

PREWEANING PERFORMANCE OF CALVES OF BRAHMAN CROSS COWS SIRED WITH WAGYU AND BELGIAN BLUE BULLS

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OBJECTIVES

This study was conducted to observe the preweaning growth performance of calves of Brahman Cross cows sired with Wagyu and Belgian Blue bulls.



MATERIALS AND METHODS



- Eighty heads of Brahman Cross cows were divided into three groups.
- The first group was artificially inseminated with Belgian Blue bulls
- The second group was artificially inseminated with Wagyu bulls
- The third group was naturally mated with Brahman Cross bull
- The calves were raised together with their dams until they reached their weaning age, i.e. six months old
- The data collected was analyzed by one way analysis of variance



RESULTS

Table 1. Body weight and size of calves

Variable	Breed	Age (day)			
		0	60	120	180
Body weight (kg)					
	BBBxBX	32.17±5.17	78.19±10.67 ^a	115.81±15.61 ^b	164.71±20.77 ^c
	WagyuxBX	29.15±10.95	67.19±6.85 ^b	104.55±11.44 ^b	141.60±11.32 ^b
	BXxBX	28.20±6.52	56.23±10.45 ^c	76.99±16.31 ^a	98.42±19.94 ^a
Body length (cm)					
	BBBxBX	63.50±3.90	69.64±4.37 ^b	82.02±4.34 ^b	89.91±3.57 ^b
	WagyuxBX	59.31±9.61	71.53±4.92 ^b	79.28±7.80 ^{ab}	89.73±10.03 ^b
	BXxBX	58.93±6.43	64.31±5.31 ^a	74.21±7.39 ^a	79.20±6.87 ^a
Withers height (cm)					
	BBBxBX	69.38±3.77 ^a	81.05±3.65	91.24±3.59	99.87±4.02 ^b
	WagyuxBX	70.00±6.95 ^{ab}	82.17±2.75	90.97±6.64	94.99±7.70 ^{ab}
	BXxBX	73.87±4.73 ^b	81.39±3.61	88.25±4.29	92.30±4.20 ^a
Heart girth (cm)					
	BBBxBX	72.08±4.38	99.85±6.97 ^b	113.37±6.86 ^c	128.42±6.73 ^c
	WagyuxBX	71.54±8.66	91.83±3.29 ^a	104.88±6.66 ^b	114.85±6.79 ^b
	BXxBX	74.67±6.80	89.64±6.07 ^a	96.12±7.09 ^a	103.24±5.66 ^a



Table 2. Body weight and size gain of calves

Variable	Breed	Age (60 days)			
		1 st	2 nd	3 rd	total
Body weight (kg/day)					
	BBBxBX	0.77±0.22 ^b	0.63±0.11 ^b	0.82±0.16 ^c	0.74±0.13 ^c
	WagyuxBX	0.63±0.17 ^b	0.62±0.22 ^b	0.62±0.15 ^b	0.62±0.06 ^b
	BXxBX	0.47±0.17 ^a	0.35±0.13 ^a	0.36±0.16 ^a	0.39±0.11 ^a
Body length (cm/day)					
	BBBxBX	0.10±0.12 ^a	0.21±0.06	0.13±0.04 ^{ab}	0.15±0.03 ^b
	WagyuxBX	0.20±0.13 ^b	0.13±0.12	0.17±0.10 ^b	0.17±0.03 ^b
	BXxBX	0.09±0.07 ^a	0.17±0.13	0.08±0.08 ^a	0.11±0.03 ^a
Withers height (cm/day)					
	BBBxBX	0.21±0.08 ^b	0.17±0.05 ^b	0.14±0.03 ^b	0.18±0.02 ^c
	WagyuxBX	0.20±0.08 ^b	0.15±0.08 ^{ab}	0.07±0.07 ^a	0.14±0.02 ^b
	BXxBX	0.13±0.04 ^a	0.11±0.05 ^a	0.07±0.04 ^a	0.10±0.02 ^a
Heart girth (cm/day)					
	BBBxBX	0.47±0.15 ^b	0.23±0.05 ^b	0.25±0.04 ^b	0.32±0.05 ^c
	WagyuxBX	0.34±0.11 ^a	0.22±0.09 ^b	0.17±0.06 ^a	0.24±0.03 ^b
	BXxBX	0.25±0.08 ^a	0.11±0.06 ^a	0.12±0.08 ^a	0.16±0.03 ^a

CONCLUSION

It is concluded that crossing Brahman Cross cows with Belgian Blue and Wagyu bulls improves body size and weight gain of calves and crossing with Belgian Blue bull give better improvement than that with Wagyu bull.