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Does combiotic administration at artificial insemination improve fertility?

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Abstract

Injecting gilts with 10 ccâ€™s combiotic at artificial insemination did not improve farrowing rate or litter size.; Swine Day, Manhattan, KS, November 11, 1982

Keywords

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Does Combiotic Administration at Artificial Insemination Improve Fertility?

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Summary

Injecting gilts with 10 cc's combiotic at artificial insemination did not improve farrowing rate or litter size.

Introduction

Some swine producers inject antibiotics when artificially inseminating sows and gilts believing that fertility is improved. Since no controlled experiments have been conducted, we compared gilts injected with combiotic to nontreated controls.

Procedures

Two trials were conducted using 7 to 9 month old gilts. Gilts were either checked twice daily for estrus and artificially inseminated at the second and third checks after estrus was detected, or were artificially inseminated on the fifth, sixth and seventh days after an estrous synchronization treatment without checking for estrus (fixed-time AI). The trial studying fixed-time AI is continuing and results will be presented in a future Swine Day Report. Half of the gilts received no combiotic and served as controls. Half of both heat-checked and fixed time AI gilts received 10 cc combiotic at 1 p.m. on the day of first insemination and the following day for heat-checked gilts and for the three days of insemination for fixed time AI gilts.

Results and Discussion

Farrowing rate and litter size were not affected by combiotic treatment (table 1). Overall 80% of gilts farrowed in each treatment group and average litter sizes were nearly identical. We conclude that combiotic treatment did not improve fertility. These results also illustrate the need to use substantial numbers of animals when evaluating fertility traits. Notice that Trial I results suggest an improvement in farrowing rate due to combiotic but in trial II a similar difference in favor of nontreated controls occurred. In each case, actual difference in gilts farrowing was only 6 or 7 animals and was likely due to chance.

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[1]Pfizer,Inc., N.Y., Each cc Contains 200,000 units of procaine penicillin G and dihydrostreptomycin sulphate equivalent to .25g dihydrostreptomycin base.

Table 1. Farrowing Performance of Combiotic-Treated and Control Gilts

Item	Trial I		Trial II		Trial I and II Combined	
Farrowing rate	Control	Combiotic	Control	Combiotic	Control	Combiotic
No. of gilts	58	58	44	43	102	101
No. farrowed	41	47	41	34	81	81
% farrowed	71%	81%	93%	79%	80%	80%
Litter size						
Total farrowed	10.9	10.1	10	10.1	10.4	10.1
Farrowed alive	10.2	9.6	9.4	9.9	9.8	9.7