

FACTORS INFLUENCING THE PRICE PAID FOR HERD SIRES

P.C. VENAMORE*, W.J. TAYLOR* and T.H. RUDDER*

SUMMARY

Stud registration status had the largest and most consistent influence on prices paid for Brahman bulls from three studs at their annual auction sale.

Red bulls from one stud returned higher prices than grey bulls. This tendency was not apparent for bulls from the two other studs.

Amongst herd bull buyers there was a tendency to pay a premium for liveweight of \$9-\$10 per kg increment for bulls offered by two of the three studs.

Prices for bulls offered by one of the studs increased by \$81-\$85 for each percentage point increase in weight for age ratio depending on registration status. Weight for age ratio had no effect on the price paid for bulls from the two other studs.

INTRODUCTION

Traditionally, selection of breeding cattle has been based on breed standards of excellence and this method has been continually reinforced through stud advertising in the rural press. These methods of assessment are based on pedigree, conformation and size, within the colour of the particular breed, with little regard to age and environmental history.

Differences in conformation are due primarily to differences in fat cover and muscle quantity and distribution do not vary markedly over a wide range of cattle with apparently differing conformation (Wythes and Ramsay 1979). Studies have shown that selection for weight for age at 18-24 months can be used to improve productivity (Seifert 1975; Mayer *et al.* 1980). Other researchers have shown within-breed variation in ability to cope with environmental constraints (Seifert 1971, 1977; Turner 1979). These data form a strong case for selection of bulls under environmental conditions that reflect commercial practice, using weight for age as the primary criterion. This approach is being encouraged by extension officers and innovators associated with the beef industry.

This paper reports factors influencing price paid for bulls sold by auction at sales conducted by three studs providing weight for age ratios.

MATERIALS AND METHODS

The bulls used in this study were from three well known Brahman studs. These studs have provided performance ratios at 18 and/or 30 months of age for their past six annual auction sales held at Rockhampton, Qld which is a major selling centre for tropically adapted breeding cattle.

The data were from bulls presented for sale in 1980. Information taken from the sale catalogue included age, weight for age ratio, colour, horn and stud registration status. Prices received were recorded and assessment of temperament, testicle size, and sheath were made by one of the authors (P.C. V.) during the sale. Sale live weight of the bulls was recorded prior to the sale but was not available to purchasers.

* QDPI, Beef Cattle Husbandry Branch, Rockhampton. Qld 4700.

Data were analysed by least squares methods (Harvey 1960) to determine the influence of colour, horn and stud registration status, weight for age ratio and sale weight on price. Because prices were skewed, a log transformation was necessary.

Colour was either grey or red, horn status was horned or polled with scurs categorised as polled. Registration status was categorised into stud registered, pure bred herd bulls, and herd bulls. Pure bred herd bulls were those from a registered stud herd but had not been registered in the breed society records. Herd bulls were straight breed bulls with unknown parentage or only the sire known.

Temperament, testicle size and sheath acceptability were recorded in three categories.

At sale the bulls weighed 692 ± 65 kg standard deviation (59 bulls Stud One), 691 ± 14 kg (61 bulls Stud Two), and 673 ± 59 kg (22 bulls Stud Three).

RESULTS AND DISCUSSION

Preliminary analyses showed there was little variation between bulls in temperament, testicle size, and sheath structure. This was to be expected because bulls that showed any departure from the accepted normality were culled prior to sale.

Two studs presented both horned and polled bulls. There was no difference in price paid according to horn status. This may suggest that buyers put little value on polledness in Brahman bulls.

Age had no significant effect on price. Most bulls were three years old with a few two year and four year old bulls. This suggests that within this range buyers considered other factors to be of overriding importance.

Buyers of bulls from Stud One showed significant ($P < .05$) preference for red bulls over grey bulls (\$4,440 vs. \$3,307). There was no price difference on the basis of colour for bulls from the remaining studs. This is consistent with the presale advertising, e.g. the Brahman News Annual (September 1980). This suggests that a sufficiently large proportion of buyers may be influenced by advertising. They could be prepared to pay for either aesthetic values or purchase in the hope of breeding bulls for future sales on the basis of colour.

Registration status had the highest and most consistent effect on prices. For Stud One the prices of stud registered, pure bred herd bulls, and herd bulls were \$5,359, \$2,769 and \$3,321 ($P < .005$) respectively. For Stud Two the prices were \$4,972 and \$3,220 ($P < .005$) in the same sequence with no herd bulls represented. Stud Three prices were \$3,854 and \$2,445 ($P < .005$) for stud registered and herd bulls. Across the three studs the premium paid for stud registered bulls over the two other categories was approximately \$1,950 per head. Possibly these buyers were paying in the anticipation of breeding registered bulls for sale in the future.

Buyers of bulls from Stud One paid no premium for increases in weight for age ratio or liveweight amongst the stud registered or pure bred herd bulls. Amongst the herd bulls price increased $\$9.24 + 3.08$ (SE) for each kg increase in liveweight ($P < .05$) but there was no effect of weight for age ratio on price.

In the case of Stud Two there was no premium paid for weight for age ratio or liveweight increases for stud registered bulls. Amongst the pure bred herd bulls

there was a premium of $\$9.67 \pm 2.37$ (SE) for each kg increase in liveweight ($P < .005$) but no premium for increments in weight for age ratio.

Stud registered and pure bred herd bulls from Stud Three yielded a premium of $\$80.53 \pm 21.10$ SE ($P < .005$) and $\$84.73 \pm 15.36$ SE ($P < .005$) for each percentage point increment in weight for age ratio. This was the only stud that featured this measurement prominently in advertising (Brahman News Annual September 1980). Additionally this stud co-operated in a field day when weight for age ratio was explained using live exhibits. This occurred approximately six months before the sale.

Seifert *et al.* (1980) described relationships between price and performance in most cases of sales of Belmont Red bulls between 1974 and 1979. The value of performance recording is widely advocated by vendors of Belmont Red bulls involved.

The results obtained in this observation show that traditional selection criteria feature prominently in determining price. They also suggest that advertising influences buyers. If this is the case, adoption of objective selection criteria will depend on equally widespread promotion which includes information showing economic benefits.

ACKNOWLEDGEMENTS

Assistance freely contributed by colleagues is gratefully acknowledged. In particular thanks are due to the three producers who co-operated in this study.

REFERENCES

- HARVEY, W.R. (1960). United States Department of Agriculture, Agricultural Research Service, No. A.R.S. 20-8.
- MAYER, B.G., BARNETT, R.A., HALL, W.J.A. and TAYLOR, W.J. (1980). Qd. Agric. J. 106:362.
- SEIFERT, G.W. (1971). Aust. J. Agric. Res. 22:159.
- SEIFERT, G.W. (1975). Aust. J. Agric. Res. 26:1093.
- SEIFERT, G.W. (1977). 3rd International Congress of the Society of Advancement of Breeding Researches in Asia and Oceania (SABRAO), Canberra, February, 1977. 7-4.
- SEIFERT, G.W., BEAN, K.G. and ASPDEN, W.J. (1980). Proc. Aust. Soc. Anim. Prod. Vol. 13:504.
- TURNER, H.G. (1979). Proc. of the Inaugural Conference of Aust. Assoc. Anim. Breed Genet., Armidale pp 56-59.
- WYTHES, J.R. and RAMSAY, W.R. (1979). Beef Cattle Husbandry Tech. Bull., No. 8, QDPI, 1979 pp 24-26.