



**Maintenance in progress**

***Aeration, Topdressing, Overseeding***

	May	June	July	August	September	October	November
Aeration	x	x		x	x	x	x (tentative DT)
Topdressing	x	x		x	x	x	x (tentative)
Overseeding	x				x		

***Fertilization***

	May	June	July	August	September	October	November
Fertilizer	x	x		x	x	x	
Calcium Supplement		x			x	x	

***Infield Prep***-Daily scarifying and dragging. Lines & boxes on scheduled game days.

***Mowing***- 1x per week. Important for blades to be sharp.

- Dull mowers tear the grass blades rather than cut them. This can result in excessive injury to the plants as well as a brownish cast to the turf.
- Mower blade injury can cause several adverse effects, including increased turfgrass water use and the promotion of disease infection.

***Table 1: Optimum Range of Mowing Heights for Sports Fields***

Sports Field Use	Grass Species	Mowing Height
Baseball infields, field hockey, soccer and highly maintained fields	Kentucky bluegrass and/or perennial ryegrass	1 - 2 inches (25 - 50 mm)
	bermudagrass	.5 - .75 inch (13 - 19 mm)
Baseball outfields and moderately maintained fields	Kentucky bluegrass and/or perennial ryegrass	1.5 - 2.5 inches (38 - 63 mm)
	tall fescue	2 - 3 inches (50 - 76 mm)
	bermudagrass	.75 - 1.5 inches (19 - 38 mm)
Parks & Rec and low-input fields	Kentucky Bluegrass and/or perennial ryegrass or tall fescue	2 - 3 inches (50 - 76 mm)
	bermudagrass	1 - 2 inches (25 - 50 mm)

**Aeration**-Typically we've been using ¾" coring tines with a 2.5" x 2.5" spacing to a 4" depth. For Deep Tine aeration we've used solid tines to a 10" depth, and for vertiquake we would set it as deep as possible (about 8"). Deep tine and vertiquake can be used interchangeably (deep tine will create visible holes on the surface vs vertiquake will cut channels into the soil profile).

**Topdressing**- Rates are variable but as a general guideline we have been using 1 truckload (25-30 tons) delivered to Trum, Dilboy and Lincoln. From there 1 top dresser load can be set aside for Nunziato and Hodgkins (no space to dump sand at these sites) and the remaining sand can be spread on site where the sand was delivered. See sand specification on page 3.

**Overseeding**-We've been using the Hash Mark Sports Turf Mix from Tom Irwin overseeded at a rate of 4lbs/1,000sq ft. This rate can be flexible between 3-5lbs per 1,000sq ft, I tend to go heavier on our weaker fields and lighter on our stronger fields. I typically have this applied in 2 directions so the settings on the seeder are 2lbs/1,000sq ft. Copy of seed tag on page 4.

**Fertilizer**-Currently provided under contract from Natural Tree and lawn. They have a few options but I tend to favor the 8-1-6 blend as we've seen positive results from it over time. This can be applied at a rate of .5lb N/1,000sq ft (per the contract, this is the default rate they will apply when we schedule an application). See fertilizer info on page 5.

**Calcium Supplement**- Purchased by Natural Tree and Lawn from Tom Irwin (already in place in the contract). The brand name of this product is Sili-Cal. This is applied 3 times per year at a rate of 10lbs/1000sq ft. NT&L typically will ask if we want a Sili-Cal application when calling to schedule their work. See Sili-Cal info page 6.

**Lime**-Based on soil test results we have not been using lime on the fields the last 2 seasons. If soil test results were to warrant a lime application an appropriate rate would be in the neighborhood of 15lbs/1,000sq ft twice per year spring and fall application.



Turf & Soil Diagnostics



**MATERIALS TEST REPORT FOR**  
Read Custom Soils

REPORT TO: Read Custom Soils  
Garrett Whitney  
5 Pond Park Road, Unit 1  
Hingham, MA 02043

DATE RECEIVED: Oct-13-2016  
REPORT DATE: Oct-17-2016  
CONDITION OF SAMPLE: Normal

**PARTICLE SIZE (ASTM F1632)**

Lab ID#	Sample Name	Soil Separate* %			Sieve Size / Sand Fraction Sand Particle Diameter % Retained							
		Sand	Silt	Clay	No. 5 Gravel 4.0 mm	No. 10 Gravel 2.0 mm	No. 18 V. Coarse 1.0 mm	No. 35 Coarse 0.50 mm	No. 60 Medium 0.25 mm	No. 100 Fine 0.15 mm	No. 270 V. Fine 0.05 mm	
42086-1	2mm Topdressing Sand	98.4	< 1.0	< 1.0	0.0	0.6	8.1	27.7	41.1	17.5	4.2	
USGA Recommendations for Greens		≥ 92%	≤ 5%	≤ 3%	≤ 3% Gravel ≤ 10% Combined			≥ 60% Combined		≤ 20%	≤ 5%***	
Fairway Topdress Guidelines <sup>†</sup>			≤ 3%		≤ 3% Gravel ≤ 20% Combined			≥ 60% Combined		≤ 20%	≤ 5%	

<sup>†</sup> Guidelines Developed by Hummel & Co.

