

Vitamins

Vitamins are compounds that are required in very small amounts but are essential for normal metabolism. Vitamin supplements are rarely indicated if a well balanced diet is provided. Some exceptions do exist. Green pasture is high in vitamin A, but much is lost during drying and storing. It is possible for a pony to become vitamin A deficient if he is fed hay low in vitamin A for longer than 6 months. Also vitamin D deficiencies can occur if ponies are confined to a stable throughout the winter months, as exposure to the sun is a prime source of vitamin D. Both vitamins A and D are stored in the body for several months, so these vitamins should only be supplemented if there is a definite concern of deficiency.

More Information

This pamphlet is one a series written, in conjunction with the Newfoundland Pony Society, on the care of Newfoundland Ponies. Further information can be obtained from these pamphlets; from the many magazines and books on horse care; from your Regional Veterinarian; and from knowledgeable horse people in your area.

Links

Newfoundland Pony Society:

www.newfoundlandpony.com

For more information, please contact your Regional Veterinarian, the Newfoundland Pony Society or the Animal Health Division.

Other information pamphlets are available online from the Department of Natural Resources at:

www.nr.gov.nl.ca/agric/

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Nutrition of the Newfoundland Pony: Nutritional Requirements



Introduction

Nutrition is an important part of animal husbandry. The body condition, health and performance of your Newfoundland Pony is influenced largely by your feeding program. This pamphlet is the first of two dealing with nutrition. The second is on actual feeding practices.

Nutritional Requirements

A balanced equine diet is comprised of 5 essential components:

- Water
- Energy
- Protein
- Minerals
- Vitamins

Water

An adult pony can drink about 4 gallons of water daily. However, this will vary depending on physical activity, air temperature and humidity, and the amount of water in the feed. Provide unlimited access to water, except after exercise, when the pony should first be cooled down.

Water intake during cold winter months should be monitored. Often water freezes and some horses may be reluctant to drink an adequate amount of water if it is cold. If this is occurring, warm water should be offered as often as possible.

Energy

Carbohydrates are the main source of energy for the horse. Carbohydrates include the simple sugars, starches and fibre.

Sugar and starch are easily digested and absorbed while fibre is a more complex form of carbohydrate that is largely indigestible. Micro-organisms inhabiting the large intestine of the horse, however, break down fibre into simpler compounds that the horse then uses as an important source of energy. Fibre that is not broken down by the micro-organisms passes through the horse undigested, adding bulk to the manure and maintaining regular bowel movements. Grains are high in easily digestible carbohydrates, while hay and pasture are high in fibre.

Energy requirements for horses vary greatly depending on the activity level, whether the animal is growing, lactating or pregnant and the harshness of the climate. It is very important that the correct amount of energy is supplied.

Overfeeding will result in an obese pony with adverse effects on the health and performance of the animal. An overweight pony is prone to founder, colic, joint problems and foaling problems in the mare. Likewise, failure to meet energy requirements will result in loss of body condition.

An underweight pony can suffer from poor performance, reduced resistance to disease, un-thriftiness and poor skeletal development. An individual pony in poor condition should be examined by a veterinarian before changes are made in the diet, to determine if there is an underlying medical problem such as parasites, dental problems or disease.

Protein

Protein is necessary for the growth and maintenance of the body. The protein quality of the feed is very important. The protein requirements are expressed as a percentage of the diet on a dry matter basis.

The young, growing foal has the highest requirement at 16%, decreasing to 7.7% for a mature pony. As long as the appropriate amount of feed is provided, the working pony does not require an increase in protein above that required for maintenance. However, a protein deficiency will occur if the increased energy requirements of the working pony are not met. In such cases, body fat is first metabolized, and then muscle is broken down to sustain the animal.

Minerals

Minerals play important structural and skeletal roles, making up 4% of the weight of a horse. They also have many important roles in metabolism. Plants absorb minerals from the soil and are, therefore, subject to local variations. For example, regionally, western Newfoundland has a selenium deficient soil. Animals receive an inadequate level of selenium from locally grown forage. Mineral supplementation is often necessary but should be done with caution since over-supplementation can cause toxicity. Calcium, phosphorus and salt are minerals that require special attention.

Calcium and Phosphorus

Calcium and phosphorus comprise over 70% of the mineral content of the body, the majority of which is in bone. The calcium and phosphorus requirements of ponies are dependant on the age and function of the pony. Young, growing ponies, pregnant mares and nursing mares have high requirements for calcium and phosphorus. There is no increase in requirement for the working pony. Although supplying an adequate amount is very important, an oversupply of these minerals can lead to painful deposits in muscles, tendons and around joints and should, therefore, be avoided.

Salt

Salt is lost through sweating and urine, and the requirements are, therefore, influenced by activity level and weather. Salt is most efficiently supplied on a free choice basis; the individual pony will adjust its intake according to its need. Salt toxicity can occur if a salt-deprived animal is suddenly allowed access to salt, or if salt is added to the feed while water is restricted.

