veterinary Diagnostic and Production Animal Medicine, and
Biomedical Sciences Departments, Iowa State University, Ames

Illness can result in compromised welfare and altered needs for the sick nonhuman animal. This research was done to determine alterations in the daily routine of groups of young pigs containing an infected individual. Twelve groups of 5 Landrace/Yorkshire weaned pigs (*n* = 60 pigs) were housed in separate biosecure rooms. One animal was randomly selected from each group as the seeder animal and given 10⁷–10⁸ colony forming units of *Salmonella Typhimurium* orally on Day 0. Pens were videorecorded during daytime hours and 5-min scan samples were used to assess behavior from Day −1 to Day +6 of the trial. Observers were able to identify pigs by individual markings and were blind to treatment. Mixed model analyses with repeated measures statements to account for correlation were constructed.

The amount of time spent performing various activities, such as lying, standing, and moving, did not differ between seeder animals and their penmates (*p > .05*). There was a significant day effect, with lying decreasing and standing increasing by day as the trial progressed (*p < .0001*). The amount of time spent at the feeder was not significantly different between seeders and their penmates.

Correspondence should be sent to Janet H. Higginson, Department of Population Medicine, Ontario Veterinary College, University of Guelph, 50 Stone Road East, Guelph, Ontario N1G 2W1, Canada. Email: jhiggins@uoguelph.ca