



## Free Choice Forage Feeding -- Beyond the Basics

by Juliet M. Getty, Ph.D.

If you have read my book, *Feed Your Horse Like A Horse*, listened to my lectures, or visited with me about your horse, you know that everything I do is based on feeding horses in sync with their instincts and physiology. Horses are grazing animals and are designed to consume forage virtually all day and night, taking a few minutes here and there to rest; this also includes ponies, minis, donkeys, and mules. Their consistent chewing produces acid-neutralizing saliva, thereby preventing ulcers. Walking to find that next tasty bite exercises the digestive tract muscles, protecting against colic. Allowed to graze this way, they're never overweight, though they eat constantly.

I know many of you understand the reasons for feeding forage 'round the clock. You are also aware of how physically and mentally stressful an empty stomach can be. Stress produces a hormonal response -- the secretion of cortisol, starting a vicious cycle of obesity and its inherent risks. When cortisol is elevated, it leads to an increase in circulating insulin levels. When insulin is elevated, it leads to fat storage (as well as increased laminitis risk). And the more fat your horse stores, the more insulin resistant he becomes, leading to greater obesity. Therefore, stress keeps your horse overweight.



To halt this dangerous cycle, we need to reduce the flow of cortisol; we need to stop the source of stress! Horses instinctively know how much food they need to maintain overall body condition. But when they experience gaps in their forage supply, they perceive themselves as starving and go into survival mode, "inhaling" every batch of hay you provide. But amazingly, when they are allowed to have a never-ending supply, they will calm down, eat less, and *self-regulate their intake*. I have witnessed this hundreds of times – once your horse gets the message that hay is always available, that he can walk away and it will still be there when he comes back, he will take a break and lose interest in stuffing himself. And lo and behold – your horse starts to lose



weight! He loses weight because his hormones moderate themselves, and so he is now able to burn off body fat. For most horses, it takes about a week for them to start to self-regulate. For some, it can take up to 2 months. *But it does eventually happen if you give your horse a chance for his instincts to kick in.*

You may be reading this article and thinking that you already tried and gave up in frustration. It's frightening to watch your horse overeat – not only is he getting fat (or fatter), but you're afraid of colic or even laminitis. You're reluctant to continue. Or perhaps you are too scared to even start. I understand your concerns. Allow me to give you some guidelines to make this approach successful. Let's get beyond the basics...

- **Step 1: Start with a grass hay**

- Grass hay (e.g., timothy, Bermuda, orchardgrass, brome, Teff, etc.) tends to be lower in calories than legumes (alfalfa or clover) -- not because of differences in the sugar/starch content (which is surprisingly comparable to alfalfa), but because of its lower protein content. Alfalfa is very helpful in boosting protein quality and can be part of a nutritious forage-feeding plan. But stay away from grass/alfalfa mixes when feeding hay free-choice. Horses will pick out the tasty alfalfa and end up eating too much of this calorie-dense forage.

- **Step 2: Analyze your hay**

- Free choice only makes sense if the hay is low in calories, as well as low in sugar and starch. You can't expect your horse to lose weight if you give him all the "candy" he wants. Sugar and starch increase the blood's insulin level, which keeps your horse fat. The non-structural carbohydrate level should be less than 12% and the digestible energy (calories) should not be higher than 0.90 Mcals/lb.

- **Step 3: Don't let your horse run out of hay, not even for ten minutes!**

- The key to self-regulation is for your horse to have hay available *always*. If he runs out, even for 10 minutes, he will never get the message that there is always forage available and he will remain in "survival mode." Be sure to give him enough hay to last all night long – there needs to be some left over in the morning. And then watch for when he walks away from his hay supply – that's when he's getting the message!



- **Step 4: Patience**

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Let me assure you that I have never seen a horse colic or experience laminitis when fed a low NSC hay, free-choice. At first, the horse will overeat and will seemingly never leave the hay pile. This is because he still feels that he needs to eat all he can to survive. He will develop a “hay belly” which is not fat and is quite normal – it’s caused by gas production from microbial hay fermentation within the hindgut. It is likely that he will gain a few pounds, *initially*. But know that *eating actually increases* the rate at which calories are burned (metabolism) and *an empty stomach decreases it*, so it takes time for the body to make this adjustment.

### ***But this costs a fortune!***

Actually, it can cost less. Once stress is reduced, you’ll see your horse slow down and no longer need to eat everything in sight. In most cases, he will actually eat less than before. Of course, activity level and outside temperatures also affect how much a horse will instinctively consume. But let the horse tell you how much he needs – you’ll be surprised by the answer.

### ***What about slow feeders?***

There are many devices on the market that slow down hay consumption by encouraging smaller bites. These are worthwhile but keep in mind that you need to introduce them very slowly, allowing your horse to become accustomed to this new eating method. If your horse gets frustrated, it can defeat your purpose by causing that hormonal stress response that leads to fat storage, and your horse will remain heavy. These feeders can be used in stalls, and ideally, placed in several locations outside to encourage movement while grazing.

### ***Movement, movement, movement***

Not everyone has a lot of land. Utilize your space as efficiently as possible. If you have a limited area, place small piles of hay in as many places as possible. Horses enjoy searching for their next delicious morsel. Tap into this behavior by offering the opportunity to move away from one large hay feeder. Movement not only burns calories, it keeps the digestive tract muscles in good shape, preventing them from getting “flabby,” which can lead to colic. It also increases blood flow to all tissues, improving digestion, while keeping hooves, joints, muscles, and the rest of his body in good condition. And you may be surprised to learn that exercise makes your horse’s cells more responsive to insulin, making him less insulin resistant. Finally, exercise builds muscle mass, which increases your horse’s metabolic rate.

Your horse does not see free-choice grazing as an option – this is the way he is designed to eat. This is the way his predecessors remained healthy for millions of years. Respect his need to be what he is – a horse.

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