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NEWC Grazing Muzzle Guidance

Introduction

Grazing muzzles are widely available on the market, therefore there is an increasing need to provide supporting advice to owners considering the use of a grazing muzzle as well as information to those who may be concerned about their use. National Equine Welfare Council (NEWC) members regularly receive enquiries regarding the use of muzzles so this guidance and video have been produced in response.

Ultimately weight loss should be achieved through an appropriate combination of diet and exercise – something which your vet or nutritionist (diet only) should assist you with.

This should include:

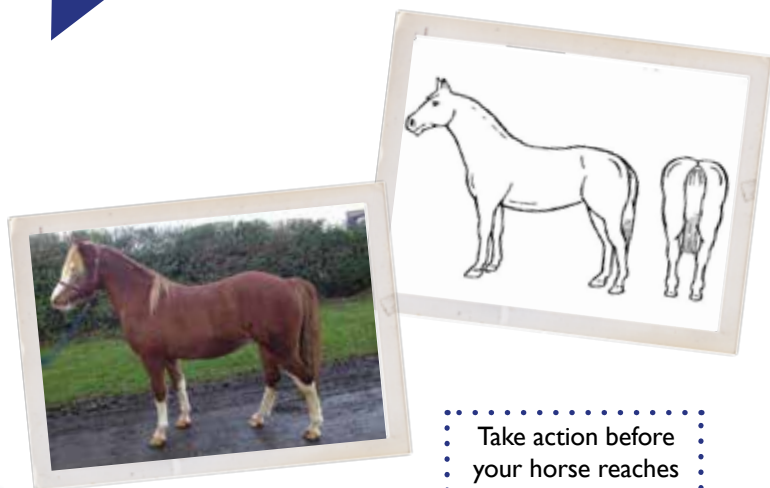
- The assessment of current diet and removal of unnecessary supplementary feed and forage
- Calculating accurate daily rations and ensuring forage and feed are weighed correctly e.g. dry weight
- No unnecessary rugging
- Assessment of exercise levels and increasing frequency and intensity where appropriate
- Turnout on suitable grazing
- Monitoring weight and body condition regularly

It's important not to leave it too late before employing these strategies. It will be easier to address weight loss earlier and avoid obesity-related diseases by preventing excessive weight gain.

Note that references to horses in this guidance refer to both horses and ponies but not donkeys or their hybrids.

Veterinary considerations

Equine obesity can be associated with underlying metabolic issues such as Equine Metabolic Syndrome (EMS) and Pituitary Pars Intermedia Dysfunction (PPID), also known as Equine Cushing's Disease. Your veterinary surgeon can test for metabolic issues and can support you to develop the appropriate weight-management plan which may include the use of a grazing muzzle.



Take action before your horse reaches body condition score (fat score) 4 out of 5

What is a grazing muzzle?

Grazing muzzles are used to restrict grass intake, not to prevent a horse from eating. Restricting grass intake is important for horses with a tendency to gain weight or that are susceptible to laminitis. Grazing muzzles come in different shapes and sizes but they are all designed to do the same job. Choice of grazing muzzle will depend upon individual fit according to the horse's head conformation.



What the evidence says...

Academic studies have found that grazing muzzles can reduce grass intake considerably. One study, using stabled ponies that wore a grazing muzzle on autumn pasture, measured intake over three hours and found an 83% reduction during this time¹. Subsequent work conducted over different seasons found just under 80% reduction², whilst another study in horses reported an average decrease of 30%³. It's worth noting that a more recent study looking at the value of grazing muzzle use over 10 hours, combined with 14 hours un-muzzled at pasture, showed that weight gain was reduced over a three-week period for most ponies⁴.

These studies, whilst not looking at compensatory eating specifically, have shown that when stabled ponies were allowed un-muzzled access to pasture for three hours, they were able to eat up to two-thirds of the daily dry matter intake that would have been recommended if they had been obese and required a restricted diet^{1, 2}.

