****

**FEEDING DONKEYS**

By Dr. Faith Burden

Head of Veterinary Projects Department. The Donkey Sanctuary, Devon, U.K

.

Donkeys have evolved to survive in some of the most inhospitable parts of the world, and are adapted to live in mountainous desert areas. They are extremely efficient at digesting fibrous, poor quality plant material and have evolved as browsers [eating woody shrubs and trees] as well as grazers. Donkeys and their hybrid offspring, mules, are able to thrive on rations that horses could not. The donkey’s superior digestive ability makes them ideally suited to hard work in areas where food is of poor quality or is limited.

However, donkeys and mules are also kept throughout the world as companion or leisure animals, in many cases food is freely available and owners struggle to replicate the natural, fiber rich diet of the wild donkey. Such over- feeding frequently leads to health issues including a propensity to obesity which increases the risk of related diseases such as laminitis.

**FORAGE FOR DONKEYS**

**STRAW** - Donkeys and mules have evolved to survive on highly fibrous forages that they would naturally graze and browse on whilst walking many miles per day over challenging terrain. Donkeys have a natural appetite of between 1.3 – 1.8% of their body weight[in dry weight]; in order to avoid behavioral issues related to boredom it is important to satisfy this requirement by providing fiber throughout the donkey’s day. Satisfaction of the appetite without leading to weight gain is often challenging for sedentary donkeys and mules who do not work or who work only lightly

.

Donkeys are able to extract more energy from food sources than are horses and feeding donkeys freely on unrestricted temperate grasses and hays will undoubtedly lead to obesity. The most appropriate source of energy and dietary fiber for fit donkeys with good definition are cereal straws [cereal stalks remaining after the grain has been harvested]. Straw [barley, oat or wheat] is forage which is high in fiber and low in energy and allows the donkey to satisfy his natural appetite whilst not oversupplying energy.

For most donkeys and mules living in temperate climates, straw should form the majority of the diet. Straw can be fed from the floor or hay nets and should be freely available at all times for animals. Straw provides fiber and limited nutrients to the diet but does need supplementation to ensure protein and vitamin and mineral levels within the diet are optimal.

**HAY** – Donkeys require dietary supplementation with hay during the winter or when pregnant, lactating or growing in order to supply extra energy. Hay for donkeys must be selected carefully as forage made for horses or other livestock is often too rich and may lead to dietary upset or laminitis. Hay should be late cut, high in fiber, low in sugar and will be visibly coarse. Dusty or moldy forages should be strictly avoided as they may put the donkey at risk of respiratory disease or colic. Pregnant or lactating donkeys should be provided with extra hay during the last trimester of pregnancy and the first 3 months of lactation. Donkeys during winter should not require more than 25 – 50 % of their forage by weight to be comprised of hay, meaning that 50 – 75 % of their fiber should still come from straw

.

**GRAZING FOR DONKEYS** – Donkeys are poorly adapted to a life grazing on lush, green pastures. Time at pasture provides welcome opportunity to exercise, socialize and, of course eat, but care must be taken to manage grazing for donkeys. When grass is actively growing, grazing will need to be strictly controlled to reduce the quantity of grass eaten through strip grazing, rotation of small pastures, grazing with other species e.g. sheep or through a dry lot for part of the day. Grazing muzzles are not recommended for donkeys or mules.

Unproductive, traditional meadow type grazing is ideal for donkeys and allows them to sample a variety of plants, trees and shrubs. Generally an acre of land will provide ample year round grazing for a pair of donkeys and allows areas to be rested whilst other areas are grazed. Access to concrete yards, woodchip or sand areas is also extremely useful as donkeys can exercise without access to grass. They should have access to straw whilst grazing, reliance on grass as a sole fiber source for donkeys will lead to obesity and may lead to behavioral issues such as fence chewing as the donkey seeks to satisfy its natural requirement for indigestible fiber.

**SUPPLEMENTARY FEEDING FOR DONKEYS** – Donkeys receiving a diet of carefully selected straw, grass and or hay may not require supplementation other than access to an equine specific mineral mix. Experience at the Donkey Sanctuary of England has shown that the best way of delivering an optimal level of nutrition without promoting weight gain is to feed small amounts of a multi-supplement in a concentrated palatable pellet, which is designed to be fed with forage, avoiding the need to add excess calories to your donkey’s diet.

The vast majority of mature, healthy donkeys do not require additional feeds. When extra condition is required it is important to ensure that weight gain is gradual and feeding is based upon a fiber rich diet. Donkeys may require extra condition due to increased nutritional requirements such as during pregnancy or lactation, when working hard, when sick or when they have been inappropriately fed in the past

.

Elderly donkeys may also require extra condition as they can find chewing long fiber forages such as straw and hay difficult as their teeth deteriorate with age. In most cases the safest way to encourage weight gain in donkeys is to feed supplementary feeds based upon laminitic friendly, high fiber cubes and unmolassed or thoroughly soaked and rinsed sugar beet. In cases where donkeys are sick or extremely underweight other balancer products may be more appropriate

.

