



## Animal Feed Application

### Direct Benefits

½-2% weight of food rations helps:

1. Increase weight gain
2. Decrease conversion rate (less feed required per pound of grain)
3. Improves bone density and growth
4. Reduces manure odor
5. Improves value of milk and meat
6. Increases the number of gradable eggs



### Indirect Benefits

1. **ODOR CONTROL**  
Zeo-Feed exchanged the ammonium cation in the alimentary track before it turns into the gaseous form, ammonia, which creates odor. With the increasing legislation mandating odor control, adding Zeo-Feed in quantities of ½-2% of the total ration will aid in the company's ability to abide by these laws
2. **REDUCED MORTALITY**  
Continuous feeding of zeolite often results in greater animal longevity.
3. **IMPROVED FEED CONVERSION AND PRODUCTIVITY**  
Feeding zeolite typically results in greater food conversion rates allowing animals gain weight faster with less food and poultry to produce more gradable eggs.

It also aids in the exchange of calcium in dicalcium phosphatse and other phosphate sources which increases the solubility and utilization of phosphate in bones. This process can reduce feed rations of dicalcium phosphates by up to 50%.

#### 4. **FLOW AGENT/ANTI CAKING AGENT**

Zeolite helps as a flow agent and anti-caking agent with urea and other oils.

#### 5. **INCREASED PELLET DURABILITY**

Zeo-Feed allows higher temperatures at the pellet mill that reduce friction and allow higher production rates. The increased temperature enhances gelatinization and creates a more durable pellet.

#### 6. **REDUCED NECESSITY FOR ANTIBIOTICS**

The use of zeolite in animal feed increases gain and productivity. Antibiotics are not needed to increase gain. In Europe where zeolite is commonly fed, antibiotics are not used.

#### 7. **ACTS AS A BUFFER IN THE RUMEN**

Reduces acidosis especially when pellets are fed where the fiber has been partially destroyed.

#### 8. **Zeo-Feed ADDS VALUE TO MANURE AND COMPOST**

The introduction of Zeo-Feed with the manure or compost into 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, providing potassium and calcium, and enhancing infiltration and aeration of the soil.

#### 9. **INCREASED ANIMAL WELFARE**

Overall improvement of bowel movements, ion exchange and chemical processes generates healthier animals that then generate better products and increased production.

#### 10. **GROUNDWATER POLLUTION CONTROL**

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

#### How it Works

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.