

BODY CONDITION SCORING

NUTRITIONAL BACKGROUND

Knowing a horse's bodyweight is useful for calculating their nutrient requirements, however, since there are currently no defined methods for calculating the 'correct' weight for a particular horse, bodyweight is of little use in assessing the current physical status of an animal ie. whether the horse IS over or underweight. For this reason, monitoring condition may be considered a more useful tool as it can give an immediate indication of the current physical state of an animal, which is more practically useful for the management of feeding and exercise regimes.

A visual assessment of a horse's body condition takes into account the amounts of body fat which are present and the level of muscle tone and development overall. The body stores excess dietary calories as fat, whilst dietary protein supplies amino acids which are the building blocks of muscle and other body tissues. Assessing the amount of fat the horse is carrying can give us a good indication of how well its calorie requirements are being met.

Assessing the top line and musculature also gives an indication of the protein content of the diet. Too little, or protein of insufficient quality, can mean that muscle and body tissues remain underdeveloped which could compromise the horse as its workload increases and it progresses through the grades. The horse's genetics dictate the numbers and types of muscle fibres in the body, which may be seen as a more rounded, "muscly" stamp of horse, or a leaner one, for example. We cannot change the horse's genetic make-up through diet but we can help optimise what genetics provide.



→ poor

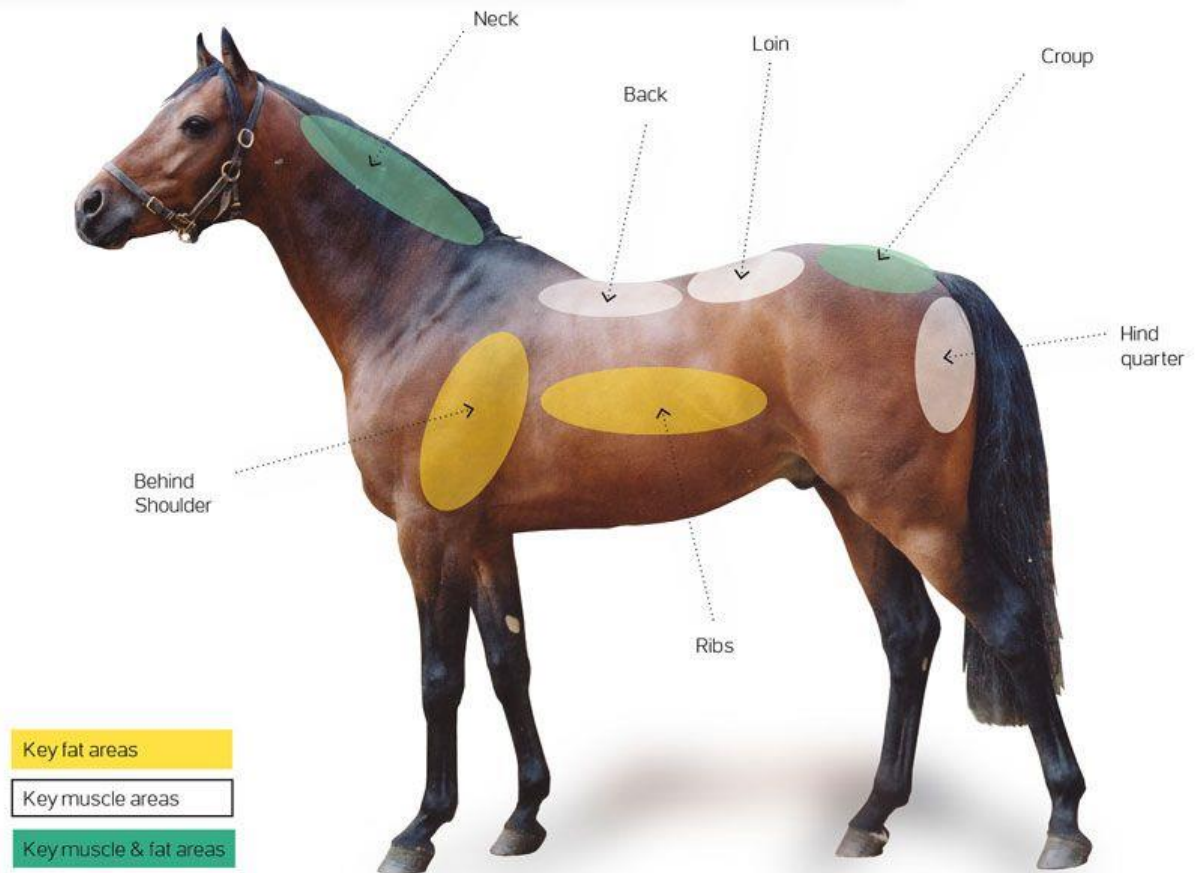


→ moderate



→ fat

TOP LINE ASSESSMENT



As a guide, a Top Line Assessment of Good to Excellent indicates that the horse's diet is supplying sufficient or optimum levels of good quality protein, whilst an assessment of Adequate to Poor indicates that the diet is supplying insufficient levels of quality protein to meet minimum requirements.

