

## AN OWNER'S GUIDE TO CALCULATING EQUINE WEIGHT & CONDITION

It is good practice to evaluate your horse's weight and condition on a fortnightly or monthly basis. If you see your horse every day it can be easy to miss subtle changes, therefore, using methods to objectively assess them is useful.

It is particularly important to know the weight of your horse for administering the correct dose of supplements, medication and wormer and it can also be used to calculate feed rations.

### Know Your Horse's Weight

A weigh bridge provides the most accurate assessment of your horse's weight but in the absence of access to one of these you can estimate their weight at home. Weigh tapes are readily available and are a valuable tool in assessing if your horse's weight is fluctuating. However, depending on the breed of your horse, they are not hugely accurate at determining their actual body weight. A more accurate formula to use is detailed below. All you need is a measuring tape that has cm on it and a calculator.

#### Body Weight Formula:

$$\text{Body weight (kg)} = \frac{\text{heart girth (cm)} \times \text{heart girth (cm)} \times \text{length (cm)}}{11877}$$

11877

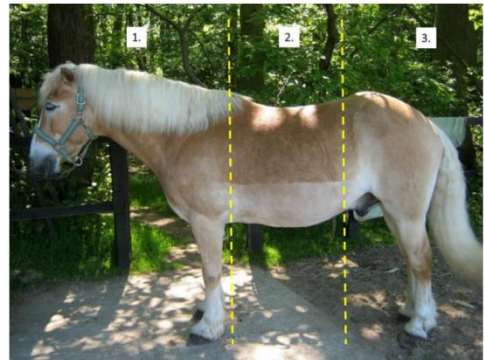
(If your horse has a body condition score (BCS) of  $\leq 2.5$  use 12265 instead of 11877 or if the BCS is  $\geq 3$  use 11706 – see Body Condition Scoring below)



## Body Condition Scoring

As well as knowing what weight your horse is it is important to understand their body condition score. You need to get hands on and learn to tell the difference between fat and muscle.

Your horse should be standing square, on a level surface before you begin. The best method is to split your horse into 3 sections and score each individually using a scale of 0 (emaciated) to 5 (obese). Add up the scores then divide by 3 to get the average for your horse.



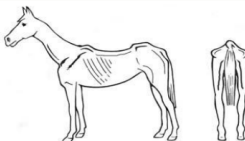
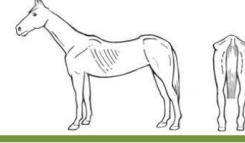
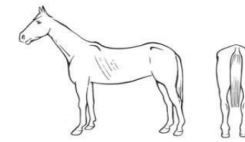
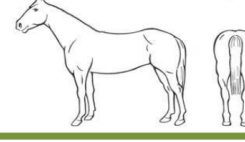
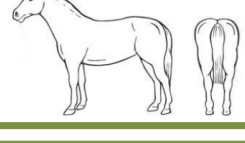

0		<p>Marked 'ewe' neck, narrow and slack at base. Skin tight over the ribs, which are clearly visible. Spinous processes sharp and easily seen. Angular pelvis, skin tight, very sunken rump. Deep cavity under tail and either side of croup.</p>
1		<p>'Ewe' neck, narrow and slack at base. Ribs clearly visible. Skin clearly shrunken either side of spine. Spinous processes well defined. Rump sunken but skin supple, pelvis and croup well defined, cavity under tail.</p>
2		<p>Neck narrow but firm, shoulder blade clearly defined. Ribs just visible. Spine well covered. Spinous processes felt but not seen. Rump flat either side of spine, croup well defined, some fat, slight cavity under tail.</p>
3		<p>Firm neck, no crest (except stallions), shoulder blades defined. Ribs just covered, easily felt. No gutter along back. Spinous processes covered, but can be felt. Pelvis covered by fat and rounded, no gutter, pelvis easily felt.</p>
4		<p>Slight crest on neck, wide and firm. Ribs well covered. Gutter along spine to root of tail. Fat stored either side of the spine to form slight 'apple bottom', with a gutter down the middle. Pelvis covered, felt only with firm pressure.</p>
5		<p>Marked crest, very wide and firm, creases of fat. Shoulder blade buried and difficult to feel. Ribs buried, cannot be felt. Deep gutter along spine, back broad and flat. Deep gutter to root of tail, producing marked 'apple bottom', skin distended. Pelvis buried, cannot be felt.</p>

Image obtained from [http://www.aht.org.uk/skins/Default/pdfs/cal\\_bcs.pdf](http://www.aht.org.uk/skins/Default/pdfs/cal_bcs.pdf)

## How to Calculate Your Horse's Appetite

A horse should consume approximately 2.0% of their body weight (BW) daily but this can vary depending on their condition. If your horse is overweight it can be reduced to 1.5% (never drop below 1.0%) or if underweight it can be increased to 2.5 / 3.0%.

Use the formula above to estimate body weight; then use the formula below to work out appetite:

$$\text{Appetite (kg)} = 2.0\% \text{ BW} = 0.02 \times \text{BW (kg)}$$

So for:

- A 450kg horse in good condition: Appetite = 2% BW =  $0.02 \times 450 = 9.0\text{kg}$  / day.
- A 450kg underweight horse: Appetite = 2.5% BW =  $0.025 \times 450 = 11.25\text{kg}$  / day.
- A 450kg overweight horse: Appetite = 1.5% BW =  $0.015 \times 450 = 6.75\text{kg}$  / day.

## Ration Calculation

Ration calculation can be very complex if you want to work out exact energy requirements as each feed has a different energy level (calculated in MJ). To save you spending hours working out ration calculations yourself it is worth calling feed companies who will often provide the service for free. Simple weight calculations can be useful though and it is easy to work these out yourself.

The appetite calculation above gives the approximate weight of your horse's total intake for the day, which includes both forage (grass, hay, haylage) and concentrates (hard feed / anything other than forage). The average horse in light to moderate work should be provided with at least 70% forage. So for a 450kg horse eating 2.0% BW daily in the form of 70% forage:30% concentrates this would be 6.3kg of forage (70% of 9kg) and 2.3kg of concentrate feed (30% of 9kg).

Generally as workload increases so can the percentage of concentrates in the ration and vice versa.

As a rough estimation:

- 1 big round 'stubbs' feed scoop = 1.0kg of mix, 1.5kg of cubes or 200g of chaff.

It is best to weigh your own hay using spring scales as there is a huge variation in weight between bales / sections. It is very difficult to calculate how much grass a horse is consuming (it is often a lot more than you think!) so if your horse is overweight it is best to restrict grazing using a grazing muzzle or take them off grass entirely so you can calculate exactly how much food they are getting.



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Remember that every horse is an individual and should be treated as such. There is not a 'one size fits all' in terms of feeding and it is often a case of trial and error to find the correct regime for your horse.

### **Horse Workload**

Many people overestimate the workload of their horses, which often results in overfeeding. This can not only lead to weight gain but also behavioural issues and physiological problems. The following examples should give you an idea of the current workload of your horse:

- Maintenance – Grass or stable kept. Not in any work / retired.
- Light Work – Hacking, schooling, riding club competitions once a week.
- Medium Work – Affiliated competitions at medium level, hunting once a week, endurance up to 50 miles.
- Hard Work – affiliated competitions at high level, endurance 50 – 75 miles, hunting twice a week.
- Very Hard Work – three-day eventing, polo, racing, 75+ miles endurance rides, carriage driving.