



Condition scoring and weight estimation of horses

September, 2000

AG0928

ISSN 1329-8062

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How can I monitor the body condition of my horse?

How can I estimate my horse's weight?

Body condition scoring is used extensively as an aid to management of sheep and cattle. Research in horses has shown that condition scoring provides a useful and objective method of monitoring body condition. Body condition (fatness) is the most reliable indicator of the suitability of a horse's diet.

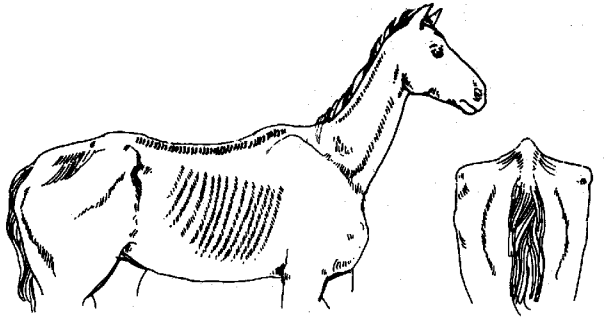
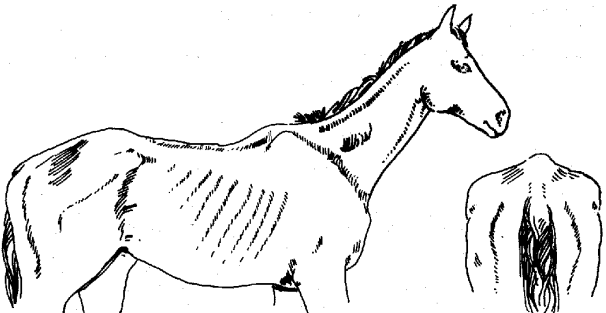
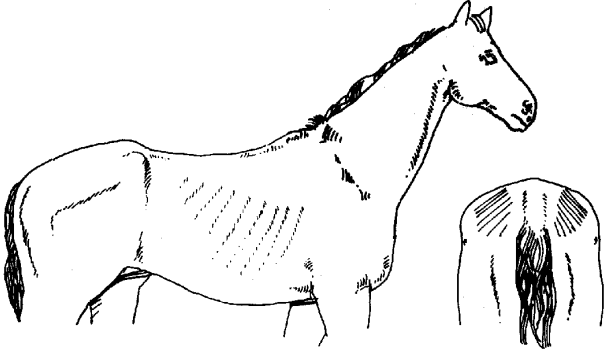
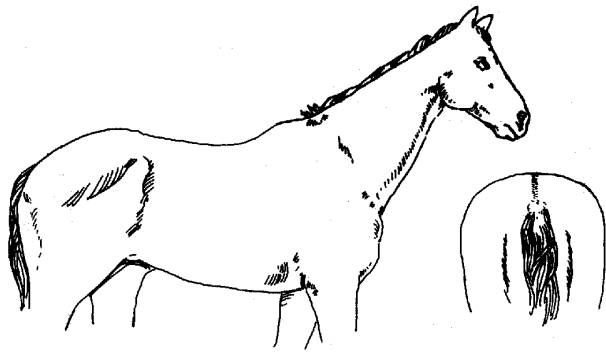
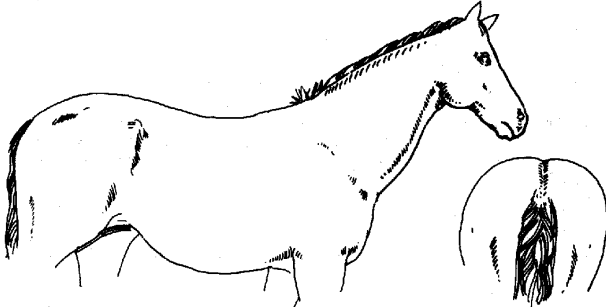
Accurate estimation of a horse's bodyweight is an art that requires a lot of experience. Weight estimation is necessary for assessing feed requirements and for determining the correct dosage of worm treatments and other drugs.

Methods of estimation

1. Assess visually and by feel, the horse's pelvis and rump, back and ribs and neck (table 1).
2. Give those areas individual scores using a scale of 0 (very poor) to 5 (very fat).
3. Intermediate assessments can be given half scores.
4. Using the pelvic and rump assessment as the base, adjust that score by a half point if it differs by one or more points from the score for the neck or ribs.
5. Height measurement should be performed on level ground when the horse is relaxed and standing squarely. Use the highest point of the withers as the measuring site. Allowance should be made for shoes.

