



Zeolite Premier Turf

Your Solution For

- Conservation of water and electricity
- Increased efficiency and reduction of fertilizer
- Reduction of pollution
- Improved general appearance
- Playability of turf



100% NATURAL, SAFE and NON-Toxic. Offers more benefits than other soil amendments at less than half the cost!

Photo by Star from Pexels

USES

In recreational (turf grass) and athletic field management, clinoptilolite has proven to be very beneficial. Zeolite Premier turf acts as a sponge reservoir for nitrate, phosphate, and potassium nutrients - the most important elements for plant health and growth.

Zeolite Premier turf holds these elements in the fertilizer in its crystalline structure until the roots seek them. When plant root action, or water leaching, depletes soil nutrient levels, the zeolite reservoir then releases sufficient nutrients to satisfy the plant roots demands. Unlike so-called "water resistant" fertilizer treatments, the zeolite-held fertilizer is NOT affected by rain, even over long time periods. Then, much LESS fertilizer is used as compared to application without zeolite. Excess fertilizer components, particularly nitrates and phosphates, do not enter the local aquifer during runoff.

Zeolite Premier Turf improves plant growth and significantly lowers the cost of acreage management while being environmentally friendly. It is especially beneficial in sandy soils.

BENEFITS

- Increased water retention (less irrigation)
- Improves drainage
- Improves traffic tolerance
- Speeds up turf and grass establishment
- Improves aeration
- Captures and regulates nutrient release
- Increases phosphorous utilization
- Decreases NH₄⁺ and N leaching
- Reduces fertilizer usage
- Balances soil pH
- Breaks down clay lumping

PRODUCT DESCRIPTION

Mineral:	Clinoptilolite
Size:	12x30 Mesh
GRAS:	21 CFR part 182.2729, 40 CFR part 180.1001
COLOR:	Off White
MOISTURE:	Retains 60%
SURFACE AREA:	25 sq meters/gm
POROSITY:	High
CEC:	160-180 meq/100gm
WEIGHT:	55lbs/cubic foot

APPLICATION

We supply Zeolite Premier Turf in accordance with USGA specifications for root zone building.

Representative Usages

- TOP DRESSING: 30-75lbs/1000sq. feet
- AERIFIATION: 60-200lbs/1000sq. feet
- ROOT ZONE CONSTRUCTION: 10-20%by volume of sand strata. For the first year, usage should be at the high end of range. Specific quantities at a given site will depend on soil properties, such as CEC (Cation Exchange Capacity.)* To avoid dehydration, thorough irrigation must follow the simultaneous application of the zeolite and fertilizer.

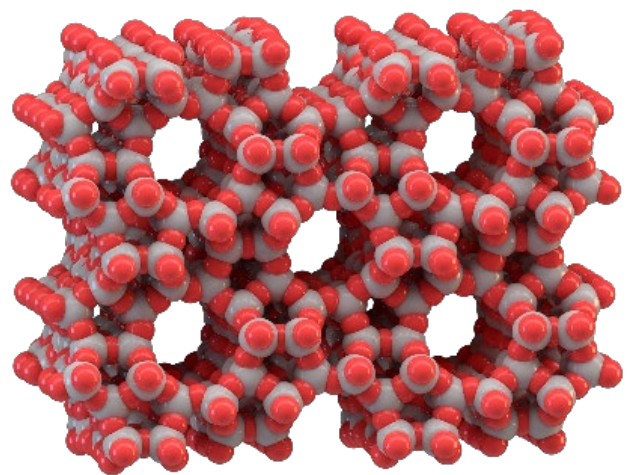
Zeolite application has been shown to increase root zone CEC. Zeolite Premier Turf Application rate recommended will provide a CEC increase of approximately .15 meq per application. The average green area is approximately 5400 sq feet.



HISTORY

Zeolite Premier turf is a natural zeolite soil amendment offered by Zeolite Premier turf. The natural form of zeolite was first described in 1756 by the Swedish researcher A.F. Axel. Worldwide, there are over 180 different forms, about 80 of which are naturally occurring.

Zeolites are formed when volcanic ash and aluminosilicates of alkaline and alkaline earths either settles into lakes or water percolated through the ash beds. In either case, this chemical reaction between water and volcanic ash results in the natural formation of zeolites. Different depositional environments (temperature, location, ash/ water) present during formation explain why each natural zeolite has its own unique properties. The clinoptilolite, a crystalline form of zeolite, is a sub-group. It is perhaps the most unique and widely used.



(Zeolite Molecular Structure) Thomas Spletstoesser (www.scistyle.com), CC BY-SA 4.0
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Further, the Al and Si from the ash deposit are arranged in a three-dimensional, cage-like lattice structure. This honeycombed framework resembles a microscopic sponge, with numerous pockets or spaces and consistent diameter interconnecting channels. Zeolite has up to 10 times the internal surface area of quartz with 100% pore space permeability for water retention.

SCIENCE

- A. Absorption of water and nutrient by cation exchange (it has a negative charge of 3). It is held in the lattice where it is not water soluble until released by plant uptake demand. Nutrients are "held" in the root zone where they are accessible. Most conventional nitrogen fertilizers leach between 30-60% into the water table and pollutes the aquifer.
- B. Absorption of up to 60% of its weight in water and nutrients and holds it in the growth zone as an excellent drought solution.

Potassium-calcium-Sodium-Alumina Silicate (K, Ca, Na) $2\text{OAl}_2\text{O}_3 \cdot 10\text{SiO}_2 \cdot 6\text{H}_2\text{O}$. The crystal grid is 4 Angstrom

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