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Estimating Horse Weight Accurately.

by: **Casie Bazay, BS, NBCAAM** (http://www.thehorse.com/Bio.aspx?ID=724)
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Weight tapes, formulas, or simply "eyeing it" are among the average horse owner's options for estimating their horse's weight on the farm. Clearly, guessing weight by eyeing a horse is a bit like a carnival game, but Auburn University researchers recently examined three methods and found out one stood out as a more accurate approach.

"Knowing the body weight of a horse is important in many facets of horse care, including designing feeding programs and administering medication," reported the study authors, Elizabeth Wagner, PhD, assistant professor in the Department of Animal Science, and Patricia Tyler, MS, research associate in the Department of Animal Science. "However, horse owners and veterinarians working in the field generally do not have access to a livestock scale for the purpose of obtaining a horse's weight."

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Congratulations to Sarah Butler and Jester!

Congratulations to Sarah Butler and Jester for doing so well at the Land Rover Discovery KZN Championships and also on their selection for the Adult Gauteng 90cm Eventing team.

Equus Horse Feeds is proud be involved in Jester's feeding programme!

In the current study, which was funded by the Alabama Horse Council, the researchers weighed 145 adult horses of varying breeds and body types on a portable livestock scale to determine their actual weight before these animals' weights were estimated using three commonly used methods:

- A commercially available weight tape (following the directions that came with the tape);
- Using the estimation formula: (kg)=(heartgirth^2 x body length) / (11,880 cm^3) with length defined as "measuring from the point of shoulder to the point of buttock" (termed the "point measurement"); and
- Using the same estimation formula listed above, this time with length being defined as "measuring from the point of shoulder to the widest point of the stifle and tail when viewed from the rear" (termed the "stifle measurement").

Upon reviewing their data, the team found that while all three of the methods used underestimated the horses' body weights, one method had a smaller margin of error than the other two. Key findings included:

- The point measurement gave the most accurate estimates, underestimating weights by an average of 17.25 kg, or approximately 38 lbs; and
- The commercial weight tape gave the most inaccurate estimates, underestimating weights by an average of 65.81 kg, or approximately 145 lbs.

Want to determine your horse's weight? Learn how with our **video tutorial and Horse Weight Calculator at http://www.thehorse.com/Tool/Weight-Calculator.aspx?src=in**.

The authors noted that there are many weight tapes available on the market. Most brands use different measurement systems for estimating weight and, thus, will render slightly different results.

"How each company designs and validates their particular formula is proprietary information and not available through the scientific literature," they noted.

The researchers concluded, "No method is perfect, but when a scale is unavailable for determining a horse's weight, the formula, where estimated weight (kg)=(heartgirth^2 x body length) / (11,880 cm^3), appears to be the best choice for estimating body weight."

The study, "A Comparison of Weight Estimation Methods in Adult Horses," has been accepted for publication in *The Journal of Equine Veterinary Science*.