

## **EPSM (PSSM, EPSSM) DIETS**

Designed by Dr. Beth Valentine with assistance from Drs. Harold (Skip) Hintz, Bob Van Saun, Don Kapper, and Kent Thompson

**Goals:** To provide no more than 15% total daily calories from starch and sugar, and at least 20-25% of total daily calories from fat

### **Forage:**

Either **grass or legume hay** (such as alfalfa) can be fed. Alfalfa hay does not have a high enough starch content to be a concern.

Grain hays such as oat hay and barley hay with remaining seed heads should be avoided.

The amount of forage is not critical - it can be varied depending on whether the horse needs to gain or lose weight. Just do not feed less than 1% of the horse's body weight in forage per day.

Lush spring pasture will be higher in starch and sugar than summer grass, and the amount of dietary fat may need to be increased during this time.

### **Vitamins and minerals:**

**Vitamin E:** At least 1 IU vitamin E per lb of horse per day is important for all horses, especially those not on alfalfa products or green grass for much of the year. You cannot hurt a horse with extra vitamin E.

**Selenium:** About 1-2 mg selenium per 1000 lbs of horse per day is essential in areas that are selenium deficient. Selenium can be toxic at high levels, though, so be aware of all sources of selenium in your horse's diet, and ask your veterinarian to have blood tested for selenium levels if there is any question of selenium deficiency or excess.

**"Broad spectrum" vitamins and minerals:** Horses on fat supplemented diets often will not be eating the manufacturers recommended amounts of fortified commercial concentrated feeds per day. If forage quality is good, most vitamins and minerals will be adequately supplied by forage. For horses on lesser quality forage, hard working horses, breeding horses, and growing horses, addition of a daily vitamin and mineral supplement is important.

**Other supplements:** Hoof supplements, joint supplements, etc. are not a problem when feeding EPSM horses.

### **Fat: EPSM horses need at least 1 lb of fat per 1000 lbs of horse per day.**

Start with small amounts, such as 1/4 cup oil per feeding, and increase by about 1/4 cup every few days. Use the general rule that **two cups of oil = 1 pint = 1 lb.**

**Treats for EPSM horses:** Most EPSM horses are fine with carrots and apples in moderation. Avoid treats with grain or sugar. My horses like Kellogg's Cracklin Oat Bran, which has about 20% calories from fat.

## Specific Diets for EPSM Horses

**\* At the time of this writing there is no feed high enough in fat to provide the proper calorie ratios to EPSM horses without an additional fat source**

In general, aim to feed no more than 5-6 lbs of any feed other than a pure forage based feed per 1000 lbs of horse per day.

**Feed the minimum amount of feed in the bucket that gets the horse to eat the maximum amount of daily fat while maintaining good weight.**

If it takes a small amount of something “sweet” (molasses, carrots and apples, apple juice, peppermint flavoring, a handful of oats or sweet feed, etc.) to get your horse to eat the right amount of added oil early on, this is not a problem. You can aim to decrease or eliminate this small amount of starch and sugar later.

### Examples of very low starch and sugar feeds:

Alfalfa pellets  
Other hay pellets  
Alfalfa cubes - soak in water when adding oil  
Beet pulp, low molasses content - soak in water  
Complete feeds - meant to replace hay if needed  
Dengie or chaff products  
Chopped hay products

### Examples of low starch and sugar feeds\*:

\*In general, feeds higher in protein and fat will be lower in starch and sugar. Ingredients such as soy hulls, beet pulp, bran, wheat brans, and wheat middlings are relatively low in starch and sugar.

Below are examples of low starch and sugar feeds, there are many others. If in doubt, contact the company and ask about starch and sugar content. Look for feeds no more than 33% starch and sugar.

If you can see grains in the product it is likely too high in starch and sugar for an EPSM horse.

Purina Strategy (14% protein – NOT 12% protein)  
Nutrena Compete  
Nutrena Safe Choice  
Blue Seal Hunter, Demand, Vintage Gold  
Senior feeds  
LMF Stage 1  
LMF Complete  
Equi-Pro Carb-Safe  
Platform horse feeds  
Triple Crown Senior, Complete, Growth  
Triple Crown Lite  
Triple Crown Low Starch  
Purina WellSolve L/S and W/C

### Examples of higher fat feeds:

These are examples of feeds that allow addition of less added fat. Most companies suggest using these only as an addition to other feed. For EPSM horses, feed these alone along with good quality forage or a daily vitamin and mineral supplement:

Kent Feeds Omegatin (20% fat)  
Nutrena Empower (22% fat)  
Farmer's Cooperative High Fat Low Carb (20% fat)  
Moorglo (15% fat)  
Rice bran, powdered (20% fat)  
Buckeye Ultimate Finish (25% fat)  
Nutrena Farr XTN (12% fat)  
Re-Leve (about 10% fat)  
Purina Ultium (12% fat)  
Purina Amplify (30% fat supplement)

Calculate amounts of fat fed from these products by multiplying lbs fed per day by the percentage of fat. For example, 3 lbs of Ultimate Finish is  $3 \times 0.25 = 0.75$  lb of fat.

Feeds with 20% or more fat can be supplemented with rice bran (20% fat) to provide additional fat. All other feeds require addition of a 100% fat source.

### 100% fat supplements:

Any salad type vegetable oil, such as soy, canola, corn, safflower, cottonseed, etc. Cocosoya and wheat germ oil are also fine, just more expensive.

Cool Calories dry fat product, by Milk Specialties - 800-323-5424 ext.1156, ask for Catherine Gerardi.

Cool Calories dry fat product, by Performance Horse Nutrition, Weiser, ID 208-549-2323.

Ultimate Finish 100, Buckeye Feeds