Common Problems of Horse Nutrition in Horse Farms of Iran

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From studies of horse farms around Teheran and Hamedan and reports from other parts of country during 1994-1997, common problems of horse nutrition in Iran could be categorised as follows.

Type of feeds

Roughage: The use of low-quality roughage, sometimes only wheat straw and especially during the winter season, was common in small and sometimes even in large farms. This resulted in indigestion and colic in adults and structural abnormalities such as “hay belly” in young animals. Feeding mouldy hay was one of the common problems. Mouldy hay results in indigestion in mares and stallions and abortion in pregnant mares.

Silage: Silage such as corn silage can be used in horse nutrition. However, using mouldy silage in some farms increased risk of abortion in pregnant mares.

Concentrates: The traditional belief of increasing the athletic power and abilities of horses by increasing the amount of digestible energy was a common error when feeding the concentrate to horses. Concentrate overfeeding was usually associated with gastrointestinal, metabolic and reproductive disorders. The type of concentrate was also troublesome. Oats with high fibre content and low energy is considered as the safest grain for horses. Unfortunately, oat production is very low in Iran. Therefore, other grains usually with a higher energy content such as barely, wheat and corn, are mostly used. Overfeeding of such grains usually resulted in problems such as grain overfeeding, indigestion, colic and laminitis.

Feed Supplements

Unusual feeds and “hobby feeding”:

Some horse owners fed their horses with unusual feeds (sometimes human food residue) according to their personal experiences or traditional beliefs. Using a lot of raw eggs containing Avidin, an anti-biotin, as an energiser for racing in some areas of Iran could affect animal health, e.g. poor hoof growth. Feeding leisure horses, as a hobby for the leisure horse owner is usually a common cause of indigestion and brief colic especially after weekends. Overfeeding of horses with concentrate and again unusual human food, from lush fruits to snacks, is common in some horse clubs.

Minerals: Deficiencies or imbalances of both macro-and micro mineral, especially when young was a common problem affecting horse health and nutrition. Ca and P deficiency or imbalance has been suggested as the major cause of skeletal developmental disorders and their sequela. Using low-quality forage without mineral supplementation was a common problem. Using an insufficient amount of Ca-rich legumes and sometimes a high amount of wheat bran (rich in P) in diet was suggested as a potential cause of Ca/P imbalance. Additionally, in some farms, mineral deficiency was suggested to be the major cause of vices such as cribbing, pica and coprophagy in adult horses. Salt deficiency in working horse due to mis-management and in pregnant mares due to severe salt restriction in late pregnancy for prevention of udder and lower abdominal oedema, was a common problem.

Vitamins: By using good quality forages, vitamin deficiencies rarely occur. Many vitamins are synthesised in animal body and there is no need for vitamin supplements in a normal resting animals. Therefore, most of the exaggerated beliefs regarding the benefits of supplementation with vitamins have no scientific basis and are considered to be useless and costly, if not harmful.

Feeding Management

In some farms, although good quality feed was used, there were still nutritional problems due to mis-management. Traditional error of feeding according to volume not to weight was a common problem, resulting in over-feeding and/or under-feeding. Feeding frequency was another problem. Horses spend the majority of their daily time (60-80%) feeding. However, some farms feed their horse as infrequently as possible to save labour. Such strategy could cause problems with concentrate feeding and the nutrition in the young animals.

Water

Horses must have free access to clean water with good quality. Horses usually refuse to drink dirty, not pleasant or strange-tasting water. Broken automatic waterers and frozen water in open-stall or free range system in winter season could result in water deprivation. Such water deprivation especially when it was associated with feeding low-quality roughage in the winter resulted in many cases of colic.

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