

# **Construction Program**

"You save five years of work in the first month"









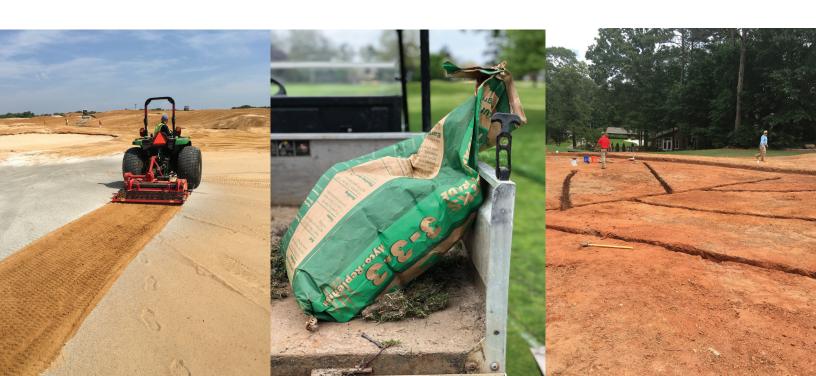
# **The EarthWorks Construction Program**

Golf course greens construction mixes are typically soil-less mediums with limited carbon, so EarthWorks asked the question "what does a soil have that a soil-less medium doesn't have?" We broke it down into three sections: a nutrient holding capacity (CEC), an organic matrix, and a mineral base. Starting with the need for a good nutrient holding capacity, typically very low in sand mixes, we added Ecolite, a zeolite mineral. Then we built an organic and mineral package to feed both the plant and soil microbial populations. The EarthWorks construction mix has been part of hundreds of construction projects since the mid 1990's.

The holding capacity comes from **Ecolite** that has a CEC three times higher than other common physical amendments. **Ecolite** manages moisture in the soil, first holding it then making it available to the plant. It creates soil porosity, and it acts as a reservoir for both potassium and ammonium nitrogen.

The backbone of the EarthWorks Construction program is **Renovate Plus**, which supplies both an organic and mineral base to the construction mix. To mimic a soil, we built a product that has a dynamic complex organic matrix, one that feeds soil microbes, grows strong, deep roots, helps to mobilize nutrients, and builds moisture holding humus. The mineral component of **Renovate Plus** provides the plant with most of the nutrients it needs during the grow in process and for years to come. The Plus in **Renovate Plus** is Ecolite which makes up 50% of the product and rounds out the perfect construction amendment mix.

**Myco Replenish** is the final step to the EarthWorks Construction Program. The addition of a mycorrhiza inoculant to the surface of the growing environment significantly helps build the root system quickly, moving roots deep into growing medium providing the plants with nutrients and water. Mycorrhiza is very effective at finding and providing the plant with phosphorus especially important during a grow in operation. They are also very important in the formation of soil glomalin a material in the soil that helps to keep the soil friable and helps to fight hydrophobicity.





### **RENOVATE PLUS**

Renovate Plus is an advanced establishment, and recovery, amendment product. It mimics a soil in a soil-less medium providing the new growing mix with a holding capacity, CEC, and an organic and mineral base that allows for a quick establishment of deep strong roots. By building a carbon rich root zone less nitrogen will be needed through the grow in process, resulting in less thatch to manage later and a stronger stand of turfgrass.

**Derived from:** dry meal products, compost, rock phosphate, greensand, sul-po-mag, calcium carbonate, humic acids, 50% zeolite (Ecolite)

# **ECOLITE**

Ecolite is the premier zeolite mineral. A potassium silica that is mica like in structure which allows for strong moisture management. It has an affinity for both potassium and ammonium nitrogen, holding both in the root zone for potential plant uptake. Ecolite is the main component of Renovate Plus but ideally a little more Ecolite is added to the construction program to ensure the strongest holding capacity possible. This additional zeolite also provides a needed potassium reservoir so important in sodium rich soils.

