# Scoring A 'Cresty' Neck By Dr John Kohnke BVSc RDA



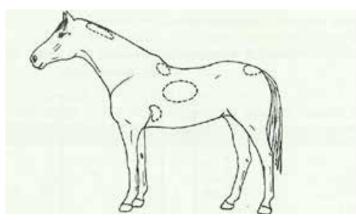
A dequate reserves of fat provide an important energy source, insulate the body against cold weather and internally protect the organs in the abdominal cavity during exercise. However, increased fat storage in regional areas can indicate an excess intake of energy or the onset of Equine Metabolic Syndrome (EMS) in middle-aged horses and ponies with developing Insulin Resistance (IR) or Type 2 diabetes.

The standard Body Condition Scoring System (BCS) includes an assessment of the fat depositions over the rump, top-line, ribs and shoulders, but in 'cresty' ponies and horses with underlying EMS, scoring the relative amount and firmness of fat storage on the neck under the mane (crest) as a separate Cresty Neck Score (CNS) is a useful and practical way of evaluating the risk of an impending episode of IR-induced laminitis and founder.

### **Regional Fat Depositions**

Horses have a set progression of fat storage areas on their bodies as they gain condition. The diagram below illustrates the common areas of regional fat distribution. Horses initially deposit fat within the muscles, between the muscles and under the skin as they gain condition, initially around the girth area, then the tail-butt, then behind the elbow and withers, then the sheath in males or udder in mares and finally the 'crest' area under the mane on the neck. Abnormal distribution in the hollow area (supraorbital fossa) above the eyeballs often indicates metabolic fat accumulation resulting from PPID Cushing's Disease.

#### Sites of Subcutaneous Fat Distribution Used when Evaluating a Horse's Body Condition



Source: Kohnke et al (1999) Feeding Horses in Australia RIRDC Page 8

#### Recommendations for use of Kohnke's Own® Trim®

**Trim®** contains a selected and widely researched range of nutrients which have a role in normalising blood sugar levels, insulin activity and facilitating the metabolism of excess fat storage in horses and ponies on a low GI diet. In addition to soaking hay to reduce soluble sugars, restricting daytime grazing, offering a low GI feed and confining the 'cresty' pony or horse to a yard with soaked hay overnight, short courses of Trim® will support the metabolic reduction of excess fat and obesity.

Commence on Trim<sup>®</sup> twice daily at recommended standard Daily supplement rate (ie double doses) for 7-10 days, monitoring crest firmness daily, combined with low GI feed, soaking hay and restricted access to pasture.

Once crest fat softens, reduce Trim<sup>®</sup> to once daily and continue for 7-10 days, monitoring the CNS every 2 days. When the crest becomes soft or reduced in size, Trim<sup>®</sup> may be discontinued.

Monitor the firmness of the crest on alternative days and reintroduce Trim® in the short course program as recommended above, if the crest or tail-butt area becomes firm and filled with fat stores.

More dosing guidelines can be provided by contacting info@kohnkeown.com or free call for advice on 1800 112 227.



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## 'Cresty' Neck Scoring Method (CNS)

The firmness and relative amount of fat depositions in the muscle structure and subcutaneous layers of the 'crest' area of the neck is a practical method to help determine the relative risk of onset of laminitis in EMS and IR affected horses and ponies. This scoring system was first introduced in 2009 by Dr Carter and colleagues in the USA to provide a practical means of assessing the risk of health problems in animals which may not be overly fat or obese.

Score	Diagram	Size and Firmness Description	Management
0		No visual appearance of crest directly under the mane blending into the neck. Firm muscle tissue with no deposits of fat.	Normal diet for retired and exercising horses. However, in any pony or horse with risk of EMS, regular monitoring of the crest size and firmness and relative energy intake from pasture should be carried out to avoid excess weight gain.
1		No visual appearance of a crest, but slight filling felt when the neck ridge under the mane is squeezed to check firmness.	Maintain regular exercise and ensure diet is not high in soluble sugar feeds including high producing pasture in mid to late spring or grass hay in 'good doing' horse and ponies.
2		Visual form of a crest, but fat is deposited fairly evenly from poll to withers. Crest is easily grasped in one hand and bent from side to side, feeling pliable and soft	Press 'cresty' area and tail-butt to evaluate firmness and even fat distribution. If tail-butt region is starting to develop hard, lumpy fat deposits, refer to CNS # 3 for dietary management.
3		Crest is bulging and thickened, with more fat being deposited in the middle of the neck, reducing towards the head and wither. Central crest fills the grasp with fingers and thumb and has reduced side to side movement.	If animal is a 'good doer' and out 24/7, restrict to 2 hours morning and evening grazing, confine to yard or stable overnight with 50% of hay soaked and feed a low GI feed. Increase daily exercise to metabolise fat for energy.
4		Crest is full under mane, hard and can no longer be grasped in one hand. It is firm and not easily flexed from side to side. Crest may have horizontal wrinkles/creases of fat along its formation.	Press crest area and tail-butt; firm or hard fat indicates risk of laminitis. Monitor 2-3 times per week. Supplement with Kohnke's Own® Trim® as recommended, soak all hay, feed low GI feeds and restrict grazing to 2 hours per day. Consider a grazing mask.
5	5	Crest is so bulky and heavy that it hangs flopped to one side. This is an emergency situation and must be managed rigorously to avoid onset of laminitis and founder.	If not a thin stallion with a hormone- induced neck, CNS # 5 has an extremely high risk of metabolic disease with laminitis and severe founder. Supplement with Kohnke's Own® Trim® as recommended, soak all hay, introduce low GI feed, confine and monitor 2-3 times daily for 'heat in the feet', sole soreness and a digital pulse. Consult your vet immediately if these symptoms appear.

Reference: Adapted from Carter RA et al Vet Journal 179:204-210. Cited by Geor, Hams and Coenen. Equine Applied and Clinical Nutrition Sanders 2014 R P.401