



ALL-NATURAL KMI ZEOLITE

FOR ANIMAL FEED, DAIRY & COMPOST



FEED ADDITIVE

Zeolite is used widely by livestock farmers as an animal feed additive for beef cattle, dairy Cows, Swine, poultry (broilers & egg production), and sheep. Since Zeolite is the World's only naturally occurring, negatively charged, mineral a great number of benefits in the feed process can result from the basic chemistry of the zeolite as an animal feed additive.

Many animals such as hogs and poultry need preformed protein from plants and animals. Ruminant animals such as dairy cows, beef cattle, sheep, goats, etc have microorganisms in their first stomach (rumen) that make protein from simple nitrogen compounds. They convert the non-protein nitrogen (NPN) to ammonia and then convert the ammonia to amino acids, which are then converted to proteins.

When zeolite is included in animal feed it adsorbs most of the ammonia generated from the NPN. It acts as a reservoir and slow release mechanism for the nitrogen. This can allow the feeding of up to 4 to 6 times more NPN. During rumination, a portion of the contents of the first stomach is returned to the mouth for additional chewing and saliva additions. Saliva introduced during mastication contains sodium which replaces the ammonium. This results in a slow release of the un-reacted ammonia which is then converted to protein amino acids by the microorganisms. Zeolite can also reduce dicalcium phosphate by up to 50% therefore providing a health benefit and pollution prevention.



STALL FRESHENER

Research shows that natural zeolites can reduce ammonia levels in environments occupied by horses and livestock. Veterinarians have linked ammonia levels to compromised respiratory systems because of the stress it places on respiratory tracts and mucous membranes.

Ammonium in liquid and solid wastes is constantly undergoing conversion to ammonia gas. Zeolite controls odors and vapors by absorbing moisture from waste and adsorbing the ammonia produced by microbial activity on the liquids.

In barns and stalls, foul-smelling gases latch on to dust particles that have a positive molecular charge. Zeolite molecules have a negative molecular charge, so they act like magnets to attract dust particles, thus helping clear the air of odors as well as dust. Trainers have found that placing an open-topped container of zeolite near stalls helps to absorb odors and dust in the air.

To control odors between cleanings, zeolite can be sprinkled on observed wet spots or excrement.

Zeolite is nontoxic to staff and horses or livestock; it does not cause harm if it is ingested, touches the skin, or comes into contact with the eyes. The mineral is nonflammable, environmentally friendly, and can be safely handled around water and feed with bare hands, which is especially nice for those who suffer from chemical sensitivity.



MANURE COMPOST

Livestock production creates billions of metric tons of solid and liquid waste each year . The accumulation of feces and urine pose health risks to humans and animals, while also creating an unpleasant environment in which to live and work.

The digestive process and animal excrement can produce methane, carbon dioxide, and sulfur compounds. Zeolite controls odors by absorbing moisture and gasses associated with compost.

Researchers have identified 3 main benefits of zeolite in compost:

1. Zeolite promotes nitrogen retention in animal waste by adsorbing ammonia. Manure mixed with zeolite serves as a high-quality fertilizer because plant-available nitrogen is retained and returned to the soil.
2. Zeolite controls moisture content in excrement through its water absorption properties.
3. Zeolite absorbs and captures ammonia, methane, carbon dioxide and other gasses.

Adding between 50 - 80 g per kg of zeolite can retain up to 80% percent of nitrogen in manure compost.

Adding 6 - 7% percent zeolite to barn-stored dairy slurry can reduce ammonia emissions by 55% percent when compared against untreated slurry. Also, soluble phosphorus levels in the slurry can be reduced, which has positive environmental implications.

FEED & APPLICATION RATES



FEED ADDITIVE		RATE
	Dairy Cows & Cattle	5 oz per day
	Calves	2 oz per day
	Chickens	0.5 - 2% feed weight
	Turkeys	0.6 - 2% feed weight
	Hogs	1% feed weight
	Sheep	0.1% feed weight
	Horses	1% feed weight
STALL FRESHENER		
		1 lb per square foot
COMPOST		
		2 - 5% by weight

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