Without restricted grazing/forage provision during the times without the muzzle, there may be no benefit overall. For laminitic horses, compensatory eating may be a particular concern as removal of the muzzle on lush grazing may rapidly increase water-soluble carbohydrate intake which puts the horse at risk of a laminitic episode.

Anecdotal evidence reports that horses wearing grazing muzzles spend a greater proportion of their time foraging than non-muzzled horses and yet still lose weight.

There is scope for further research into grazing muzzles. Many of the studies mentioned above were conducted on ponies and not horses. Other areas of particular interest include the impact of grazing muzzles on herd dynamics, social and individual behaviours as well as more research on their effectiveness.

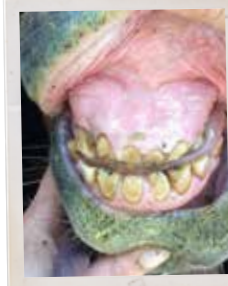
Potential welfare issues with the use of grazing muzzles

Owning and caring for horses comes with a legal duty of care to the animal under the Animal Welfare Act 2006, Animal Health and Welfare (Scotland) Act 2006 and the Welfare of Animals (Northern Ireland) Act 2011. This includes the need to protect against disease (see The Five Needs box below). Obesity is a growing welfare concern in the UK and therefore responsible grazing muzzle use can improve the welfare of your horse. Grazing muzzles help facilitate weight management, can allow bonded equines to remain together, improve turnout time, maintain movement and enable social interaction. However, here are some of the potential risks which underline the need for consideration of their use:

- Rubbing – common areas of rubbing can occur on the poll, behind the ears, top of the horse's muzzle, lips and points of cheek bones.
- Debris – sand, rubble and mud can collect inside the muzzle.
- Dentition – as a minimum your horse should have an annual dental check by your vet or equine dental technician registered with the British Association of Equine Dental Technicians (BAEDT).
- Grazing length – grazing muzzles should not be worn on short grazing as incisors are at risk of abnormal wear after extended periods of time. Horses wearing grazing muzzles may also struggle to consume particularly long blades of grass. It is important to note that some horses will get frustrated with the muzzle, particularly when grazing is too long or short. In these circumstances frustration behaviours such as bashing the ground with the muzzle have been observed.
- Getting caught – avoid risk of entrapment or being caught up by fencing off potential hazards.
- Behavioural restrictions – placing a muzzle over the horse's mouth impedes its ability to groom itself or others. It can also affect herd dynamics by masking visual mouth movements and restricting its ability to defend itself by warning other horses through facial expressions.
- When left in the care of others (including on full livery) – it is essential that the grazing muzzle is used correctly and the horse is adequately monitored.



Common areas for rubbing



Incisor wear

These Five Needs should be met regardless of the management system a horse owner chooses to use.

1. Its need for a suitable environment
2. Its need for a suitable diet
3. Its need to be able to exhibit normal behaviour patterns
4. Any need to be housed with, or apart from, other animals
5. Its need to be protected from pain, suffering, injury or disease (in Scotland: suffering, injury or disease)

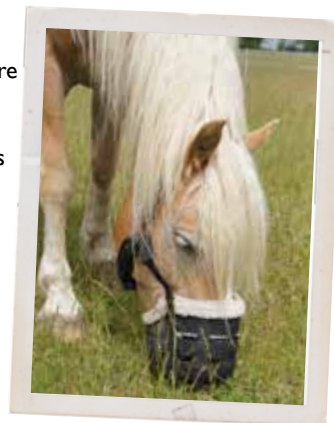
Animal Welfare Act (2006), Animal Health & Welfare (Scotland) Act 2006 and Welfare of Animals Act (Northern Ireland) 2011

When not to use a grazing muzzle

Weight-management strategies will depend upon the facilities available and the individual needs of the horse. The use of grazing muzzles must be responsible and come after all other weight-management strategies have been used (see introduction).