Derived from: zeolite mineral

### **MYCO REPLENISH**

Myco Replenish is an OMRI Listed organic product focusing on mycorrhiza fungi inoculants. Mycorrhiza fungi has been proven to quickly establish strong root systems in any soil mix. Mycorrhiza enters the plant root system pulling in both water and nutrients especially phosphorus so important for the establishment of new turf. Myco Replenish is applied to the surface of the soil and lightly raked in at time of seeding or sod establishment.

**Derived from:** Composted poultry manure, Endo/Ecto Mycorrhizae, humic acids

# **PROGRAM SUGGESTIONS**

There have been many successful EarthWorks amendment programs used by different turf managers. The following suggestions are an average. If you have a quick opening date adding more investment to your grow in amendments will ensure that your project is as successful as possible. The simple answer is to use as much as you can afford. You can save five years of work in the first month.

For more detailed information please contact an EarthWorks Agronomist.

Ideal Program for golf and sports turf construction:

350 lbs. of Renovate Plus per 1000 sq. ft. @ 6 inch depth 150 lbs. of Ecolite per 1000 sq. ft. @ 6 inch depth 25 lbs. of Myco Replenish per 1000 sq. ft. @ 1 inch depth

Ideal Program for "No Till" operations:

150 lbs. of Renovate Plus per 1000 sq. ft. @ 3 inch dept with planting 50 lbs. of Ecolite per 1000 sq. ft. @ 3 inch depth with planting 15 lbs. of Myco Replenish per 1000 sq. ft. @ 2 inch depth with planting

# **Carbon Balanced Grow In Program**

Use Replenish 5-4-5 and/or Replenish 10-2-5 for 50% of the nitrogen used during the first ten weeks with the goal to cut back the total nitrogen applications to as low as only a few pounds. This will balance the carbon to nitrogen ratio and help to reduce thatch build so common in grow in programs.

## **CONSTRUCTION PARTNERS**

EarthWorks has been supplying construction amendments to clients all over the world since the early 1990's. Our program has survived the test of time and continues to prove itself by speeding up the grow in time, reducing thatch build up, growing strong deep roots and providing an unquestionable return on investment. Many clients have chosen the EarthWorks construction amendments over peat moss saving money and time. The amendments are typically applied over the top of the surface and worked into the top 4 to 8 inches of soil mix, depending on amendment volume, using tilling equipment like a RotaDairon.

#### **Golf Course Partners**

Congressional Country Club **Streamsong Resort** Ozarks National Payne's Valley Golf Course Mountaintop Golf and Lake Club Quail Hollow Club Driftwood Golf and Ranch Club Oakland Hills Country Club Blythefield Country Club Rockville Links Club Dallas National Golf Club **Trinity Forest Golf Club** Pelican Golf Club The Country Club of Orlando Northwood Club Vaguero Club Stonebridge Ranch Country Club Claremont Country Club Lochinvar Golf Club Governors Club Chapel Hill Country Club The Dunes Golf and Beach Club Kinloch Golf Club Stonebriar Country Club Preston Trail Golf Club Myers Park Country Club Robert Trent Jones Golf Club The Clubs at St. James The Sea Pines Resorts Sedgefield Country Club San Francisco Golf Club The Olympic Club Mid Ocean Club

Washington Golf & Country Club
Winged Foot Golf Club
Bethesda Country Club
Atlantic Golf Club
East Orange Golf Course
Lehigh Country Club
Fiddlers Elbow Country Club
Overbrook Golf Club
Lancaster Country Club
California Golf Club
Port Royal Golf Club

#### **Sports Turf Partners**

**Texas Rangers Denison University** The Lawrenceville School **Duke University** Philadelphia Eagles **Red Bulls Academy Seattle Mariners** University of Portland San Jose Earthquakes **Stanford University** Seattle University MoneyGram Soccer Park FC Dallas St. Louis Cardinals Kansas City Chiefs **Sugar Land Skeeters** Frisco RoughRiders Liberty University



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