

**EFFECT OF SUBSTITUTING CALF MILK REPLACER WITH
PORCINE WHOLE BLOOD ON THE GROWTH AND PERFORMANCE
OF BULL CALVES**

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Most of the calves in the commercial farms are fed with milk replacer during their liquid feeding period. As an alternative low cost protein ingredient, porcine whole blood was evaluated by substituting as a possible calf milk replacer.

Twelve (12) male Holstein-Friesian calves (weight 40±5 kg and 21±10-day old) were used for the experiment. The study period was 42 days. After adaptation period of seven days, calves were assigned randomly for three groups. The control group of calves was fed with 100% calf milk replacer, while the other two groups were fed with milk replacer substituted with 10% whole blood and 15% whole blood. The animals were fed with 4 L and 3 L of milk replacer/milk replacer containing whole blood per day in the first month and for the rest of the research period respectively. All other management practices were performed similarly for all the calves used in the experiment. Daily intakes, rectal temperature and fecal consistencies of each animal were recorded. Body weight, heart girth, body length, skinfold thickness were measured weekly. Daily intake of milk replacer/milk replacer substituted with blood was the same for all calves throughout the experiment period. Body weight gain/week, heart girth, body length, skinfold thickness were analyzed as repeated measures ANOVA using the Mixed Procedure of SAS.

There was no significant difference ($p>0.05$) in the body weight gain (2.5±0.6 kg/week), heart girth (85±5 cm), body length (68±5 cm) and skinfold thickness (1.090±0.2 cm), concentrate intake (3±1.9 kg/week) among the treatments. The result of this experiment demonstrates that 10% and 15% of calf milk replacer can be successfully substituted by porcine whole blood. The findings suggest the possibility of using whole blood of pigs obtained as a slaughterhouse by-product to reduce the cost of feed in rearing calves.

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