Perseverance is often required but be aware that grazing muzzles may not be the ideal solution for every horse. Prolonged periods of not eating or drinking are a serious concern and can occur in situations where the horse isn't sure how to use the muzzle or isn't happy wearing it. In these situations the muzzle should be removed. Check you have introduced the muzzle successfully. The horse should accept each small step before moving to the next stage of its training. This is why understanding the signs of discomfort and distress is so important. Seek advice from your vet if you need further help.

Owners whose horses present stereotypic behaviours (crib biting, wind sucking or weaving) will need to consult with their veterinary surgeon before using a grazing muzzle.



Monitoring the value of the grazing muzzle

It is imperative to monitor your horse's weight through regular weighing and body scoring (fat scoring). It is important not to assume the introduction of a grazing muzzle will inevitably control the weight gain or lead to weight loss in your horse. A combination of management factors is often required.

A healthy rate of weight loss is a maximum of 1% of bodyweight per week (after any initial loss due to a change in gut fill). Calculate 1% of bodyweight by multiplying the weight of your horse by 0.01. For example, for a 350kg pony this would be 3.5kg per week (or no more than 15kg in a month). It's advisable to track weight regularly and to monitor using the same equipment at the same time of day. This will increase confidence in the results. Inconsistent monitoring can leave you open to fluctuations in weight that don't accurately reflect weight loss achieved. Veterinary advice should be sought for pregnant mares.

For the average leisure horse, the ideal body score is 2.5 - 3 out of a scale of 5 unless your vet advises otherwise. The length of time your horse wears the muzzle for will be determined by the amount of weight loss, if your horse's weight remains consistent or if your horse gains weight. Close monitoring is necessary to find the optimum time the muzzle is worn for, whilst gradually making any necessary adjustments and continuing with the other management strategies.

Body Condition Scoring (fat scoring) is a method of evaluating external fat deposition at certain sites around the body. It's an important tool for assessing whether a horse is over-conditioned, the right condition or under-conditioned. To find out how, refer to the Equine Industry Welfare Guidelines Compendium for Horses, Ponies and Donkeys (NEWC website).



Use a weigh tape to monitor heart girth regularly

Key things to consider

Which grazing muzzle?

There are a variety of grazing muzzles available, each with different designs and materials such as plastic, nylon and rubber. Some muzzles are attached directly to the headcollar whilst others can be worn independently. Padding is often included on the muzzle area but some owners will make alterations to increase their comfort. The suitability of a grazing muzzle should be researched as a muzzle that is a good fit for one horse may not be appropriate for another.

Introducing a grazing muzzle for the first time

Watch our grazing muzzle guidance video online to see how to introduce a muzzle for the first time

It is important, when introducing any new piece of equipment such as a grazing muzzle, to break it down into small achievable steps so that it is a positive experience for the horse. It is important to reward the behaviour that we want to see at the right time otherwise we can inadvertently reward the incorrect behaviour. When your horse is calm and relaxed reward them with a wither scratch or a small, low-calorie treat/balancer.

The time taken to introduce the muzzle will vary depending on the horse's temperament and its prior handling experience.

It is important not to rush your horse which could create fearful associations with the equipment or your handling. If the horse shows signs of concern, discomfort or distress (see box right) move back a stage and repeat previous steps until the horse is comfortable.

Signs of discomfort to look out for...

- Tension in the face
- Wide eyes
- Raised head
- Ears back
- Evasion/Moving away
- Tail clamping

Here is a summary of how introducing the grazing muzzle is broken down into small achievable steps:

1. Start by training the horse to accept having the grazing muzzle near its face. Hold it against the head for a few seconds and remove it when the horse is calm and relaxed. This rewards the behaviour we want to see.
2. Next train the horse to accept the muzzle around its nose. Place it over the nose and remove it after a few seconds. Reward relaxed and calm behaviour.
3. Repeat the previous step but increase the period of time the muzzle is over the nose.
4. When the horse accepts the muzzle over its nose proceed to fully doing up the grazing muzzle. This should only be for a few seconds, reward through the muzzle then undo and remove gently and quietly.
5. Increase the period of time the muzzle is kept on the horse from seconds to minutes.
6. Graze the horse in-hand to motivate the horse to eat with the muzzle on.
7. Increase the supervised time that the muzzle is kept on the horse before turning out.
8. See our checklist to help you when leaving the horse unsupervised with the muzzle for the first time.

