

Gestation Periods For a Herd of Cattle In Honduras ¹

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Information on the gestation length of European, or so called British, breeds of beef cattle is abundant. However, this is not the case for cattle of Brahman breeding. Limited information concerning the gestation period of Brahman cattle indicate that they carry their calves a few days longer than do the British breeds of beef cattle but more data is needed on this factor.

Burris and Blunn (1) found that the average gestation length of Angus cows was 281.7 days compared to 286.1 days for Hereford cows while Wheat and Riggs (2) reported 279.5 days and 284.9 days for herds of Angus and Hereford cows, respectively. These studies, as well as many more with similar results, were conducted in the United States. Joubert and Bonsma (3), working in the sub-tropics, found that Herefords had average gestation lengths of 287.3 days. Thus, there is some small degree of variation in the gestation lengths of the British breeds but for all practical purposes the average figure of 283 + 2 days is generally used today.

In regard to reported gestation periods for Brahman breeds of beef cattle, Briquet and De Abreu (4) found an average gestation length of 292.5 days for a group of Guzerat cattle. A study by Villares and De Abreu (5) in Brazil, showed that the average length of gestation periods for the Nellore, Gir and Guzerat breeds of Brahman cattle were 291.5, 289.0 and 291.9 days respectively. Veiga et al (6) reported similar results with a group of Nellore cows; 291.4 days. These limited data indicate that the Brahman breeds average at least 290 days for their gestation periods.

The major object of the study reported herein was to investigate certain reproductive factors in a group of purebred Brahman cattle

1. Data obtained from a breeding herd, owned by the United Fruit Company for the purpose of producing breeding stock for their numerous beef cattle herds. The cooperation of the United Fruit Company in the publishing of this material is appreciated.
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(Nellore and Guzerat breeds). However, the herd also included purebred Red Poll cattle and females of Criollo-Brahman breeding or grade Brahman cattle. (This latter group is referred to as crossbred Brahman cattle). Information was obtained from both young and mature females which were hand-mated to high quality Brahman bulls. Data collected included the length of gestation periods, sex of calves, and their birth weights. Although, the age at puberty, for a small number of females was recorded, the procedure used for the collection of data on this factor is now questionable in view of recent findings on the length of estrus or heat periods in Brahman cattle. Recent reports indicate that Brahman females accept a bull during only a few hours of each heat period.

Breeding was performed on a year around basis. Groups of open or unbred females were brought to designated bulls twice daily for breeding purposes. Usually there were between 15 and 25 females (Brahman plus crossbred and Red Poll cows) per group. The groups were placed in inclosures with a particular bull for one hour in the AM and in the PM. When a bull served a female she was temporarily removed from the group so that the bull would check the other females in his group. After it was ascertained that a female was safe with calf she was placed in a group which was checked once daily for calving. Wet cows were returned to the bull groups shortly after calving for rebreeding.

The average length of 40 gestation periods for purebred Brahman females which parturated during the test period was 292.9 days. They carried male calves for an average of 293.8 days compared to 292.3 days for female calves. Thus, male calves were carried an average of 1.5 days longer than female calves. Male calves weighed an average of 60.9 lbs. at birth compared to 57.2 lbs. for female calves.

Data were recorded for the length of 37 gestation periods of crossbred Brahman females mated to Brahman bulls. Gestation periods averaged 291.5 days for this group. Male calves were born an average of 292.0 days following conception compared to 290.9 days for female calves; a difference of 1.1 days. Average birth weights were 71.0 lbs. for male and 59.9 lbs. for female calves.

A small group of purebred Red Poll cattle, also in this herd, provided limited data. Eight purebred Red Poll calves were carried an average of 282.7 days and their birth weights were the smallest of any breeding group. There were twelve calves out of crossbred Brahman females sired by Red Poll bulls. The average gestation period for this breeding group was 283.8 days. Since the numbers were so small in these two groups, sex differences are not presented.

Although breeding took place the year around, there appeared to be some seasonal effects on conception. The largest percentage of the calves were born during the months of October and November. The months for the smallest calf crops were June and July.

A comparison was made on the age at puberty for two groups of purebred Brahman heifers. Heifers were first exposed to bulls when they were 18 and 19 months of age. A group of 16 Brahman heifers, which were progeny of the local herd, averaged 25 months of age at

the time of first service. Thirty-five Brahman heifers, that had previously been imported from the United States, averaged 23.5 months of age at puberty. This is considerably longer than the 511 day average reported for seven Brahman heifers by Warnick et al (7) but close to the 690 days of age found by De Rowen (8) for Brahman X Sindhi cattle. It is possible that some of the first estrus periods were missed under our system of checking since Brahman cattle do have shorter heat periods than the British breeds of cattle. However, Anderson (9) reported that a majority of the heat periods or a group of Zebu and grade cattle began between the hours of 6 and 9 AM and between 3 and 6 PM. The twice daily check periods employed in our study occurred during these time intervals.

In conclusion, the information obtained from this study showed that purebred Brahman cattle, in this particular herd, carried their calves for an average of almost 293 days. Grade Brahman females mated to purebred Brahman bulls had gestation periods of about 1.5 days shorter than purebred females. Calves out of grade Brahman females sired by Red Poll bulls were carried for approximately 284 days. Purebred Red Poll calves were carried for one day less than this or approximately 10 days less than purebred Brahman calves. Male calves, regardless of breeding, were carried approximately one day longer than female calves and were heavier than females at birth.

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