HORSE NUTRITION SERIES #(2) HORSE NUTRITION (2)



On our first article dedicated to the nutrition of horses we discussed the biological origin of the horse and

the feed ration that should be related to that origin. Subsequently we have tried to explain the build and the digestive system of the horse.

In this second article on the nutrition of horses we will treat the last remainders of the feed the droppings. As soon as the horse has swallowed the pulpy mass, the feed follows a one-way road. After it has been swallowed, it gets to the stomach in a few seconds via the gullet (oesophagus). Then there is no way back. It is not possible for a horse to throw up. The content of the stomach amounts to 10 to 15 litres. This is minimal in comparison to the size of the horse.

As we stated earlier digestion takes place in the small and the large intestine. Since the small content of his stomach it is obvious that a horse feels best when it is supplied with smaller quantities of feed several times during the day. Large intakes at the same time are disastrous for the horse.

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Inside the stomach the feed is mixed with gastric juice which earlier has been mixed with saliva, thus turning it into a wet feed ball. In the stomach starch is transformed into sugars. The activity of the stomach mainly depends on the quality and type of feed, its being clean and free from noxious elements.

So be well aware that contaminated feed, too large quantities of feed or feed the horse is not used to eat may cause gastric complaints like fermentation, rotting gases, colic or a torn stomach wall.

EQUI SANUM HORSE FEEDS are always composed of pure, mould free ingredients.

The digestive process

After leaving the stomach the feed mixture gets to the small intestine with a length of abt. 20 metres. Here the amino acids and proteins in the feed are taken from the digestible proteins. These are the building



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materials of the proteins. Mostly in feed analyses, only raw protein is mentioned. However, it is very important that the level of digestible raw protein is also reported. The smaller the difference between raw protein and digestible protein, the better the quality of the protein and thus also of the feed.

The degraded starch (carbohydrates) to sugars is made absorbable by the intestinal juices and absorbed into the blood stream by way of the intestinal wall. To a certain extent hardly digestible elements like cellulose are necessary to benefit a proper grinding. However, they don't contain nutrients. After passing the small intestine, the feed mixture passes by the caecum with a content of abt. 30 litres, a content not to be compared with the human caecum. Bacteria and micro organisms

- the so-called intestinal flora - act from the caecum and the large intestine, to make the nutrients available to the horse.

The large intestine is the last of the digestive organs. Here the remaining liquid is taken from the feed mixture. Therefore it is important that the soaked feed mass doesn't pass too quickly through the large intestine. In that case too much liquid will be taken from the feed resulting into diarrhoea. Naturally the pancreas and the liver also play an important role in the digestive process. Both organs produce many digestive juices. However, we do not wish our article to become too technical. We may revert to this matter some other time. Well formed droppings with a moisture content level between75 and 80% are a sign of a regular digestion and good health. *(to be continued)*