

## INCLUDING ANTIBIOTICS IN SOW RATIONS TO REDUCE BABY PIG LOSSES

Many baby pigs die before weaning from scours, miscellaneous infections and starvation caused by a sow failing to milk. Feeding high levels of antibiotics two weeks before and for three weeks after farrowing is reported to reduce baby pig losses, improve milk production in the sow and increase the number of pigs weaned.

In March 1975, 16 bred sows and gilts were divided into equal groups according to their expected farrowing dates. Approximately five days prior to farrowing they were moved into the farrowing barn and were allotted to receive either the medicated or non-medicated ration.

The trial was run again during fall farrowing, September 1975. There were no changes in the experimental design, or the manner in which the sows and gilts were handled. However, twenty sows and gilts, with an equal number of Yorkshire X Duroc crossbreds in each group, were used for the fall experiment. In 1975, the antibiotic (containing 15 gms./lb. of oxytetracycline and 10 gms./lb. neomycin) was top dressed on the sows ration at the rate of 27 grams per sow per day. This rate of medication was continued to the medicated group until three weeks after farrowing.

Table 5 shows the three rations as fed in 1975. The gestation ration was fed until the sows went into the farrowing barn. The early-lactation ration was fed for approximately seven days at which time the change was made to the higher energy lactation ration. The lactation ration was then fed until weaning.

<b>Table 5 - sow gestation and lactation rations</b>			
	Gestation ration	Early Lactation ration	Lactation ration
Alfalfa hay, lbs.	300	---	---
Barley, lbs.	---	---	676

Oats, lbs.	672	970	175
Soybean oil meal, lbs.	---	---	125
Limestone, lbs.	10	10	9
Dicalcium phosphate, lbs.	10	10	9
Trace mineral salt, lbs.	7.5	7.5	5
Vitamin B complex, lbs.	1	1	1
Vitamin A, grams	75	75	30
Vitamin D <sub>3</sub> , grams	14	14	14

<b>Table 6 - Results of trials with the use of neomycin-oxytetracycline in sow ratios</b>										
	Treated					Check				
	Spring			Fall		Spring			Fall	
	1973	1974	1975	1975	Avg.	1973	1974	1975	1975	Avg.
Number of litters	12	12	8	10	10.5	11	12	8	10	10.3
Crossbreds	8	6	---	5	4.8	2	5	---	5	3.0
Straightbred	4	6	---	5	3.8	9	7	---	5	5.3
Number living at birth	129	138	62	97	107	131	121	63	94	102

Avg. birth wt., lbs.	2.6	2.8	2.9	3.0	2.8	2.5	2.9	2.7	3.0	2.8
Number living at weaning	113	109	55	83	90	81	94	50	85	78
Avg. wn. wt., lbs.	28.2	28.2	16.1	21.8	23.6	29.9	26.4	16.2	22.8	23.8
Avg. age at weaning, days	51	45	30	35	40	56	45	30	35	42
Avg. daily gain, birth to wn., lbs.	.50	.56	.44	.55	.51	.52	.52	.45	.53	.51
Percent alive at weaning	88	79	89	86	85	62	78	79	90	76
Sows requiring additional medication	5	4	2	3	3.5	3	3	3	2	2.7

Summary: During four farrowings, the use of neomycin-oxytetracycline medication in sow rations has resulted in 9 percent more pigs weaned, which under our conditions of sanitation, nutrition and farrowing management is not a statistically significant increase. Sanitation and nutrition practices at this station have contributed to a nonsignificant increase in the number of pigs weaned. These include the following: 1. After each spring and fall farrowing, the farrowing facility is thoroughly washed, disinfected and allowed to stand empty, often under freezing conditions. 2. The feeding of a bulky early lactation ration seven days after farrowing has laxative properties and reduces milk production. A heavy milk flow contributes to baby pig scours, until the baby pig has become stabilized.

Since management practices and disease organisms encountered are extremely variable from one farm to another, this medication should not be ruled out as a management tool to be used when baby pig scours or uterine infections, which can lead to milk flow interruption, become a problem.

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