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THE EFFECT OF INJECTABLE AND ORAL IRON FOR BABY PIGS ^{1/}

Eldon Juhl and Richard C. Wahlstrom

Iron is an essential mineral element for all animals. It is particularly important for the baby pig because they are born with only small amounts of iron stored in their bodies and milk does not contain enough iron to meet their needs. Therefore, some supplemental source of iron is needed in order to prevent anemia. Anemia can cause death of pigs but more often the losses from anemia are due to reduced growth and a lowered resistance to other diseases.

Experimental Plan

Two hundred and ten Duroc, Hampshire, Poland China and Spotted Poland China pigs were used in this test. During the first day of life one half of the pigs in each litter received an iron pill orally during the first day and again when ten days old. The pigs were farrowed in concrete floored pens and remained there until they were from seven to ten days of age when the sows and litters were moved to rye pastures.

Blood samples were taken from 44 of the pigs at birth, ten days and twenty days of age. Hemoglobin values were determined on each blood sample. The litters used in this phase of the experiment remained on concrete until the twenty day blood sample had been collected and then they too were moved to rye pastures.

Table 1 The Effect of Different Iron Treatments for Baby Pigs

	Injection ^a	<u>Blood Data</u>	Oral ^b
No. pigs	22		22
Hb. %, birth	11.3		10.6
Hb. %, 10 days of age	10.8		9.3
Hb. %, 20 days of age	9.7		9.3
		<u>Weight Data</u>	
No. pigs	105		105
Av. birth wt., lbs.	3.2		3.2
Av. 28 day wt., lbs.	15.5		15.6
Av. total gain, lbs.	12.3		12.4

^a Two cc. Armidexan injected during first day.

^b One tablet containing 292 mg. reduced iron, 16 mg. copper sulfate and 2.0 mg. cobalt sulfate given during first day and again on the tenth day.

Summary of Results

There were no significant differences in the performance of either group of pigs. Those pigs that received the iron injection had less decrease in average hemoglobin levels from birth to ten days of age than did those given the iron pill. However, at twenty days of age there was little difference between the hemoglobin values of the two groups. Weight gains were not affected by the method of treatment.

Both methods of iron treatment were satisfactory in this trial as there was no evidence of anemia in any of the pigs. Differences do exist however in labor required to administer the iron and in cost of the products. More labor was involved with the oral iron since there pigs had to be handled twice. The cost of the pills was 0.6 cents each or 1.2 cents for two pills. The injectable iron cost approximately 25 cents for each 2 cc. dose.