



Redemption Farm Hoof Care
www.redemptionfarm.com
Kirrily Niswander
(502) 297-1973

Nutrition for Healthy Hooves (and the whole body!)

◆ **Nutrition is just as important as the trim** when working with problem hooves!

◆ **Low Sugar Diet**

- ◆ This is beneficial for all horses, and absolutely critical for others. If your horse is footsore (especially in the spring and fall, or after eating extra grass), has signs of EMS like fat pads/cresty neck, or signs of laminitis, he absolutely must have a low sugar diet. Some horses without the above issues may tolerate grazing, but should still avoid sweet feed. Horses evolved in semi-desert environments with limited food availability, and are not meant to gorge themselves on lush green grass all day or high sugar feeds. This is especially true of donkeys.
- ◆ **Limited grass:** grazing muzzle, dry lot, track paddock. Strategic grazing times to avoid high sugar peak times. Grass generally has the lowest sugar content from 3am-10am, and is the highest in the afternoon. Grasses are most dangerous for affected horses on a sunny day after cool nights below 40 degrees.
(see www.safergrass.org)
- ◆ **Low sugar/starch feed** or ration balancer, or better yet, skip the commercial feeds and use an appropriate forage balancer instead (see Mineral Balancing below).
- ◆ If feeding beet pulp be sure to rinse-soak-rinse to decrease both the sugar and the iron.
- ◆ Feed only low sugar/starch hay (verified by testing, less than 10% ESC + Starch, see below) and/or soak hay for sensitive horses. Soak hay for 30 min in hot water, or 60 min in cold water to reduce sugar content. Do not let the horse drink the resulting sugar water.

◆ **Healthy Grazing**

- ◆ Some horses thrive on healthy pastures! There is a huge difference between a chemical filled, over fertilized, “improved” grasses pasture VS a more natural mixed field. Many horses that have problems on the manicured pastures can happily graze on healthier more natural pastures without issues. NOTE: this does not mean your laminitic horse can go back to pasture, even if it is a healthy pasture! Some horses truly cannot have any fresh living green food!
- ◆ Horses are meant to browse a variety of grass, forbs, weeds, shrubs and even trees. Living in a monoculture perfect pasture is not natural or healthy for horses. Encourage diversity of plant species in your pasture for improved gut health (which in turn improves hoof health). Overseed with various different types of grasses and horse safe forbs. “Improved” types of grasses designed for fattening cattle are not appropriate for horses. Avoid rye grass, as it can have very high sugar levels. Excess clover and fescue can cause issues too.
- ◆ Avoid toxic chemical herbicides when possible. These can disrupt the gut microflora and cause many problems, including hoof sensitivity or even laminitis for some. Again, consider why you need to spray with 2,4-D or similar – are those broadleaf plants really a problem? Perhaps the diversity of the pasture is actually a good thing. In some cases when dealing with toxic plants you may need to use herbicides to control them, but I make every effort to find other ways, such as mowing regularly or taking other steps to increase soil health so the desirable plants can outcompete the problem plants.
- ◆ Test your soil to determine if you need anything to balance your pastures, such as lime.
- ◆ Limit excessive synthetic fertilizer. You aren’t grazing beef cattle to prep for market! Excessively rich grass can be too much for many horses, and again the sensitive horses sometimes have flare ups from chemicals. Better

to spread compost or manure to fertilize fields, it will take longer to improve the pasture, but is safer and more natural.

- ◆ **Mineral balancing:** The bluegrass region of KY has extremely high soil iron content. High iron competes with copper and zinc for absorption, resulting in copper and zinc deficiencies. This causes lots of problems for horses, including thrush, white line disease, poor hoof quality, hoof cracks, laminitis, footsoreness, skin issues, bleached coats, and worsens insulin resistance.

- ◆ **GOOD:** (bare minimum) Add extra copper and zinc to offset the high iron. Also add magnesium and salt.

