

Once we get out of the alfalfa mode, questions abound as to which grass hay is the “best.” We have our personal preferences, but it really depends on what is available in different parts of the country.

We have a concern about the mono-culture grasses grown on artificially fertilized fields. Such fertilization can result in toxic levels of nitrogen in the feed causing a *nitrosis* in horses. As we found to our great dismay, even unfertilized fields can result in high nitrogen levels through the irrigation system with its runoff from fertilized fields. We had three mares abort one year due to this. If nothing else, have your hay analyzed for nitrogen levels; you must request this specifically. This is a hidden problem as high nitrogen hay can look and smell great to us. Have you noticed in your pasture areas that certain spots of bright green, tall grass are untouched by your horses? Those spots tend to be where they urinate, thus is full of N.

Our personal ideal hay is mountain or plains grown mixed grasses. Such a mixture will provide a wider variation of nutrients than mono-culture. However, these natural/native grasses are not easy to come by if you live outside such areas and even within them. Since the grasses provide only one cutting, at least if they are unfertilized and un-irrigated, they are self-limiting in quantities available. There are other options, but the ultimate “goodness” of *any* hay is dependent upon health of the soil (**HumiZyme** soil is the best possible), fertilization procedures, maturity at cutting, baling techniques, etc. Good hay should smell sweet, contain little to no dust let alone mold, and be free from herbicides and pesticides.

Also of importance is to figure pricing accurately. Most hay today is priced by the bale and many people do not realize that a “bale” is not just a “bale.” Bales can range in weight from 30-35# all the way up to 90# or more. The average weight of bales cut from our pasture is about 65# while the mountain/prairie hay we purchase is about 85#. It is best to break the hay down into price per pound. \$6 per bale may sound far better than \$9 per bale until you discover that the \$6 hay is only a 35# bale which comes to 17 cents per pound while the \$9 per bale hay weighs 75# bale which comes to 12 cents per pound. At approximately 25# per day for hay feeding most horses, that works out to \$4.25/day for the 35# bale yet only \$3/day for the 75# bale resulting in an annual savings of \$456.25.

Purchasing by the bale from your local feed store is probably the most expensive way you can go

although it may initially seem wallet-friendly. By not being able to talk directly with the grower, you may not be able to learn all you would like to concerning the growing, fertilizing, baling and spraying procedures. Generally the least expensive way to purchase hay is to pick it up yourself out of the grower’s field although that is impractical for many. A good compromise is to buy a semi-full at a time which will hold from 20-24 T per load depending on bale density. We figure on a safe average of 4T per horse per year, so if you have only one or two horses, share the load with friends so that you all may benefit. When hay is being shipped in, it is wise to be there to check the bales as they are offloaded. We always break open random bales to check the interior; if it is not up to our standards and to the standards that were represented either verbally or visually, the load is refused. Yes, we have done that and you can, too.

There are numerous hays available although, generally speaking, first cutting orchardgrass, bluegrass, timothy, bermuda, brome, or mixes of any of those, are considered good hays for horses. First cutting is preferable to second since it is slower growing thus containing more of the necessary fiber. Remember to feed by the accurate pound, rather than the ephemeral “flake.” And be aware that drought years can turn normally fine fields into toxic ones as various plants try to save themselves from extinction.

**Alfalfa mix** We tend to discourage an alfalfa mix, even if it is only 10% or less, because essentially it defeats the purpose of being able to feed the hay fully free choice. Usually the mix is not standard throughout the field (as a matter of fact, alfalfa tends to take over) and one bale may have very little alfalfa while the next bale may have an extremely high percentage. If you wish to feed some alfalfa hay to balance protein, we think it far safer to get plain alfalfa bales and feed a small flake, 1-3#, at lunch. Or, for even more control, get good alfalfa pellets, as we do, that dissolve easily (for choke control) and simply give a quart (app. 1.5#) or two per day as a concentrate.