Sedation should not be used to introduce and fit a new piece of equipment. This is because on recovery from sedation the horse will not have been trained to accept the muzzle and therefore it may panic. Taking the time to do this correctly can make all the difference.

Getting the fit right

All grazing muzzles should fit comfortably before being left on the horse:

- Measure the length of the grazing muzzle against the side of the horse's head by starting at the top of its poll down to the end of the horse's mouth.
- You should be able to fit two fingers underneath the noseband of the grazing muzzle.
- There should be a one-inch gap between the horse's mouth and the base of the muzzle which the horse eats through. This will ensure that the horse's mouth is not in constant contact with the base of the muzzle, for example when it is not grazing.
- The horse must be able to open its mouth comfortably without any restriction.
- Ensure straps are not adding pressure to the points on the face.
- If using in conjunction with a headcollar ensure straps are not impeded, crossed or tangled.



Duration of wear

A horse should never be left with a grazing muzzle on 24/7. Academic opinion currently does not recommend use for over 10 to 12 hours per day. Remember that compensatory eating means that time without the muzzle needs to be in a form of restricted grazing/forage provision to ensure all your hard work is not undone. Other methods of prolonging chewing time may be needed to be put in place.



A horse should not be turned out or left unsupervised for any length of time during its first session with a grazing muzzle.

Keeping an eye on your horse's weight and behaviour will help you decide how long the muzzle should be left on for. Regular reviewing and adjusting is important to keep your horse happy and healthy.

Remember to
watch the **NEWC**
Grazing Muzzle
Guidance online!



newc.co.uk/advice_articles/



“The Donkey Sanctuary advise that grazing muzzles should not be used as a method of restricting grass intake for donkeys and their hybrids due to:

- Potential problems associated with donkeys on restricted diets such as hyperlipaemia
- The challenges of fitting and retaining a muzzle in place with animals that are often unaccustomed to wearing tack
- Their tendency to browse hedgerow vegetation, bushes and trees increases the risk of entanglement”

A checklist for leaving your horse with a muzzle on

- ☐ Ensure you've introduced the muzzle sensitively using the guidance in this document
- ☐ Make sure the horse is grazing comfortably and is able to drink with ease
- ☐ Know your horse's normal behaviour and note any changes
- ☐ Monitor any behavioural changes and ensure your horse has been accepted back into the herd
- ☐ Make sure water buckets/troughs have smooth edges with no handles to prevent the horse being caught up
- ☐ Fence off any potential hazards where the muzzle could become caught
- ☐ Plan to monitor weight weekly and body condition score (fat score) at least every 2-4 weeks

References

1. Longland, AC., Barfoot, C. and Harris, PA. (2011) The effect of wearing a grazing muzzle vs not wearing a grazing muzzle on pasture dry matter intake by ponies. *Journal of Equine Veterinary Science*. 31. Pg. 282-283.
2. Longland, AC., Barfoot, C. and Harris, PA. (2012) The effect of wearing a grazing muzzle vs not wearing a grazing muzzle on intakes of spring, summer and autumn pastures by ponies in forages and grazing in horse nutrition. M Saastamoinen, MJ Fradinho, AS Santos, & N Miraglia EAAP publication no 132 Wageningen Academic publishers. Pg. 185-186.
3. Glunk, E., Sheaffer, C., Hathaway, M. and Martinson, K. (2014) Interaction of grazing muzzle use and grass species on forage intake of horses. *Journal of Equine Veterinary Science*. 34. (7). Pg. 930-933.
4. Longland, AC., Barfoot, C. and Harris, PA. (2015) The effect of wearing muzzles for 10 hours daily on bodyweight of ponies pastured for 24 hours per day. *Journal of Equine Veterinary Science*. 35. (5). Pg. 430.



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