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# Nutritional Minute



## Mighty Minerals

**Minerals** are inorganic compounds that serve both as components in body tissue and as catalysts for various body processes. Calcium and phosphorus are perhaps the most recognizable macrominerals. As with all minerals, they are vital to your horse's well-being.

### Calcium (Ca):

- Makes up 35% of bone structure
- Supports proper muscle contractions
- Plays a role in blood clotting

### Phosphorus (P):

- Makes up 14% to 17% of bone structure
- Supports energy transfer reactions
- Plays a role in the synthesis of certain proteins

Calcium and phosphorus must be provided in the appropriate ratios. Diets with more phosphorus than calcium can result in decreased absorption of calcium, which can cause skeletal malformation. A calcium-to-phosphorus ratio of between 1.2:1 and 2:1 is ideal.

### Ca and P levels in common feedstuffs

- Grasses and hays, especially legumes (alfalfa and clovers), are typically higher in Ca than P
- Plain grains (oats, wheat, rice) are typically higher in P than Ca
- Fortified commercial concentrates (sweet feeds or pellets) are typically balanced for calcium and phosphorus; check the feed tag for the exact ratio
- Supplements may or may not be balanced for calcium and phosphorus, so read labels carefully and follow manufacturers' directions

### Your calcium-to-phosphorus ratio might be out of balance:

- If you feed a grass hay that is low in calcium
- If you feed large amounts of plain grains, like oats or wheat and rice bran
- If you don't feed the recommended amount of fortified commercial concentrate

### What you can do to ensure your horse's Ca:P ratio is correct:

- Test your hay for calcium and phosphorus
- Feed commercial concentrates at recommended levels; when feeding less than recommended, consider adding a balanced mineral supplement to the diet
- If you feed plain grains and grass hay, get your ration tested; you might need to add a Ca supplement to your horse's diet
- If you feed rice bran, choose one that is balanced for Ca:P
- Read supplement labels carefully to avoid over-supplementation
- When in doubt, consult your veterinarian or equine nutritionist

**EQUI-  
JEWEL**

**Stabilized Rice Bran**

All natural ingredients  
Balanced Ca: P ratio  
High in fat, low in starch

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