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### Natural Zeolite

Zeolite is aluminosilicate material from volcanic rock. It composes of modennite and clinoptiolite. It has the properties of absorption and ion exchange.

In agriculture, clinoptilolite (a naturally occurring zeolite) is used as a soil treatment. It provides a source of slowly released potassium. If previously loaded with ammonium, the zeolite can serve a similar function in the slow release of nitrogen. Cuban studies in the emerging field of "zeoponics" suggest that some crops may be grown in 100% zeolite or zeolite mixtures in which the zeolite is previously loaded or coated with fertilizer and micronutrients. Zeolites can also act as water moderators, in which they will absorb up to 55% of their weight in water and slowly release it under plant demand. This property can prevent root rot and moderate drought cycles.



A potting soil with 12% clinoptilolite was shown to harvest morning dew and return it to the plant roots for reuse. The same bed was able to grow a Jerico strain of leaf lettuce in a sub tropical climate without external water and daytime temperatures exceeding 85 °F. This produce did not bolt and went full term before setting seeds. It also has been shown that certain zeolites can reduce nitrates and nitrites to more plant usable free nitrogen by ion exchange.

## Function & Benefits:

#### <u>Aquaculture</u>

- Provide oxygen-enriched air to reduces risk of fish or shrimp disease and mortality
- Promotes clean, healthy water and reduced water usage
- With its cation-exchange capacity is able to remove toxic ammonia, phosphorus and other unwanted compounds from the recirculating water
- Contain both Macro and Micro Nutrients and suitable for use on feed additives
- Odor control
- Absorb bacteria, suspended solids, waste and dirty materials produced from unutilized feed, dead plants, fish, etc
- Stabilise the pools pH level

#### **Agriculture**

- Increase Cation Exchange Capacity (CEC) of the soil
- Increase fertilizer efficiency and reduce nutrient leaching, reduce to
- Assure a permanent water reservoir, providing prolonged moisture





# **Applications:**

# Shelf-life, Storage:

100 - 250 kg. / hectare

2 years in cool dry place

NOTE : Use in aquaculture and agriculture industry