Table 1. Body condition scoring system

Score	Neck	Back and ribs	Pelvis
0 Very poor	Marked ewe neck. Narrow and slack at base.	Skin tight over ribs. Spinous processes sharp and easily seen.	Angular pelvis - skin tight. Deep cavity under tail and either side of croup.
1 Poor	Ewe neck. Narrow and slack at base.	Ribs easily visible. Skin sunken either side of Backbone. Spinous processes well defined	Rump sunken, but skin supple. Pelvis and croup well defined Deep depression under tail.
2 Moderate	Narrow but firm	Ribs just visible Backbone well covered Spinous processes felt	Rump flat either side of backbone. Croup well defined, some fat. Slight cavity undertail
3 Good	No crest (except stallions) Firm neck	Ribs just covered No gutter along the back. Spinous processes covered but can be felt	Covered by fat and rounded. No gutter. Pelvis easily felt
4 Fat	Slight crest	Ribs well covered – need firm pressure to feel Gutter along backbone.	Gutter to root of tail. Pelvis covered by soft fat – felt only with firm pressure
5 Very fat	Marked crest Very wide and firm. Folds of fat.	Ribs buried - cannot feel. Deep gutter Back broad and flat.	Deep gutter to root of tail. Skin distended. Pelvis buried – cannot feel

<p>0 Very poor</p>		<ul style="list-style-type: none"> • Very sunken rump • Deep cavity under tail • Skin tight over bones • Very prominent backbone and pelvis • Marked ewe neck
<p>1 Poor</p>		<ul style="list-style-type: none"> • Sunken rump • Cavity under tail • Ribs easily visible • Prominent backbone and croup • Ewe neck - narrow and slack
<p>2 Moderate</p>		<ul style="list-style-type: none"> • Flat rump either side of backbone • Ribs just visible • Narrow but firm neck • Backbone well covered
<p>3 Good</p>		<ul style="list-style-type: none"> • Rounded rump • Ribs just covered but easily felt • No crest, firm neck •
<p>4 Fat</p>		<ul style="list-style-type: none"> • Rump well rounded • Gutter along back • Ribs and pelvis hard to feel • Slight crest

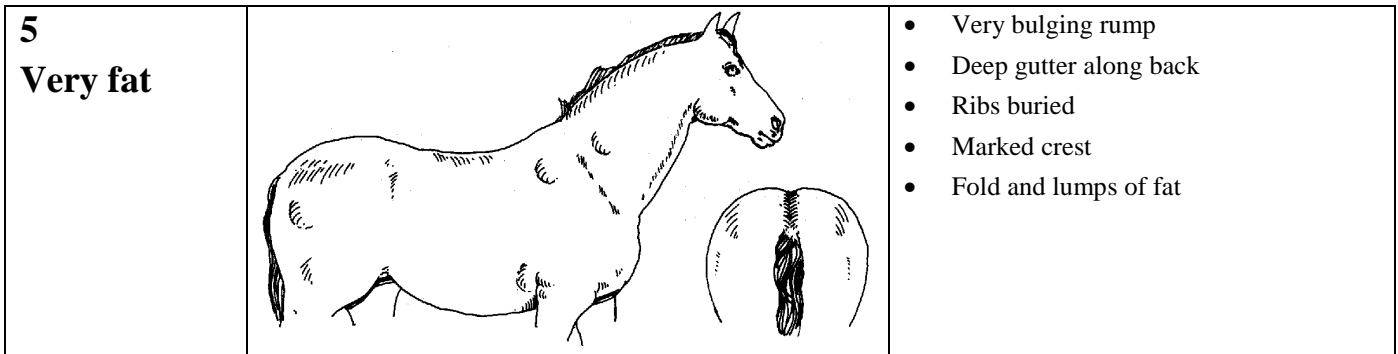


Figure 1. Condition scores

The horse's weight can then be predicted from the height (in hands) and condition score (table 2). More accurate estimation can be achieved by the use of a nomogram (figure 4).

Table 2. Prediction of weight utilising height and condition score

Condition score	Height (hands)				
	12H	13H	14H	15H	16H
	Weight (kg)				
1	190	240	310	390	420
2	210	285	330	420	470
3	250	345	395	460	505
4	300	370	460	535	570
5	360	460	540	610	670

1 hand = 10.2 cm (4 inches)

Table 3. Typical body score conditions of various classes of horses

Endurance horses	1.5 – 2.5
Polo ponies	2.0 – 2.5
Standardbred racehorses	2.0 – 3.0
Thoroughbred racehorses	2.5 – 4.0
Equestrian horses	3.0 – 4.0
Show horses	>4.0
Broodmares	2.5 – 4.0

Allowing body condition to fall below a score of 1.5 is likely to compromise a horse's welfare.

During winter, a long heavy hair coat complicates visual appraisal. You need to run your hands over the horse to get an accurate score.

Poor body condition is not always due to lack of feed but could be related to parasite infestations, poor dental health, chronic injury or illness or lack of mobility affecting the horse's ability to forage.



Figure 2. A horse in very poor condition. Note prominence of spine pelvis and ribs, lack of musculature and tightness of skin over bones.



Figure 3. Another horse in very poor condition. Note the marked ewe neck.

A ruler is used to connect the appropriate values on the condition score and height scales, and the weight is read where it intersects the weight scale.