Elderly donkeys with dental problems may struggle to eat long fibers; to maintain a healthy digestive tract and natural behavior it is important to provide an alternative fiber source. Trickle feeding of donkey friendly, short chopped, chaff products throughout the day encourages the donkey to maintain natural feeding behavior and should assist with maintaining a healthy body condition

Chaff products should be soft, laminitic friendly with low sugar levels and should be safe for feeding as a sole diet, the addition

 of an appropriate balancer will ensure the donkey is receiving adequate nutrients. The base diet of short chop can also have additional fiber rich products added if further condition is required. When chaff can no longer be adequately chewed a compete feed of soaked fiber cubes and an appropriate balancer may maintain quality for life for an extended period.

**FEEDING SICK DONKEYS** – Lack of appetite is one of the most common signs that a donkey is ill. Donkeys are naturally very stoic and do not show such overt signs of pain as other equines, often the first sign of a problem is a donkey that suddenly becomes anorexic or whose appetite is reduced. Any donkey with a poor appetite should be seen by a veterinary surgeon, donkeys that are completely anorexic should be treated as a veterinary emergency.

Donkeys are particularly prone to developing a life threatening condition known as hyperlipaemia where lack of food intake causes the donkey to release reserves of fat to circulate in the blood. Unless the negative energy balance resulting from the anorexia is resolved quickly the fat in the bloodstream may infiltrate organs and cause irreversible damage and in some cases death

.

Sick donkeys often need their appetite stimulated, although molasses, cereal mixes and ginger biscuits can be used successfully in the very short tern they can be detrimental for anything more than a day or two. Most donkeys can be tempted with healthier products such as a digestive aid, peppermint cordial, dried or fresh mint leaf, ginger, grated or chopped carrots, apples and bananas [including the skin] and yeast extracts such as marmite. Tempting the donkey with small, tasty feeds rather than one big meal is also recommended. It is important not to under estimate the donkey’s natural instinct as a browser. Donkeys that have shown no interest in tasty mixes will often be tempted to eat if led to a nearby hedgerow to browse on the brambles and herbs available, this natural instinct can often be used successful in the worst of cases

.

**OVERWEIGHT DONKEYS** – Perhaps the biggest welfare issue for many donkeys in the western world is their propensity to obesity when fed high energy diets coupled with the fact that very few are worked. Health problems seen in donkeys are commonly caused by over feeding and lack of exercise. It is essential to keep donkeys in a healthy body condition as unfortunately solving the problem of overweight donkeys is a very difficult task. Dieting an overweight donkey is extremely difficult and is an issue that needs to be tackled from many angles

.

The diet of the animal is often only part of the problem with lack of exercise, companion issues and mental stimulation all needing to be addressed as well. In the case of obese donkeys and mules grazing must be very tightly restricted by strip grazing and owners should be guided more by reducing the area of land the donkey has available than the grass[or lack of] that they can see. Obese donkeys need nothing more than ad lib straw with very limited grazing in the summer and straw with limited hay in the winter. It is essential to supplement such a restricted diet with a multi-supplement to ensure that the diet is not deficient in vitamins and minerals

.

In order to help donkeys lose weight they must be exercised and encouraged to work for their food; ridden or in hand exercise is ideal, where this is inappropriate other methods can be employed. Donkeys can be encouraged to ‘work’ for their food by using sloping pastures, placing feedstuffs in different locations [i.e.. Spread in 4-5 different locations in the field], hiding small pieces of chopped carrot in the bedding, providing stable toys and employing track strip grazing areas. Invariably the key to dieting donkeys is to encourage more activity and to stimulate their minds; all of the above methods of environmental enrichment can be used in tandem with dietary restriction to encourage weight loss.

It is extremely important when dieting donkeys to make feed changes gradually and to monitor them closely. Donkeys should be either weighed or condition scored weekly and records kept of their heart-girth measurements. Progress when dieting donkeys is slow and perseverance is very important, it often takes time for the first amounts of weight to be lost, however once this process begins weight loss should be gradual and not excessive.

It is essential to know when it is time to stop dieting, donkeys store fat in very different areas to that seen in horses and invariably these fat pads [often seen on the crest, rump and flanks] do not disappear completely despite the animal being in an ideal condition. Although it is a difficult task, dieting donkeys gradually to attain a healthy body condition will have physical and psychological benefits for the animal and will almost certainly lead to the donkey’s life expectancy being extended.

**FURTHER ADVICE** – Donkeys are a unique species that cannot be managed like other equines. They require specific diets, healthcare and daily car. Further guidance and resources on donkey care and welfare can be provided by The Donkey Sanctuary; the world’s largest donkey and mule charity working to improve welfare worldwide.