A strong healthy musculature and top line are essential if a horse is to perform to the best of his ability and can only be built by correct training if the diet supplies the necessary range of amino acids from good quality protein. Ensuring a horse's dietary protein requirements are met at all times will help maintain top line and muscle tone, even during lay-off periods.

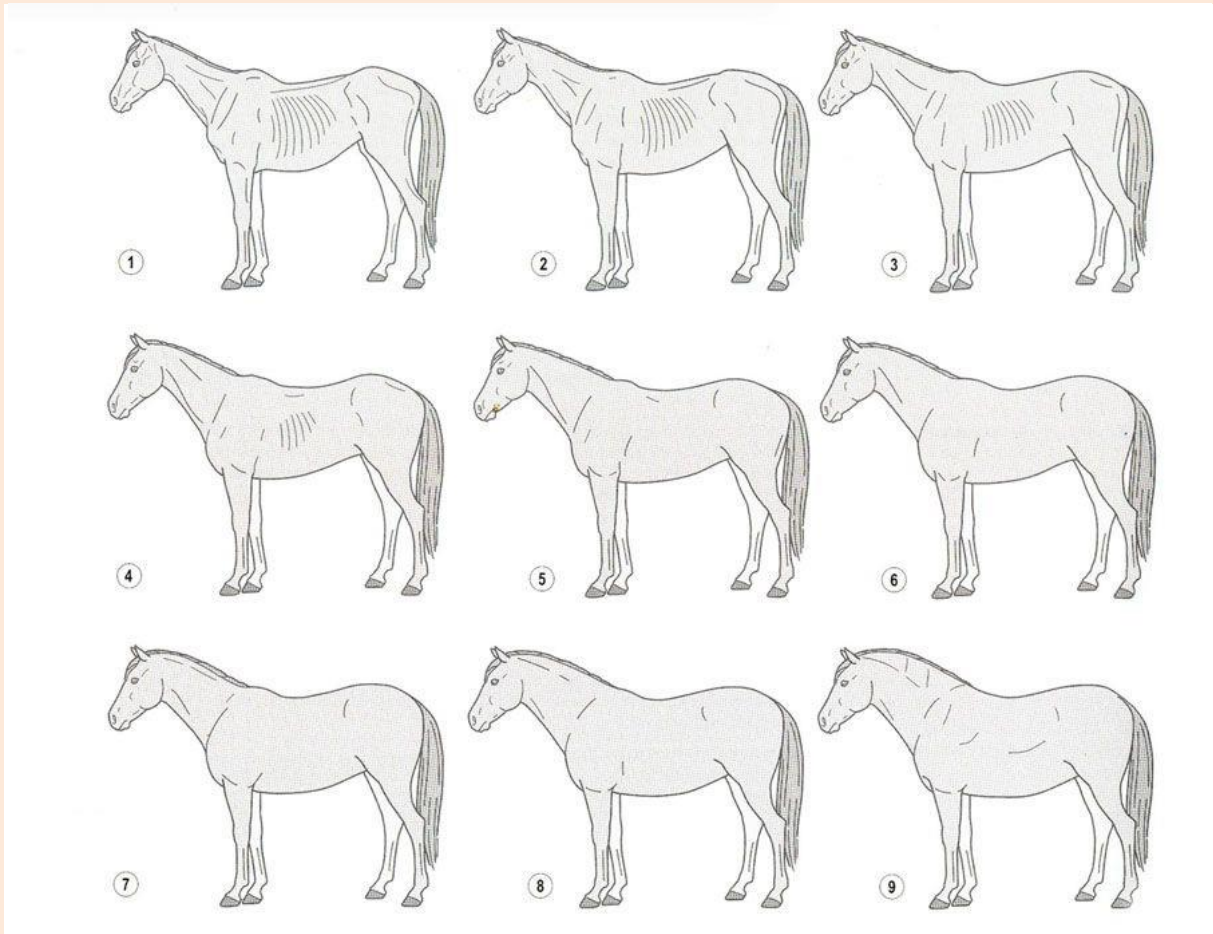


Grade	Visual Description
Excellent Diet providing optimum levels of quality protein	<ul style="list-style-type: none"> • This horse has ideal muscle development for its body type. • The neck has a smooth or convex top line and blends smoothly into the shoulder and withers. • Muscle is full each side of the withers and along the spinal column so that the vertebrae cannot be seen. • The hip is full and the stifle muscles are defined. • There is no hollowness between the hip and stifle.
Good Diet providing sufficient levels of quality protein	<ul style="list-style-type: none"> • This horse is adequately muscled although there are some areas of inadequacy. • The neck has a straight top line and there is some hollowing where the neck meets the shoulder. • There is hollowing each side of the withers and along the back. • The hip to stifle area is flatter.
Adequate Diet may not be meeting horse's minimum protein requirements	<ul style="list-style-type: none"> • The neck has a straight or concave top line and is weak. • Muscle each side of the withers are sunken. • Back and loin areas appear bony. • Vertebrae will be higher than the muscles beside them. • Muscling over the hip and hindquarter is adequate. • The hip to stifle area is weak.
Poor Diet not meeting horse's minimum protein	<ul style="list-style-type: none"> • The neck has a concave top line and is hollowed. • Poor concave muscling over the entire topline from withers to tail. • The hip bones and the top of the vertebrae on the croup are pointed and the muscles between are sunken in. • The width of the stifles is narrower than that of the hips.

GIVE YOUR HORSE A BODY CONDITION SCORE

This Body Condition Scoring system is based on the American 1 – 9 system (adapted from Henneke et al 1983) which gives the assessor greater flexibility and detail for the score given. The neck, ribs and rump need to be looked at and felt in order to assess the horse's overall condition and level of body fat which provides an indication of the calorie intake of the horse in question.

