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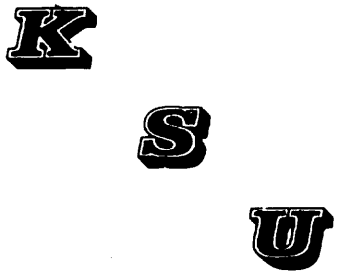

Preventing Baby Pig Anemia Times of Injection Compared

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Summary

Fourteen litters (120 pigs) were used to study effects of iron injections on day one or day four after birth. No differences were detected in weight gains, hematological values of hemoglobin, packed cell volume, or red blood-cell count. The results indicate that injectable iron dextran may be administered on day one along with other husbandry practices (dipping navel cords, clipping needle teeth, ear notching) with no adverse effects. A disadvantage would be iron lost in pigs that die before day four from crushing, inanition, etc.

Procedure

Four Yorkshire, five Hampshire, and six Duroc litters totaling 120 pigs were used to compare effects from administering iron on day 1 or day 4 after birth. Half of each litter received 150 mg. of iron dextran complex* within 12 hours after birth; the other half on day four after birth. All injections were given intramuscularly into the necks. Blood samples were collected on days 14 and 28 after birth to determine packed-cell volume (PCV), hemoglobin (Hb), and erythrocyte count (RBC). Necropsies were performed on pigs that died to determine if iron toxicity was a factor. All pigs were weighed at 14 and 20 days of age. Creep rations were offered the pigs starting the 14th day after birth.

Results and Discussion

Hematological and gain data for the two groups are given in Table 22. Differences were not significant between groups in weight at 14 days or at 28 days, hemoglobin, packed cell

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* Ferrextran 100, Fort Dodge Laboratories, Inc., Fort Dodge, Iowa

volume, or erythrocyte count at 14 or 28 days of age. Five pigs that received iron on day one and fourteen that received iron on day four died during the first week. Death resulted from inanition, crushing, and colibacillosis. There was no evidence of iron toxicity.

The general recommendation for preventing baby pig anemia with injectable iron has been to administer the iron on the third or fourth day after birth. This has been based on the iron requirements of the newborn pig, the ability of the newborn pig to utilize the iron, the possibility of iron toxicity at younger ages, and the majority of pig deaths occuring the first 48 hours so cost of iron injections for them is saved. Results given here indicate that injectable iron can be given the first day or when other husbandry or health procedures like ear notching, dipping navel cords, or clipping needle teeth are done.

Table 22. Iron Injections on Day One or Day Four Compared To Prevent Pig Anemia

Time of injection[1]	Day one	Day four
No. pigs	70	50
Avg. birth wt., lbs.	3.69	3.33
Avg. 14 day wt., lbs.	9.04	8.79
Avg. 28 day wt., lbs.	15.60	15.95
14-day packed cell colume, %	34.68	34.47
28-day packed cell volume, %	33.52	33.76
14-day hemoglobin, grams, %	10.46	10.39
28-day hemoglobin, grams, %	10.38	10.38
14-day red blood cell count, 000	4,630	4,500
28-day red blood cell count, 000	5,270	5,300

[1] 150 mg. of injectable iron was given intramuscularly (neck)