

Leonardite



Long ago, there were oceans. These oceans were full of organic matter (in the form of plants, animals, and microscopic organisms). Over time, these oceans dried up, and the organic sediment was buried under layers of soil and rock. Some of these sediment layers were exposed to pressure and heat and became coal. Those that weren't became Leonardite

Leonardite, after mining, has a pH of about 3.5. You raise the pH of the Leonardite with the addition of a base such as NaOH or typically - vinegar, which changes the reactivity of the Leonardite! It makes the material soluble

Benefits:

- Environmentally friendly and does not pollute
- Powder that is soluble and has good residual
- Chelates metals from the soil
- Aids in transport of micronutrients into plant tissues
- Will improve soil structure and increase nutrient absorption
- Will increase production of proteins and nucleic acids
- Will stimulate photosynthesis
- Loosens compacted soil and enhances plant feeder root fertility.

Because it is, in essence, made of ancient plants, Leonardite is also an excellent all-around source of organic matter!

Leonardite Characterization:

Humic Matter: Humic matter is complex organic molecules formed by the breakdown of organic matter as well as being a class of compounds with variable structure, functionalities and reactivities

Applications:

- Dust lightly without caking
- Apply every 2 – 3 months or 4 times a year or more as needed.
- Water in after top dressing
- Can be applied with other products

Directions:

- ✓ Blending: Apply at a rate of 300-500 lbs. per acre
- ✓ Bed Preparation: Apply a band of Leonardite the width of the bed at a rate of 150-300 lbs per acre
- ✓ Potting Soils: Incorporate ¼ lb per 4 cu. ft. of potting soil
- ✓ Sod, Lawns, Golf Courses, Recreational: Apply 20 lbs per 1,000 sq. ft. to a depth of 6 inches
- ✓ Golf Greens & Tees: Apply 7-9 lbs per 1,000 sq. ft.
- ✓ Tree Planting (Citrus): At time of planting, incorporate ¼ lb per acre per tree into the backfill
- ✓ Citrus Trees showing Blight symptoms: Apply in the root area at a rate of 1 lb per tree
- ✓ Potted Plants: 4-8" pots = 1 Teaspoonful OR 8-12" pots = 2 Teaspoonfuls
- ✓ Flowers, Fruit, Vegetables and Shrubbery: 1 lb per 100 sq. ft. OR use at a rate of 8 lb per 1,000sq.ft. – Use drop or lime spreader.
- ✓ Trees: Use ½ to 1 pound per inch of trunk diameter around drip line.
- ✓ Lawns Dry Application: Use 5 to 10 pound per 1000 sq.ft. using drop spreader or lime spreader.

Humic Matter Characterization:

Three types of organics are identified in Leonardite. They are

1. Fulvic Acid (7%)
2. Humic Acid (85%)
3. Humus (8%)

Please note that although the percentages are as listed – that does not mean that it is 100% available to the plant. A percentage goes to improving soil structure.