Sponsors

We thank the following sponsors:

Platinum
Bayer Animal Health
National Pork Board
Pfizer Animal Health

Silver
Boehringer Ingelheim Vetmedica, Inc.

Bronze
Cargill
Merck Animal Health
Novartis Animal Health

Copper
AgStar Financial Services
Elanco Animal Health
IDEXX
Newport Laboratories
PIC USA
PRRS CAP

University of Minnesota Institutional Partners
College of Veterinary Medicine
University of Minnesota Extension
College of Food, Agriculture and Natural Resources Sciences

Formatting
Tina Smith Graphics
www.tinasmithgraphics.com

CD-ROM
David Brown
www.davidhbrown.us

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

Husbandry Education™ Effect on Nursery Mortality, Weight and Treatment Cost

L. Galina, DVM, PhD; C. Minder, D. Amodie, MA, E. Farrand.
Pfizer Animal Health, USA.

Introduction and Objectives

One of the challenges in managing nursery pigs is identifying and appropriately handling pigs with early-stages of disease. Subclinical or unapparent infections in post-weaning pigs when left untreated can have an adverse effect on profitability [1,2]. The objective of this study was to determine if Husbandry Education™ affects swine productivity by identifying and treating sick pigs early.

Material and Methods

Pfizer Animal Health provided a production system with an embedded husbandry educator (HE) who trained caregivers on best practices while focusing on the barn environment, the pen and the individual pig for the first two weeks post placement in the nursery. The HE used a systematic approach based on daily classification of sick pigs as A, B or C and treating them at the early stages of disease. Other training included execution of farm protocols, placing and sorting pigs, environmental management and time management. The effect of the HE was measured on 12 geographically separate sites. Production data were obtained from close outs before the HE trained at each site (standard care or SC) for use as historical controls as well as after (HE). On average 6 and 6.9 nursery close outs were evaluated from the period before the HE was embedded and after respectively. Mortalities, weaning and feeder weights and individual cost of medication were determined at each nursery phase close out. To measure the effects of Husbandry Education™ on pig production data were analyzed with a linear mixed model and all test of treatment differences were 2-sided and performed at the 5% level of significance.

Results and Discussion

The LSM weaning weight was nearly identical between groups (Table 1). The LSM differences in mortality rate, feeder weight and treatment cost per pig were all significantly better for the HE group compared to the SC group (Table 1). HE pigs had 0.52% lower mortality, with a 1.71 lb advantage in feeder weight and a 50% reduction in therapeutic individual treatment cost. Applied across the entire nursery inventory of SC pigs, this represented an excess death loss of >84,000 pigs. Applied across the SC pig inventory, the improvement in feeder weight translated into an increase of >288, 800 lbs. The reduction in treatment cost represented a total savings of >$91,000 for the HE pig inventory. The large number of pigs evaluated at multiple sites and during all seasons of the year added validity to the outcomes.

Table 1. Comparison of outcomes in nursery pigs monitored by a husbandry educators vs. standard-care control pigs.

	LSM± SD by test group		
	HE	**SC**	**p-value**
Inventory	168,901	162,691	
Mortality (%)	3.12±1.17	3.64±3.50	<0.0001*
Weaning wt (lbs)	12.95±0.95	12. 97 ±0.61	0.884
Feeder wt (lbs)	57.95±4.10	56.24±5.41	0.021*
Tx cost/pig ($)	0.54±0.52	1.08±0.72	<0.0001*

HE= husbandry educator, SC= standard care, SD= standard deviation. * Statistically significant versus control group (p≤0.05).

This study affirms the value of Husbandry Education™ and placing the health of the pig first. In particular, the A-B-C classification system and the daily examination of every pig, were key factors in detecting early-stage disease or suboptimal performance in individual animals.

References

[1] *Smart NL et al, 1989. Can Vet J. 30: 339-343.*

[2] *Oppriesnig* et al, 2007. J Vet Diagn Invest. 19:591-615.