

## **JOHN'S CORNER**

### **ORGANIC FERTILIZERS AND NUTRIENTS 32: HOOF AND HORN MEAL**

*by John Ferguson*

I remember years ago when I traveled internationally while working in the oil industry and visiting many countries from Europe to Pakistan and South America there was a widely used organic fertilizer that we do not see very often in our area. It was horn and hoof meal.

The hoofs from cattle are soaked in water until they become spongy and can be removed from the bones. After removal they are spread into the sun to dry. Next the horns are dried in the sun until the pith is dried and can be removed by hammering it. Now the hoofs and horns are combined and put into a digester where they are steam cooked for 7-10 hours at temperatures over 110 °C. After cooking the material is dried and finely ground into various grain sizes for use.

This meal can naturally be as high as 14-2-0 (N-P-K) hence is one of the most nitrogen rich organic fertilizers.

This meal has a lot of keratin, a complex protein which is very resistant to the mineralization process (decomposition). Hence it takes about 3-4 weeks for the nitrogen and other nutrients to start releasing slowly over a long time (10-12 months). There is also small amounts of calcium (Ca) and magnesium (Mg) along with some other nutrients also in very small amounts.

Usage varies based on the gardeners goal, but 5-7 ounces per square yard of flower bed is common. Many gardeners like to use this meal since when applied in early spring, the nutrient release curve in the soil matches exactly the plants growth requirements as the soil and weather warms up.



[www.natureswayresources.com](http://www.natureswayresources.com)

**SUMMARY:**

Hoof and horn meal is a natural organic fertilizer we should be using more of in general. It is also ideal for the Lazy Gardener whom only wants to fertilize only one time for the entire growing season.

**PROS:**

- excellent source of slow and long acting nitrogen
- often used as an ingredient in organic fertilizers
- renewable resource
- many brands available
- excellent slow release nitrogen source for a compost pile
- does not pollute waterways
- rich in amino acids and proteins
- sometimes used in animal feed
- helps form humus in the soil better than other nutrient sources
- works especially well for large green leafy plants
- does not burn plants
- readily available online

**CONS:**

- nitrogen slowly available
- does not contain significant amounts of other nutrients
- may be dusty
- limited availability.