



## For Ruminants

Imagine Zeolite presents a 100% environmentally friendly additive to Ruminants that provides the same results with fewer side effects to your animals.



## Uses

### FEED

This is the most effective point of addition. Many farms have eliminated most of their odor and realized greater animal health, welfare, and production by feeding between ½ to 2% Zeo-Feed of the total ration on a weight basis. A 14 x 40 or -40 mesh product should be fed in mash or a -100 mesh should be used to pelletize supplements.

### BEDDING AREA

A thin layer should be applied to the bedding area or to the area that receives the manure each time it is cleaned out.

### COMPOST OR DRY STACKED MANURE

The compost or dry stacked manure should be "top dressed" with a thin layer of Zeo-Feed after it is turned or after the addition of a new layer of manure is added.

Alternatively, a layer of Zeo-Feed should be placed in the area of the barn receiving the fresh manure. Composting is an important process that

- Converts organically bound nitrogen that is not plant accessible to ammonium hydroxide, ammonium nitrate, and ammonia that are plant accessible
- Kills the pathogens
- Reduces or eliminates the odor
- Dries the manure
- Reduces the flies
- Kills weed seeds.

Composting should be conducted "in vessel" to prevent groundwater and air pollution. Wash down operations are no longer environmentally acceptable due to groundwater pollution of nitrates, nitrites, and hydrogen sulfide.

### INCREASED NPN FOR RUMINANTS

Ruminant animals such as cows, beef cattle, sheep and goats require proteins from the food they eat. In order to aid with this process, non-protein nitrogen (NPN) has been added to feed to enable the transformation of ammonia into amino acids, into proteins, to occur more easily. However, large amounts of NPN results in

- Bloating
- Laboured breathing
- Lack of coordination in the animals

These symptoms occur due to the increased ammonia levels the NPN creates, altering the acid-base levels in the animal's blood

Adding Zeo-Feed to the mix can allow for 4 to 6 times more NPN to be used by absorbing much of the ammonia NPN creates. The mineral then acts as a reservoir and slow release mechanism of the nitrogen for more efficient digestive functions.

Zeo-Feed also has myco-toxin binding capability as well as the ability to adsorb heavy metals that can be toxic to the animals as they bioaccumulate into high doses.

## Benefits of Zeo-Feed in Ruminants

### Zeo-Feed ADDS VALUE TO MANURE AND COMPOST

The introduction of Zeo-Feed with the manure, compost, or lagoon water to the soil has the added benefit of increasing water retention, holding the nitrogen and other micro-nutrients in the growth zone, providing a medium for the future capture of nitrogen, increasing the ion exchange capacity of the soil, provides potassium and calcium, and enhancing infiltration and aeration of the soil. Zeo-Feed is a value added soil amendment that should be advertised.

### INCREASED ANIMAL WELFARE

Greater animal health creates better animal welfare, better products, greater production, and lessens the usage of antibiotics and medicines that may have lasting adverse effects to the human population.

### GROUNDWATER POLLUTION CONTROL

Fixing the nitrogen and various heavy metals reduces the pollution of the groundwater.

### ODOR CONTROL

Increasing legislation is mandating the control of odor. The most effective way to control odor is to feed Zeo-Feed in quantities of ½% to 2% of the total ration. The Zeo-Feed exchanges the ammonium cation in the alimentary track before it gases to ammonia and creates odor.

### MYCOTOXIN BINDING

The use of Zeo-Feed and other zeolites as myco-toxin binders is not recognized by the USDA in the United States. Nevertheless, the effectiveness of zeolites as myco-toxin binders is recognized in many other countries. Literature and studies are pervasive in the United States.