As a guide, a Body Condition Score of less than 4 would indicate that the horse's minimum calorie requirements are not being met by its diet, whilst one of more than 6 would indicate that its diet is supplying more calories than the horse requires.



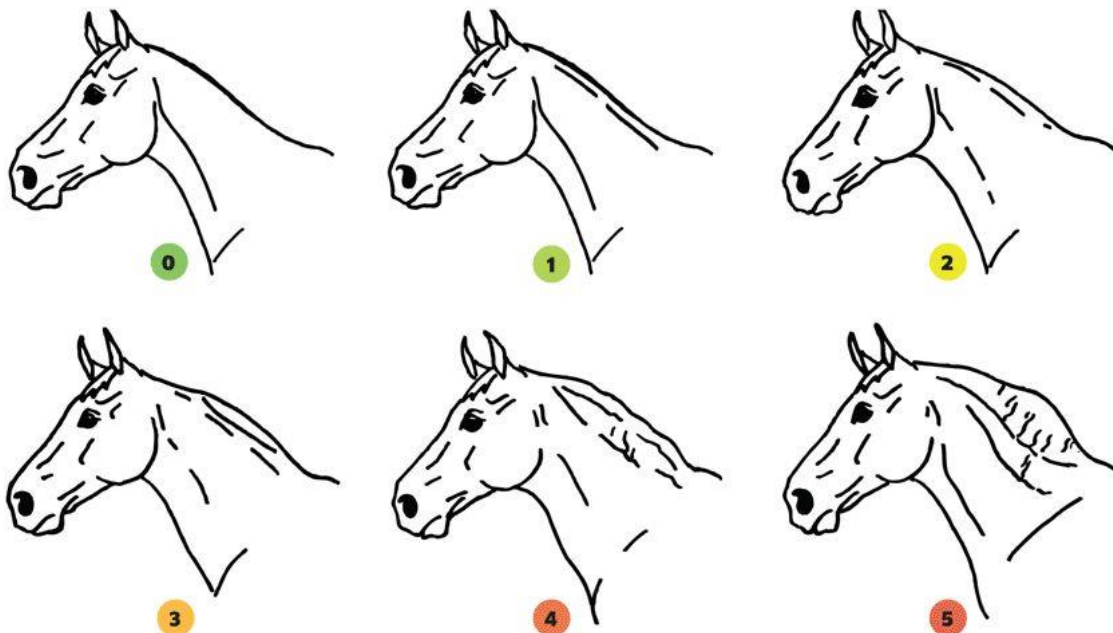
	CONDITION	NECK	WITHERS	BEHIND SHOULDER	RIBS	TOP LINE	TAILHEAD
1	POOR	Bone structure easily noticeable	Bone structure easily noticeable	Bone structure easily noticeable	Ribs protruding prominently	Spinous processes projecting prominently	Tailhead, lower pelvic bones, and hip joints projecting prominently
2	VERY THIN	Bone structure faintly discernible	Bone structure faintly discernible	Bone structure faintly discernible	Ribs prominent	Slight fat covering over base of spinous processes	Tailhead prominent
3	THIN	Neck accentuated	Withers accentuated	Shoulder accentuated	Slight fat over ribs. Ribs easily discernible	Fat buildup halfway on spinous processes, but easily discernible.	Tailhead prominent but individual vertebrae not visible. Hip joints appear rounded, but are still easily discernible.
4	MODERATELY THIN	Neck not obviously thin	Withers not obviously thin	Shoulder not obviously thin	Faint outline of ribs discernible	Peaked appearance along back	Prominence depends on conformation. Fat can be felt. Hip joints not discernible
5	MODERATE	Neck blends smoothly into body	Withers rounded over spinous processes	Shoulder blends smoothly into body	Ribs not visible but easily felt	Back is level	Fat around tailhead beginning to feel soft
6	MODERATELY FAT	Fat beginning to be deposited	Fat beginning to be deposited	Fat beginning to be deposited	Fat over ribs feels spongy	May have a slight groove down back	Fat around tailhead feels soft
7	FLESHY	Fat deposited along neck	Fat deposited along withers	Fat deposited behind shoulder	Individual ribs can be felt with pressure, but noticeable fat filling between ribs	May have crease down the back	Fat around tailhead is soft
8	FAT	Noticeable thickening of neck	Area along withers filled with fat	Area behind shoulder filled in flush with body	Difficult to feel ribs	Positive crease down the back	Fat around tailhead very soft
9	EXTREMELY FAT	Bulging fat	Bulging fat	Bulging fat	Patchy fat appearing over ribs	Obvious crease down the back	Bulging fat around tailhead

