2010/01

WEIGHT BAND TO ESTIMATE THE LIVE WEIGHT

OF MEAT GOATS

J.F. de Villiers, S.T. Gcumisa & S.A. Gumede – Agriculture Production and Research Services, South Region B.A. Letty – Institute for Natural Resources

The need to know your goat's weight

Income derived from goat production is a major contributor to the livelihoods of rural people. In order to get an income from goats, they need to be managed properly. For good animal husbandry, the measurement of live body weight is absolutely essential for health management, breeding, nutrition and marketing, for example:

- administering the proper dosage of dewormers and other medication and to determine the well being of the goat or the presence of problems
- feeding animals properly
- allowing female animals to be mated at the ideal weight
- selling animals at a specific weight

The importance of knowing the live weight in health management is that incorrect weight estimation may result in over-dosing or under-dosing of animals. Both scenarios can be detrimental to the health of the goat, result in long-term ineffectiveness of remedies and/or wastage of money.

Determining live weight

The use of a properly calibrated livestock scale is the most accurate and consistent method to determine a goat's live weight. However a scale is not a commonly found item on most goat farms. A weight band provides a practical alternative solution to estimate the live

weight of goats for those farmers who are not in the possession of their own weighing scale.

A weight band is a specially marked tape used to measure the heart girth and convert that measurement to a fairly accurate estimate of the goat's live weight. The heart girth measurement represents the circumference around the heart taken just behind the front legs under the body behind the elbow and all the way around to the point behind the shoulder blade.

The weight band, sufficiently accurate to be used on meat goats in all systems and throughout the year, was designed by studying the correlation between live weight (measured in kg) and heart girth (measured in cm) on 1200 indigenous goats, Boer goats and crosses between indigenous and Boer goats belonging to small-scale, emerging and commercial farmers in KwaZulu-Natal, as well as goats from the Cedara Research Station and Owen Sithole College of Agriculture. Goats used in the study included male, female and castrated animals of different ages.

Steps on how to use the weight band correctly:

- 1. Make certain the animal is standing squarely on level ground (Figure 1)
- 2. The goat needs to stand still have someone to hold the goat (Figure 1)



Figure 1: Make certain the animal is standing squarely on level ground, the goat needs to stand still - have someone to hold the goat

- 3. Wrap the weight band directly behind the shoulder blade, down the fore-ribs, under the body behind the elbow and all the way around to the point behind the shoulder blade (Figure 1).
- 4. Overlap the ends of the weight band on top, on the goat's spine (Figure 2)
- 5. Read the resultant weight measurement off the weight band in kg (Figure 2)



Figure 2: Overlap the ends of the weight band on top, on the goat's spine and read the resultant weight measurement off the weight band.

Conclusion

The weight band is a simple and practical tool for goat farmers without access to a scale to estimate the live weight of their goats. This will assist them to execute good animal husbandry practices, such as determining the correct dosage rate according to weight.

Acknowledgements

S de Vos, Cedara College, for the drawings Thank you to farmers for allowing us to use their goats.

For more detail, read article:

De Villiers, J.F., Gcumisa, S.T., Gumede, S.A., Thusi, S.P., Dugmore, T.J., Cole, M., Du Toit, J.F., Vatta, A.F. & Stevens, C. 2009. Estimation of live body weight from the heart girth measurement in KwaZulu-Natal goats. *Appl. Anim. Husb. Rural Develop*, Vol 1, 1 – 8: www.sasas.co.za/aahrd/

For further information contact:

Hannes de Villiers on Tel: 033 3438350 or email Hannes.devilliers@kzndae.gov.za

Sibongiseni Gcumisa on Tel 033 3438345 or e-mail Sbongiseni.Gcumisa@kzndae.gov.za

Sibusiso Gumede on Tel: 033 3438347 or e-mail Sibusiso.Gumede@kzndae.gov.za