

# Relationship between body condition score and body composition in Churra da Terra Quente dairy ewes

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## Objective

The relationship between body condition score and physically dissected body composition was the objective of this study.



## Material and Methods

The relationship between body condition score (BCS) and physically dissected body composition was assessed in 47 non-pregnant and non-lactating Churra da Terra Quente (CTQ) dairy ewes (Figure 1).

BCS was assessed using the methodology proposed by Russel et al. (1969) with a half point interval.

After slaughter, the internal fat depots (kidney knob and channel, omental, and mesenteric fat) were weighed and weights were expressed in grams and in percentage of carcass weight.

Carcass composition was assessed after dissection on bone, muscle and fat depots (subcutaneous and intermuscular fat), which were weighed and weights were expressed in grams and in percentage of carcass weight.

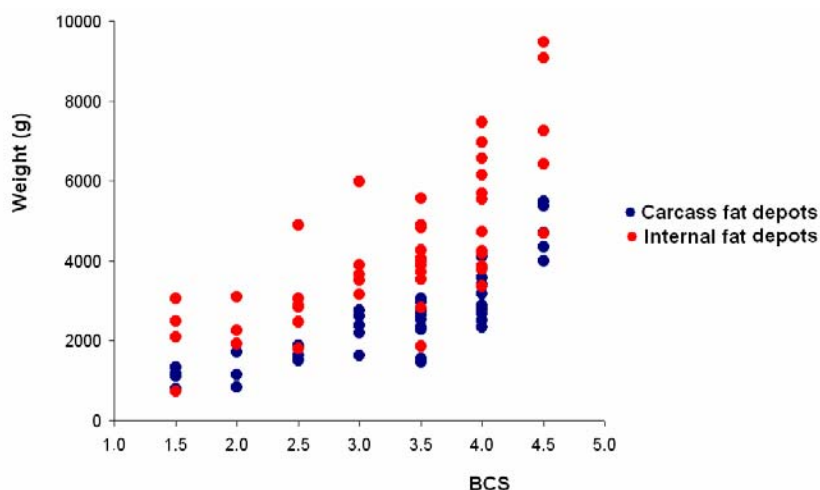


Figure 2. Carcass and internal fat depots variation with BCS.

## Results

Over the range of 1.5 to 5.0, BCS reflects carcass and internal fat depots (Figura 2).

The results show that BCS was positively correlated to the internal fat depots weights ( $r$  varied between 0.528 and 0.788,  $P < 0.01$ ) and to its percentage in carcass ( $r$  varied between 0.207,  $P < 0.05$  and 0.759,  $P < 0.01$ ).

The highest correlation coefficients were observed between carcass fat depots, expressed both in grams and in percentage of carcass weight, and the BCS ( $r$  varied between 0.813 and 0.890,  $P < 0.01$ ).

The BCS was positively correlated with the muscle expressed in grams ( $r = 0.561$ ,  $P < 0.01$ ) but it was negatively correlated with the muscle expressed in percentage of carcass weight ( $r = -0.852$ ,  $P < 0.01$ ).

## Conclusion

On the range of body composition studied the BCS well mirror the body fat reserves of CTQ dairy ewes.

## References

Russel, J. F., Doney, J. M. e Gunn, R. G., 1969. Subjective assessment of body fat in live sheep. *Journal of Agricultural Science, Cambridge*. 72: 451-454.