This month we're going to answer some of the questions that are frequently asked at feed stores. Maybe you've had these questions yourself; maybe you have never thought about them; perhaps some of the answers will surprise you. Hopefully the information will help you as you make choices regarding your horse's diet. As hay...rather, the lack of hay...is of huge concern this year, that's where we'll start.

- 1) So...what's the hay situation look like for the rest of the winter? I wish I knew. My crystal ball works about as well as yours, so here's my best guess. For many of us, hay will be in short supply and the quality won't be great. Here in southern Maine, the hay we've seen has been low in protein, mostly adequate in calories, and all over the board in terms of sugars and starches. You can't tell any of this by just looking at your hay though, so take a gallon-sized baggie of hay to your feed store and ask if they will send it out for analysis. Then, when you get your results, ask someone at the feed store to help you evaluate it and make suggestions if you need to change your feed. Hay is likely to continue being in short supply, as farmers in Canada also had less than ideal growing conditions. If you think you won't have enough to get you to next June, now is the time to consider adding forage cubes or hay pellets or hay extender pellets to your horse's diet.
- 2) What's the difference between timothy or alfalfa pellets and hay extender pellets? Great question. Timothy and alfalfa pellets and cubes really are made from timothy and alfalfa grass. The grass is cut, dried, chopped, and pressed into a pellet or cube form, perhaps with a binder to keep it all together. Hay extender/stretcher/replacer pellets are not made of grass hay. Their ingredients are usually a mixture of wheat byproducts, soybean hulls, maybe some oat byproducts, possibly some additives, and maybe a bit of cane molasses to help bind it all together.
- 3) How do I use hay replacer or hay pellets? Not like long-stem hay! The recommended feeding rate for most hay replacers, timothy, or alfalfa pellets is to replace hay pound-for-pound, but only up to half of the amount of long-stem hay that you would feed. So, in theory, if you feed 20 pounds of hay per day, you could feed up to 10 pounds in pellets. But this is where it gets tricky: you should not give your horse more than five pounds of a concentrate in one meal, because you don't want to overload his small stomach. Hay pellets and hay replacement pellets could be considered a concentrate in this case. If you are feeding a concentrated feed as well as considering hay pellets, take that into account. A horse can eat pellets faster than he can eat the same weight of hay. It's okay to feed more than five pounds of long-stemmed hay at a time because it takes a while for the horse to work his way through it. Although hay pellets and hay replacement pellets can help to extend your hay supply, long-stem hay is still the best, if you can find it.

You should not wait until you are nearly out of hay before adding cubes or pellets to your horse's diet. If you think you will run out of hay, start adding the pellets or cubes now. You will extend your supply of long-stem hay by doing this. Long-stem hay is important because of the "scratch factor," which stimulates the horse's mouth to produce saliva. You may remember from a previous article that saliva is critical part of digestion because it starts the chemical breakdown of

food, lubricates food during its journey to the horse's stomach, and helps protect the horse's stomach from highly corrosive digestive acids.

4) Okay, my hay isn't that great. But I can't afford to throw it all out and buy more, even if I could find it. We don't want you to do that either. If your hay isn't moldy or musty, there are accommodations that you can make. Moldy hay isn't safe to feed. If it's dusty, you should probably consider soaking it or at least dunking it to reduce the dust. Yes, I know that is a problem in the winter, and I wish I could offer one fool-proof suggestion as to how to make it easier, but there is no one way to do this. Some people dedicate a stock tank for this purpose, some people can do it in their garage, some of us just put on waterproof gloves and grit our teeth and get it done!

Soaking can also help to lower the sugar and starch or NSC levels (non-structural carbs) in your hay. If you have a horse that is sensitive to sugar or has metabolic issues, you may have already had this conversation with your veterinarian. It's important to know what the NSC levels are before you start soaking. In some cases, the NSC levels may be so high that soaking really won't lower it that much. In that case, you should be having a discussion with your veterinarian about other alternatives. Some of those alternatives may include the addition of a low NSC hay pellet or cube, which will help to cut the overall intake of NSCs.

If your hay analysis shows that your hay is low in protein and vitamins and minerals, consider adding a ration balancer to fill in those nutritional gaps. More on that in a moment.

- 5) Some people steam their hay; is that better than soaking it? These are two different processes that yield different results. If you need to lower the sugar content in your hay for horses with metabolic concerns, such as PPID or laminitis, recent studies show that soaking your hay for 30-60 minutes is more effective than steaming. If you have a horse with respiratory issues, then steaming is a better way to reduce the allergens that may be his triggers. Talk with your veterinarian regarding your horse's specific needs.
- 6) Ok, you mentioned ration balancers for less nutritious hay. What do they do? Think of ration balancers as supplements, not feed. If your horse's diet consists mainly of forage in the form or grass or hay, ration balancers fill in the nutrients that are lacking. If you give your horse a concentrated feed but you don't feed as much as the bag suggests, then he isn't getting all the vitamins and minerals that he would if he were eating the correct amount. This is another place where ration balancers can help you fill in nutritional gaps.
- 7) Are all balancers the same? Not necessarily. They may differ in the amount of protein, vitamins, and minerals. Most are so similar that you could probably spend your afternoon comparing them without finding huge differences. There is one on the market that is very low in protein, and its niche is that it is soy free. This is because there are some horses that are soy sensitive. Soy is in most horse feeds because it is a great source of protein. (Remember that protein is made up of amino acids. The amino acids in soy to bear a close relationship to the amino acids- and the proportions of amino acids- that are required by the horse.)