CRESTY NECK SCORING

In humans, increased fat around the abdomen is more closely linked to metabolic disease than overall body fat. This also seems to be the case for horses, while excess fat across the neck is also associated with increased circulating insulin and insulin resistance, which may increase the risk of problems such as Equine Metabolic Syndrome (EMS) and laminitis.

For this reason, a standardised Cresty Neck Score (CNS) has been developed for objective assessment of the neck and fat deposits that are laid down here. It's important to distinguish between a well-developed top line/muscly neck and one which is carrying fat so it's important not only to stand back and look at the horse but also to feel and palpate the thickness and fatty deposits.

Cresty Neck Scores correlate with BCS scores of 4/5 and above so a CNS of 0 represents the neck of a horse with a BCS of 5 (Moderate). A CNS of 3 out of 5, or higher, has been found to be associated with an increased risk of laminitis. It is therefore important to monitor CNS on a regular basis, particularly in UK Native breeds that may be at a greater risk of developing a cresty neck than lighter breeds such as Thoroughbreds.





0	There is no visible or palpable crest
1	No visual crest present but slight filling on palpation
2	A crest can be seen but fat is deposited fairly evenly from the poll to the withers. Crest can be easily cupped in one hand and is flexible to move from side to side.
3	The crest is thick with fat deposited more heavily in the centre of the neck rather than the poll and wither. It is enlarged and fills a cupped hand and is not so easily bent from side to side.
4	Grossly enlarged crest which is thickened and may have creases up through the top line. It can no longer be cupped in one hand or bent easily from side to side.
5	The crest is so large it permanently droops to one side.

USING YOUR HORSE'S BODY CONDITION, TOP LINE AND CRESTY NECK SCORES

Having evaluated your horse's Top Line, Body Condition and Cresty Neck Scores, you will have a good idea of where your horse deposits fat and builds muscle, which will help identify areas for weight gain, loss or top line development. It is, however, important to remember that it is difficult to focus weight loss or gain in a particular region of the body and all horses are individuals – just like people!

Key considerations that may influence the horse's natural body shape include:

- Breeding status – Stallions, or geldings who have been cut late, may be cresty, due to elevated testosterone levels, but are not fat
- Workload – A horse that is at rest or light work may not have an excellent top line but can still be in good condition (ie. not too fat or too thin). They may also have a distended belly due to lack of appropriate work and/or through consuming high levels of indigestible forage eg. "hay belly".
- Underlying clinical issues – Horses with EMS or insulin resistance may have a cresty neck which is more difficult to lose

DIETARY IMPLICATIONS

You will now also have an indication of any shortfalls, or excesses, in the diet which you can address accordingly. Make sure your chosen feed is formulated for your horse's workload and feed according to recommendations. If you have any questions about adjusting your horse's diet, for whatever reason, contact Anita at 0408 920707) or anita@fibregenix.com.au