**Bermuda** hay runs about 5% protein and tends to not be very digestible for either babies or geriatrics because of its coarseness as a mature hay. It also tends to “rope” in the *cecum* causing occasional colics. If it is too fine and immature, then it has insufficient fiber and

(Continued on page 2)

(Continued from page 1)

can wad or compact in the gut. It also is fairly low in calcium. Some vets do not consider it an option.

**Bluegrass** has long been considered one of the finest hays available although it tends to be as high in protein as alfalfa so perhaps use it solely in a mix with lower protein hays. Originally grown in KY on limestone-rich soils, its mineral content was the back-bone of the TB community. Be wary of some modern growers, both there and in other parts of the country, who have gone to high nitrogen fertilizers.

**Brome** is about 11% protein and is good for mid-or early-bloom; if cut later, it can contain too much fiber for many horses and can become too low in protein. It has a Ca:P ratio of about 1:1.

**Clover** is a legume like alfalfa and so preferably would not be included in any hay or hay mix. It can also harbor *endophytes* or fungi which can cause severe illness, sometimes death, in horses, especially pregnant mares.

**Crested wheatgrass** requires a lot of moisture, and has to be cut pretty early or it is very coarse and fibrous; it is about 8% protein.

**North Park hay** has long been considered the epitome of fine hay in CO. It used to be shipped around the country for all manner of competitive horses. However, poor growing practices, increased fertilization and irrigation practices, and reseeding, has compromised its excellence to some degree. While there is still a supply of superb hay coming from the region, be wary of multiple cuttings as those simply do not occur with high-altitude, cool-climate, natural grasses that take most of the summer to develop. If someone says they will ship you hay in July, it very well may be from last year's crop. Mountain hay tends to have excellent protein values and be abundant in minerals.

**Oat hay** is a grain rather than a true grass and is usually headed out before it is cut. Oats contain *avenin*, a central nervous system stimulant that can send many horses sky high when consumed in hay quantities.

**Orchardgrass** is a fine stemmed grass similar to brome in its protein levels but without the drawback of becoming too fibrous.

**Prairie grass** is a mix of wild grasses; essentially what

horses evolved upon. While it can be an excellent hay, many modern horses, used to very fine-stemmed timothy, etc., may not be too eager initially to eat it but eventually will take to it. It takes longer to chew and may be too coarse for babies and tooth-challenged geriatrics. Also, it's protein level may need to be raised for modern horses by feeding extra **HES** to babies and hard-working stock. Prairie hays tend to be very high in minerals resulting in notably less consumption of the **DYNAMITE® Free-choice** offerings of **NTM Salt, 1-2:1**, and **Izmine**.

**Rye** is on the high end of the carbohydrate scale and is prone to *endophytes*.

**Sorghum & Sudan** contain *prussic acid* capable of causing *cyanide* poisoning such as happened in KY with lost foal crops. A Sudan study at WSU showed that horses lost weight, muscle and topline at such an alarming rate that they ended the study early.

**Timothy** is a fine-stemmed, low carb, low protein grass hay; good especially for insulin-resistant horses. It has approximately a 2:1 Ca:P ratio. Because of its low protein level, some **HES** may need to be added for lactating mares, growing babies and working horses.

**Hay pellets and cubes** can be a necessity for geriatric horses in order to provide the necessary fiber when they cannot chew very well. Check with your local feed store to find a source that has a good grass mix with no alfalfa or grains and that is from good fields. Unfortunately, some manufacturers use marginal to poor hays for their pellets/cubes while others, the preferred ones, grow specifically for the pellet/cube market. One horse owner we heard of simply spreads bales of her good grass hay out on the lawn and runs the mower over it a few times to make it edible for her almost toothless, aged horse.

**T**here is no supplement in the world that can fully make up for a lack of good hay. For the long-term health of your horse, save your money and go for the very best, chemical-free grass mix you can find, remember to have it tested for nitrate levels, ship it in if necessary, and feed it free-choice; that is what equine guts require. We believe that if you really cannot afford good hay fed in this manner essential to minimal equine well-being, then perhaps you might have to rethink your ability to commit at all to equine care. ■