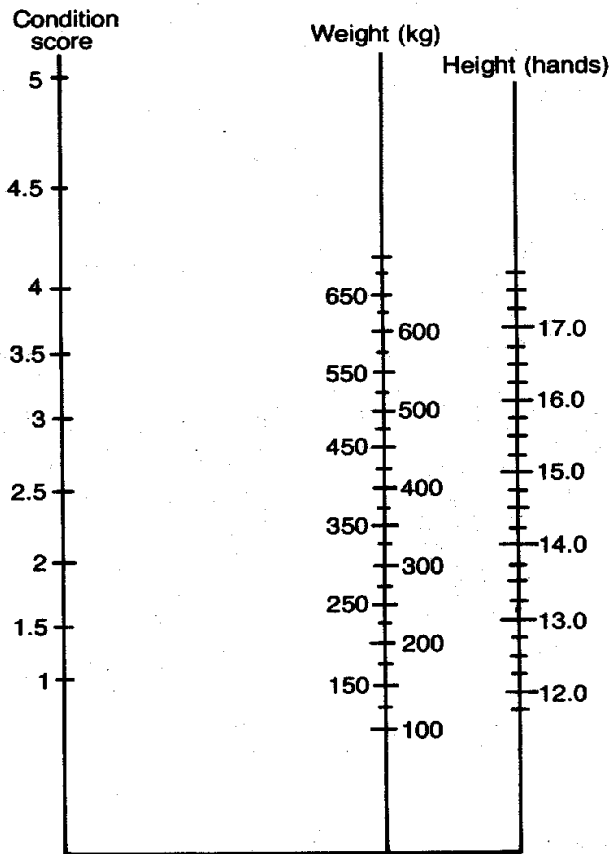


Figure 4. Nomogram for estimation of liveweight from condition score and height measurement.

Alternatively the weight can be calculated from the girth and length, using the formula:

$$\text{weight (kg)} = \frac{G^2(\text{cm}) \times L(\text{cm})}{12000}$$

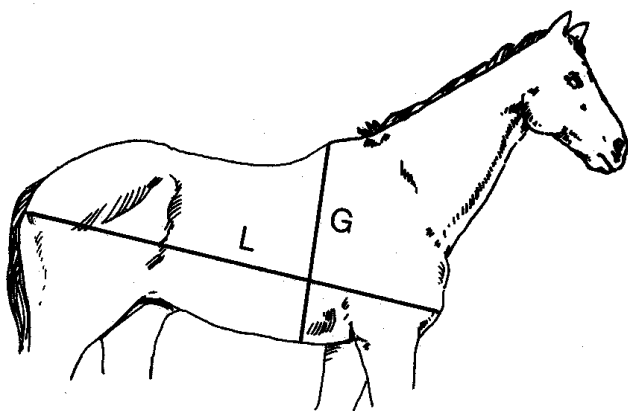


Figure 5. Measurement of girth and length

Another method of weight estimation uses girth and length. These measurements (in cm) can be used with the nomogram (figure 6) to estimate weight.

A ruler is used to connect the appropriate values on the girth and length scales, and the weight is read where it intersects the weight scale.

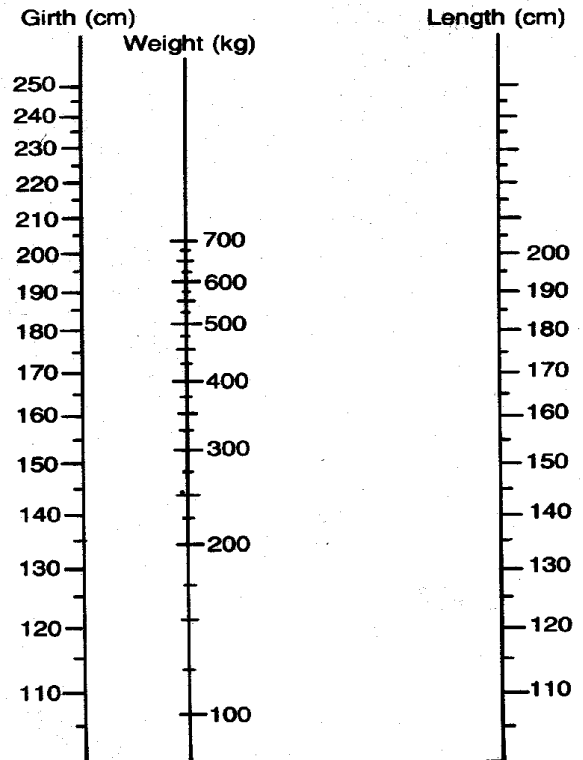


Figure 6. Nomogram for estimation of liveweight from girth and length measurements.

Reference

Carroll, C.L. and Huntington, P.J. (1988) Body condition scoring and weight estimation of horses *Equine Veterinary Journal* 20, 41-45.

Further information

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