8) I'm feeding the same amount of hay and feed, but my horse seems to be losing weight. Any suggestions? Oh, I have lots of suggestions! First, let's cover the basics. Have you had his teeth checked recently? Have you had a fecal exam done, and has he been dewormed? Is he doing more work, or is there someone in the pasture that is running him around or preventing him from eating? These are all things that are easy to look at before we have to start getting into more detail. How much concentrated feed is he eating in pounds, and how much does the feed bag say that he should be eating? Maybe he just needs more groceries. Are you now feeding hay that is lower in calories? Let's get that hay analyzed so that you know the calorie count. Are there other things going on with his body that would indicate a metabolic issue? Time to get the vet involved.

It's important to remember that a horse's ability to absorb nutrients usually changes as they age, so your feed may need to change too. Senior feeds are built around the premise that an older horse doesn't absorb nutrients as well as a younger horse, so quality senior feeds provide an abundance of nutrients and offer them in a more bioavailable form.

- 9) How do I know when my horse is a senior? There is no hard and fast answer here. Some horses could be considered seniors when they are in their mid-teens, some when they are late teens or 20s. Instead of thinking about a number, look at the overall condition of your horse. Is he slowing down? Is he stiffer than he used to be? Have you noticed changes in how he eats, or in his poop, or in what he does during the day? Is he as sociable as he was when he was younger? Are there any changes in his attitude? These are some of the signs we consider when determining whether a horse could be considered as senior.
- 10) Are all senior feeds the same? Not at all. Be careful here, as there is much variation. I think of all the "classes" of horse feed, the senior feeds have the most variation. This is what I mean: if you are feeding an "economy" feed, the bag from ABC is going to be similar to the feed produced by XYZ. Mare and foal feeds don't differ much. High performance feeds have much in common with each other. But senior feeds…LOTS of variation. There are senior feeds that are high in fat for those horses that have trouble maintaining weight. There are ones that are low in calories for those seniors that don't do anything and are air ferns. There are senior feeds that are complete feeds, and ones that are not. This is where the advice of a knowledgeable feed store employee can help you.
- 11) What does "complete feed" mean and how do I use it? Can I use it if I feed hay? Complete feeds are different than the traditional feeds in that they have the addition of fiber. Think of them as concentrates and forage in a bag. When fed properly, they contain all that a horse needs (except for water and salt. Always provide those free choice.) Complete feeds are a great choice for horses that can't chew forage, have limited access to forage, or have poor quality forage. A couple things to consider though: if you are replacing long-stem forage with a complete feed, your horse will eat it faster than he would eat his hay. And because complete feeds are both feed and fiber, the feeding rate is high. That means lots of pounds per day. Remember that you shouldn't give more than five pounds of concentrated feed at a time. Having a horse on just a complete feed diet means that you will be feeding him more than twice a day.

Yes, you can feed a complete feed with hay. You would be using fewer pounds of the feed if your horse is able to eat hay. However, you would likely not be giving your horse all the nutrients that he needs. See the next question for more information.

- 12) So, a complete feed is like a ration balancer? Not at all. A complete feed is both concentrated feed (think of your traditional fortified feeds) AND fiber in one bag. Ration balancers are supplements that contain protein, vitamins, and minerals. Look at the bag tag on the complete feed. If your horse isn't eating forage and is eating complete feed at the rate that the bag recommends for diets with no hay, then he is getting all his nutrients (again, except for water and salt. You'll need to offer those!) If he is getting the recommended amount of complete feed for a diet that includes hay, he is not getting as many nutrients. We'd like to think that he's getting them in his forage, (after all, forage should be the largest part of your horse's diet) but we know that isn't the case. What's the best way to resolve this? Add a ration balancer. It will fill in the nutritional gaps.
- 13) Why can't all my horses eat the same thing? The short answer is because your horses are not all the same. They are likely different ages, they may have different levels of activity, and their metabolism certainly differs. The key to keeping your feed room from total chaos is to choose the feeds that will suit your horses and make use of a ration balancer. In my feed room I have two types: a high-quality senior feed that is also a complete feed, and a high-quality ration balancer. The picky horse who is a hard keeper eats senior complete feed and all the hay that he wants. He won't even consider a pelleted ration balancer. The old girl, who can be picky about her hay and loses weight easily, eats a combination of senior complete feed and a ration balancer and all the hay that she wants. The three air ferns eat just ration balancer and a measured amount of hay. By the way, mature horses can eat senior feed. It isn't just limited to old horses. If I had high performance horses that needed lots more calories, I would either add a high-fat complete feed or a mid-to-high NSC level feed depending on his sensitivity to starches and sugars. Because there are many to choose from in each category, consult your veterinarian first, if your horse has health concerns, and then talk with your feed store about appropriate choices.

We know much more about feeding horses now than we did even a couple decades ago, and we have many more choices. It can seem overwhelming. These answers cover just a few of the questions that we frequently hear regarding feeding choices. We'll continue to explore more questions in future issues.