**A BIT OF A SUMMARY**

Donkeys do require specialist feeding, they are not a small horse and should not be fed as such. They require fewer calories to maintain weight than a pony of the same size, and enjoy trickle feeding on highly fibrous feeds.

Donkeys are particularly prone to obesity and laminitis when kept in the UK [or North America] and need careful dietary management to avoid problems. The following is basic feeding advice for normal, healthy animals, if you require more specialist advice eg geriatric animals please contact us for further information. [www.thedonkeysanctuary.org.uk](https://l.facebook.com/l.php?u=http%3A%2F%2Fwww.thedonkeysanctuary.org.uk%2F%3Ffbclid%3DIwAR1_8CE5EmtZtPSPdYtZwQX_tJfFsT4S0UjgEwBHDkepfQ4MNubVapB1Bhs&h=AT22X4qwNTZ4D5od0Lm7en3PghroH35uiyReXCIKEspC_DFsONLimLn2CKLsIw_iWtPa8vhQY3xp7-5FFqTsmoPLdqqhW68FRFRxi6qy9fObkf9ztguRGsqMr7LxLss4OA&__tn__=-UK-R&c%5b0%5d=AT00qN81lDrPsZskeZx9I-mOq7FGZNbPebWByJ6syqZcD6dvXb_IvOJWQlnJHQmr_Em5f35SEqU35e1zzKYoX5yli3_0dKD0_HE5gbpOkjRBZUfWLMB3i2kKFFZXUY3fXvqPYf2zKhq2slvNBDnt9WTTJALqdBfAOUE)

**THINGS YOU SHOULD DO:**

♣ Provide the donkey with good quality feeding straw (barley and wheat are best) ad-lib with small quantities of hay or grazing plus a vitamin and mineral supplement that that does not promote weight gain

.

♣ Check the donkey can manage to eat long fibers such as straw and hay. Donkeys with dental issues may require long fibers to be replaced by a short chop diet instead. Donkeys should have their teeth checked at least once a year by an equine dental technician or vet who has gained the BEVA/BVDA qualifications or comparable in N.A

.

♣ Condition score donkeys regularly, they are prone to weight gain which can predispose them to laminitis and hyperlipaemia.

♣ Feed according to body condition, restrict intake of energy rich feeds (eg hay or grass) if a donkey is overweight but always ensure a source of fiber (eg straw) is available to satisfy their need to trickle feed

.

♣ Restrict grazing carefully as donkeys are very prone to laminitis, and the quantity of grazing should be controlled by restricting the size of the paddock rather than time at grazing.

♣ Make changes to a donkey’s diet very gradually over a period of 4-6 weeks

.

♣ Ensure all supplementary feeds are high in fiber, low in calories and suitable for laminitis.

**THINGS YOU SHOULD AVOID:**

♣ Avoid all cereal grain-based feeds. Donkeys can be maintained and encouraged to gain weight on fiber-based products without the need for inappropriate cereal grain feeds

.

♣ Don’t feed sugary treats. If treats are necessary for training or handling purposes then feed no more than a handful of chopped apples, carrots, or high fiber nuts per average sized donkey per day

.

♣ Don’t feed supplements unnecessarily. Donkeys only require a vitamin and mineral supplement unless other products are recommended by your vet. Supplements may in fact put donkeys off feed or they can overdose on nutrients leading to problems.

♣ Don’t provide sugar-based licks. These are often marketed, as ‘boredom breakers’ but are not suitable for donkeys due to their high sugar content

.

♣ Don't feed straw with retained grain. Always check for this and the quality before buying large quantities.

♣ Don’t restrict total food intake to encourage weight loss. Dieting should be done carefully using low calorie products in combination with exercise. Extreme dieting can put donkeys at risk of developing hyperlipaemia

.

**POSSIBLE DIETS THAT CAN BE USED:**

An average sized (175 kg) healthy, mature donkey will require 2-3 kg of feed per day to satisfy their appetite. In the majority of cases this should be solely provided by straw, hay or restricted grazing plus a vitamin and mineral balancer. A guideline for donkeys with good teeth is that straw should constitute 75% of the total dietary intake during summer months and 50% in the winter with hay or restricted grazing making up the balance.

Supplementary feeds suitable for donkeys requiring extra condition may include soaked beet pellets. Donkeys in poor condition or with additional needs [eg. Pregnant or lactating] may need supplemental feed of some kind.

Always introduce changes to the diet gradually and observe your donkey to ensure that it is eating. Try to avoid feeding your donkeys more than 1 kg of supplementary food at time, small frequent meals are best.

Always ensure that donkeys have access to fresh clean water and an equine specific mineral lick if not being fed a vitamin and mineral supplement/balancer. Continually assess your donkey’s body condition and make changes to their diet accordingly. If in doubt, consult your vet or contact our feeding and nutrition team.