- Lowest price plain minerals (as of 4/19): California Trace individual minerals (Cu, Zn, Mg)
- Easier: Custom Equine Nutrition sells pre-mixed just Copper & Zinc, free shipping. Give 1 tsp per day. Need to add magnesium.
- Magnesium Oxide is available at many feed stores for about \$25 for 50 lb, which will last a VERY long time!

- ◆ **BETTER:** premixed complete supplements:

- **Vermont Blend AND Omega E** – from Custom Equine Nutrition
- **Arizona Copper Complete** (ask for it to be custom mixed WITHOUT manganese, as our local forage already has too much). Available from HorseTech. Free Shipping and 5% discount if you ask to join the buyer's club.
- **California Trace PLUS** (not regular), need to add magnesium

- ◆ **BEST:** *Gold Standard Nutrition*

- Test hay, then get a custom balancer mix based on the hay results. HorseTech will make custom mixes at no extra charge and has free shipping. Also ask to join their free buyer's club for a 5% discount.
- Feed this in a carrier, such as wet timothy pellets, rinsed beet pulp, or soaked Triple Crown timothy balancer cubes.
- I have a hay corer to collect a hay sample for testing, and can help you come up with the perfect diet for your specific horse. The test is \$32 at EquiAnalytical.

Complete Hay Balancers							
Prices are for large bag size (second largest option for AZCC)							
Hay Balancers	HorseTech AZ Copper Complete	Custom Equine Nutrition - VT Blend	K.I.S. Trace	CA Trace PLUS	CA Trace	Mad Barn AminoTrace+	Uckele U Balance Foundation
Cost per day	\$1.39	\$0.90	\$1.21	\$1.28	\$0.53	\$2.20	\$2.67
Serving Size	5 oz	4 oz	4 oz	4 oz	2 oz	200 g	226.8 g
Lysine	10 g	10 g	9 g	10 g	7 g	10 g	6 g
Methionine	3 g	5 g	2 g	3.5 g	2.5 g	6 g	2.275 g
Threonine	2 g	2 g	3 g	5 g		5 g	2 g
Magnesium	5 g	6 g	4 g			11 g	8 g
Iodine	4 mg	3 mg	3 mg	3.5 mg	3.5 mg	5 mg	6 mg
Copper	260 mg	300 mg	320 mg	300 mg	175 mg	300 mg	600 mg
Zinc	720 mg	900 mg	850 mg	750 mg	500 mg	760 mg	1650 mg
Selenium	2 mg	2 mg	3 mg	2 mg	2 mg	2 mg	3 mg
Manganese	200 mg		70 mg			150 mg	50 mg
Vitamin A	15,000 IU		15,000 IU	15,000 IU	15,000 IU	22,500 IU	42,000 IU
Vitamin E	4000 IU		2500 IU	1950 IU	750 IU	1250 IU d-alpha	1000 IU
Biotin	20 mg	25 mg	15 mg	20 mg	20 mg	20 mg	5 mg
Yeast?	Yes	Yes	Yes	2 oz	No	Yes	Yes
Added Iron?	No	No	No	No	No	No	No
Soy?	No	No	No	No	No	No	No

Budget Friendly Options							
(not intended to be complete nutrition)							
* can give less or more to suit local forage							
Hay Balancers	Custom Equine Nutrition - Cu/Zn Blend	Yucc' It Up - Hay Harmony	CA Trace - Bulk Copper	CA Trace - Bulk Zinc	CA Trace - Magnesium	Uckele - Just Copper	Uckele - Just Zinc
Cost per day	\$0.30	\$0.65	\$0.03	\$0.07	\$0.09	\$0.05	\$0.07
Serving Size			1/2 tsp *	1 tsp *	1 Tbsp *		
Magnesium					7.9 g *		
Copper	200 mg *	300 mg	254 mg *			310 mg *	
Zinc	550 mg *	900 mg		880 mg *			670 mg *
Biotin		20 mg					
Yeast?	Yes						

(^ Prices may not be current ^)