

Ecolite™

Physical Soil Amendment

EARTHWORKS NATURAL ORGANIC PRODUCTS, INC.

"Ecolite is an integral part of both our maintenance and reconstruction programs. We use it on soil greens and tees to help porosity, and on our sand-based sites to increase holding capacity. We have seen improved rooting, drainage, and it has helped build potassium levels where they were weak."

John Chassard
Lehigh Country Club, Allentown, PA

Ecolite is a zeolite mineral and has the highest CEC of all physical soil amendments on the market. The CEC value of **Ecolite** is around 200 me/100g as compared to 40 me/100g for comparable calcined clay and diatomaceous earth products. This is a naturally occurring mineral that is mined, crushed and screened to an ideal particle size. It has a low bulk density of about 1,300 pounds per cubic yard, as well as a unique, rigid crystalline lattice structure. This porous structure enables the product to retain and slowly release water and nutrients into the root zone. Research at Cornell University showed that when **Ecolite** is mixed with a USGA-type sand at a 10 percent rate, the CEC of the mix is more than 160 times greater than sand alone. In effect, it makes all fertilizer applications "slow release." More of the applied nutrients end up being used by the grass plant, surge growth is diminished, and the turf grows more consistently.

One of the greatest advantages of **Ecolite**, next to its CEC, is its ability to hold and release both potassium and ammonium. It adsorbs and releases these two primary nutrients with a 100-to-one preference over calcium and magnesium and a 50-to-one preference over sodium. Potassium can now be held on the soil colloid and released to the plant in both heavy soils and sand based mixes. This mineral is used for many commercial filtration products because of its ability to hold ammonium. In soil applications, this means better nitrogen holding capacity and more available nitrogen. Holding the ammonium molecules in the soil, without leaching, allows nitrogen to go through nitrification more efficiently.

Ecolite will help build air porosity in the tightest soils. The effectiveness of **Ecolite** in managing air/water relations in the root zone produces two major benefits. The low bulk density, high percolation rate and increased aeration porosity significantly reduce waterlogged, anaerobic and "black layer" conditions. Its ability to hold and release plant-available water dramatically reduces the incidence of "hot spots", or localized dry spots. Both sand and soil benefit from **Ecolite** when it comes to air movement through the soil.



EarthWorks 
NATURAL ORGANIC PRODUCTS

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Available in 50 lb. bags and 2000 # Super Sacks.



PHYSICAL AMENDMENT

Highest CEC

Holds Potassium

Retains Water

Creates Porosity

Holds
Ammonium

EcoliteTM Physical Soil Amendment

SIMPLY THE FINEST QUALITY TOP DRESS YOU CAN CHOOSE

Most physical amendments help with air and water management. **Ecolite** takes it to the next level, providing many more benefits, including very high CEC, as well as a potassium and ammonium holding capacity. The ideal particle size of **Ecolite** and its high CEC nutrient retention makes this mineral the perfect amendment when aerifying and for construction. As a construction amendment, **Ecolite** can build a level of holding capacity that sand cannot. Building CEC in sand based soil mixes is very important and will help to buffer the high leaching factors of both nutrients and water. In soil mixes, **Ecolite** will provide air porosity, manage water and help hold potassium and ammonium. When compared to the other inorganic amendments and top dress products on the market, there is no better choice than **Ecolite**.

SUGGESTED USE:

Aerification:

1. Verti-cut (if desired)
2. Core aerify (1/2 or 5/8 inch tines are best) Remove the cores.
3. Apply Ecolite at the approximate rate of 50-100 pounds per 1000 sq. ft.
(Note: as top dressing techniques, equipment, and turf conditions vary, it is recommended that the first green be completely finished before starting others. This will make it possible to determine exact application rate needed.)
4. Drag with keystone mat to fill holes and provide light, even top dressing.
5. Thoroughly irrigate immediately.
(Ecolite at this rate will draw water from the soil surface.)

Light Top Dressing:

1. Verti-cut or spike.
2. Apply Ecolite with a spreader capable of handling sand at the rate of 10 to 25 pounds per 1,000 sq. ft. or until desired coverage is achieved.
3. Drag lightly.
4. Thoroughly irrigate immediately.
(Ecolite at this rate will draw water from the soil surface.)

New Construction & Renovation:

Ecolite is an ideal construction amendment to help improve CEC, turf establishment, soil structure and long-term performance. Rates vary up to 1000 lbs./1000 sq. ft. of soil surface, tilled into the soil to an 8 inch depth. Please call for detailed construction programs and consulting customized to your project.

NOTE: When you add Ecolite to your soil, you are adding a reservoir for the storage of water and nutrients. It is strongly recommended that all applications be done in conjunction with a closely balanced fertilization and a thorough irrigation to achieve full benefit from Ecolite's unique capabilities.

