

# Replenish Min-Phos

EARTHWORKS NATURAL ORGANIC PRODUCTS, INC.

**Replenish Min-Phos** is a blended rock phosphate based biologically active nutrient source. Both hard rock and soft rock phosphate along with dry humic acids are blended with **Replenish** compost and then prilled to create a high phosphorous product that is easy to use and spread. Hard rock phosphate is a very sustainable rock mineral that provides an effective slow release form of phosphorous. It is also rich in calcium and a host of trace nutrients, including carbon. Recent studies have suggested that rock phosphates may be as available as more soluble forms of phosphate when nutrient tie-up is taken into account. In fact, soluble forms of phosphates often start by acidifying rock phosphates but these soluble materials are very reactive and tie up quickly, especially in high calcium or high magnesium soils. **Min-Phos** also provides the advantage of soil re-mineralization that not only will help with soil structure but will aid in the proliferation of beneficial bacteria.

Soft rock phosphate is a colloidal form of rock phosphate and is available over a much wider spectrum of soil pH including pH's over 7.0. As is true with hard rock phosphate soft rock is not all immediately available but does release in the presence of the organic acids released by the plant in the rhizosphere. This process allows the plant to take up phosphorous when it is needed most. Rock phosphates are from deposits of apatite formed ages ago by sea life that left behind fossils and shells composed primarily of calcium phosphates. Accumulations that took millions of years to produce, subjected to millions of tons of pressure created sedimentary rock that, when discovered in the Southern United States, became known as one of the richest phosphate deposits in the world. Most of the phosphates used for fertilizer production are refined from this source.

Humic acids are powerful chelating agents and very carbon rich providing a sustainable food source for microbial populations in the root zone. Combine this with the rich available carbohydrate of the **Replenish** compost and an aggressive bioactivity is created. The combination of the compost and humic acid carbon sources with the rock phosphates create a very bioactive product that naturally allows for the release of the phosphorus.

**APPLICATION RATES:** \*\*Applications of **Min-Phos** should be based on a qualified soil testing program.

**Greens & Tees** – 10 lbs. per 1000 sq. ft. on turf at time of aerification.

**Fairways and Sports Fields** – 450 lbs. per acre at time of aerification.

**Tree and Shrub Transplants** – Apply 1-2 lbs. per plant around the root ball and work into the soil.

**Flower Beds and Gardens** – Apply 1-2 lbs. per 100 sq. ft. worked into the soil.

**EarthWorks**<sup>TM</sup>  
Natural Organic Products

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Available in 50 lb. bags.



## SOIL AMENDMENT

*Hard Rock  
Phosphate*

*Soft Rock  
Phosphate*

*Humic Acid*

*Replenish  
Compost*