



Agriculture Application

Two Basic Principles

Zeo-Feed has two methods of holding cations such as ammonium, and plant nutrients. The first method is by absorption in channel ways. Zeo-Feed will hold up to 55% of its weight in water.

The second method is by "cation exchange" (measured as cation exchange capacity or "CEC"). By this method, Zeo-Feed holds ammonium and other plant nutrients in the crystal structure where they are not water-soluble but are plant-accessible on an as-needed time-release basis.



Applications

ANIMAL FEED

A -40 and -14X40 mesh products are fed to animals and poultry. It has the following advantages;

1. Increased NPN for ruminants
2. Odor control
3. Reduced mortality
4. Improved feed conversion and production
5. Better phosphate utilization
6. Flow agent/anti caking agent for food stuffs
7. Reduced need for antibiotics
8. Buffer in the rumen
9. Reduced acidosis
10. Increased pellet durability for pellet feeds

CARRIER FOR PESTICIDES AND HERBICIDES

Zeo-Feed in a minus 40 or 100 mesh size or even finer is used as a carrier for pesticides and herbicides due to its porosity.

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.

SOIL AMENDMENT

- It reduces the amount of water needed for irrigation by up to 35%.
- It holds the moisture in the growth zone.
- It holds nitrogen in the growth zone. By virtue of its high CEC, it holds much of the nitrogen so that it is plant accessible but not water-soluble.
- Since 30 to 35% of most nitrogen fertilizers leach through the growth zone and report to the aquifer, it reduces the nitrogen fertilizer requirement.
- It will recharge itself with nitrogen from rainwater and subsequent fertilization application and will hold it in the growth zone.
- It helps prevent compaction, increases infiltration, and helps the aeration of deep root systems due to its high surface area and porosity.
- Compared to other domestic zeolites, Zeo-Feed has a higher CEC which allows the greater loading of plant nutrients such as nitrogen and micronutrients such as magnesium, sulfur, zinc, iron, manganese, boron, molybdenum, copper, chlorine; contains approximately 3.5% potassium which is a plant nutrient; contains very low sodium which is toxic to plants; has very little clay; and has a clinoptilolite content of 80 to 90%.
- Zeo-Feed is 100% natural and when composted with manure, it becomes a "natural fertilizer."
- Zeo-Feed will hold nitrogen and will help prevent the pollution of the water table by nitrates and nitrites.
- It is pale green in color unlike many zeolites that are white, and it visually blends into lawns, greens, and tees better than white material.

FERTILIZER

Zeo-Feed can be ammoniated naturally with manure for the qualification of "organic grown" or artificially with ammonium nitrate, ammonium sulfate, urea, or other nitrogen sources. It contains approximately 3.5% potassium. Phosphate can also be added.

WATER POLLUTION CONTROL

Zeo-Feed absorbs ammonium and ammonia gas to reduce the conversion of the nitrogen to nitrates and nitrites that cause water pollution.

PELLET BINDING

The use of up to 2 % zeolite allows the pellet mill to be run at higher temperatures. This reduces friction, increases production by up to 35%, and increases gelatinization to make a more durable pellet.

FLOW AGENT

Zeo-Feed helps dry materials and enhances the flow ability of feeds from bins, chutes, and trucks.