Filtrexx® Crimson Clover

Vegetation Enhancement Technology

CRIMSON CLOVER

Description

Crimson Clover (*Trifolium incarnatum*) can be blended with specified grass or native seed mixes to achieve a **rapid vegetation cover** in Slope protection/ Temporary seeding/Storm water blankets. Crimson Clover is a nitrogen fixing legume which has the ability to naturally capture nitrogen gas (dinitrogen – N_2) from the atmosphere, convert it to a plant available form (ammonium nitrogen – NH_4, nitrate nitrogen – NO_3), and make it available to other plants growing in close proximity through the soil solution. Clovers have very quick germination times and are fast to establish low growing covers. Crimson Clover is a summer and winter annual, is shade tolerant, is moderately tolerant of drought and heat, can be seeded in most well-drained soils, prefers pH levels between 5.0 and 7.0, and can fix between 70 and 130 lbs/ac (80 and 147 kg/ha) of nitrogen (Sarrantonio, 1994). *Crimson Clover is to be used with specified grass or native seed mixes, not as a stand alone vegetation specification.*

Function

The addition of Clover seed to any Filtrexx® GrowingMedia™ BMP will;

1. decrease the vegetation establishment time
2. decrease the time to 70% uniform cover
3. increase biomass (above ground) relative to grass seed.

These three benefits will function to increase erosion control, slope stabilization, and success of any vegetation establishment and/or slope stabilization project. Vegetation cover has been shown to be effective at reducing moisture loss in various growing media and soils; therefore, reduced irrigation or increased survivability during dry periods may be an additional benefit to adding Clover seed. Independent laboratory testing conducted at the University of Georgia showed that the addition of Crimson Clover seed to grass seeded Slope protection, relative to grass seeded Slope protection without Crimson Clover, reduced vegetation establishment time from 8 days to 3 days (62% reduction), reduced time to 70% uniform vegetated cover from 9 weeks to 6 weeks (33% reduction), and increased biomass by 41% 12 weeks after installation. For more information on this project see Filtrexx® Tech Link #3315 and/or *Vegetation Growth Evaluation with Compost, Mulch, and Support Practice Additives* in the Appendix.

Installation

1. Where required, Crimson Clover seed shall be surface applied manually or hydraulically, or pneumatically injected into GrowingMedia™ during installation of Filtrexx® BMP.
2. Seed shall be mixed and uniformly blended with specified grass seed, and applied together in one step on a uniform coverage basis.
3. Seed shall be irrigated immediately after application and until 70% uniform vegetation cover is established.
4. Crimson Clover shall be applied at a rate of 0.7 lbs/1000 sq. ft or 30 lbs/acre (34 kg/ha) in addition to specified grass seed or native seed mix.

Inspection & Maintenance
Crimson Clover seed may be reapplied if germination is poor, cover is not uniform, uniform cover is less than 70%, or if seed or vegetation is reduced due to excessive storm runoff and erosion.

Method of Measurement
Bid items shall show measurement as seeded Crimson Clover blended with grass or native seed mix and applied to "X" Filtrexx® BMP per square ft, per square yd, per square m, per hectare, or per acre installed.

ADDITIONAL INFORMATION

For other references on this topic, including trade magazine and press coverage, visit the Filtrexx® Website at: http://www.filtrexx.com/resourcespress.htm.

For research reports not included in the Appendix, visit: http://www.filtrexx.com/resourcesreports.htm.

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