**PARTICLE SHAPE / pH / PARTICLE SIZE PARAMETERS**

Lab ID#	Sample Name	Shape Sphericity	Shape Angularity	pH <sup>†</sup>	Uniformity Coefficient Cu	D15 mm	D85 mm	% Organic Matter Dry Wt.**
42086-1	2mm Topdressing Sand	High to Low	Angular to Rounded	1:1	2.7	0.20	0.86	

<sup>†</sup>ASTM F1632 and Determination of Size Factors SOP

<sup>†</sup> ASTM D4972, method A, CaCl<sub>2</sub>, 25 g sample used

\*\*ASTM F1647 Method A

\*\*\*Maximum of 10% combined on Very Fine Sand, Silt, and Clay fractions.

Samples were tested as received and comments pertain only to the samples shown.

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Samples were received with a transmittal letter.

Reviewed by Sam Fero

# HASH MARK SPORTS TURF MIXTURE

LOT # L152-16-734V

DATE TESTED: 9/15

CONTAINS	PURE SEED	GERM	ORIGIN
SUNDIAL TALL FESCUE	19.96%	90.00 %	OREGON
FALCON IV TALL FESCUE	19.85%	90.00 %	OREGON
DALLAS TALL FESCUE	19.83%	90.00 %	OREGON
ASHLAND KENTUCKY BLUEGRASS	19.80%	85.00 %	IDAHO
DOUBLE TIME GLS PERENNIAL RYEGRASS	9.91%	90.00 %	OREGON
PALMER III PERENNIAL RYEGRASS	9.83%	90.00 %	OREGON
OTHER CROP SEEDS:	0.10%		
INERT MATTER:	0.72%		
WEED SEEDS:	0.00%		

NOXIOUS WEED SEEDS:NONE FOUND

NET WT. 50 LBS.  
AMS: 7229

Tom Irwin Inc  
13 A Street  
Burlington, MA 01803

Under the seed laws of several states arbitration is required as a prerequisite to maintaining a legal action against the seller of the seed in any dispute relating to the quality or performance of the seed sold. The purchaser shall file a complaint along with the required filing fee, (where applicable), with the Commissionaer or Chief Agricultural Officer within such time as to permit inspection of the crops, plants or trees by the designated agency and the seedsman from whom the seed was purchased. A copy of the complaint shall be sent to the seller by certified or registered mail or as otherwise provided by the statue.

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## 6-0-6 Renaissance® Premium Fertilizer

Our most popular turf fertilizer. Renaissance® 6-0-6 is a zero phosphorous, plant based, excellent All Purpose Organic Fertilizer. Because most soils contain sufficient amounts of phosphorous for growing turf, 6-0-6 may be used throughout the growing season.

## 8-1-6 Renaissance® Premium Fertilizer

Renaissance® 8-1-6 is a plant and animal based Organic Fertilizer ideal for new lawn establishment, sodding or over-seeding. The low phosphorous promotes seed germination, stimulates early root development, and supports cell division and growth. 8-1-6 can also be used throughout the season.



## 8-0-1 Renaissance® Premium Fertilizer

Renaissance® 8-0-1 is a zero phosphorous, plant and animal based Organic Fertilizer for soil not requiring the additional potassium. Offered at a lower price point than our 8-1-6 blend, but with the same nitrogen source.

### Other Renaissance® Blends:

- 4-4-4 Renaissance® Premium Fertilizer
- 6-0-1 Renaissance® Premium Fertilizer
- 8-2-6 Renaissance® Premium Fertilizer
- 11-0-0 Renaissance® Premium Fertilizer
- 9-0-0 Renaissance® Fertilizer (corn gluten)

**Application Rate:** 10lb per 1,000 square feet, a 50lb bag covers approx. 5,000sf. Apply every 7-10 weeks during growing season based on use and expectations (3-4 applications for cool season grasses).



Because the nitrogen is water insoluble the nutrients remain in the turf's root zone requiring less nitrogen. In an organic program, when grass clippings are returned, we recommend 2-3 pounds of nitrogen in a growing season.

**Packaging:** 50lb bags - 40/50lb bags per pallet.

## Product Description

Since 1994 Renaissance® All Natural Organic Fertilizers have been used by landscapers, schools, municipalities, golf courses and organic growers. Renaissance® is excellent for use on lawns, playing fields, around schools and golf fairways. There is no contact problem for the applicator and the area can be used immediately after application.

PJC's Renaissance® All Natural Organic Fertilizers comply with the USDA National Organic Program (NOP) standards, have OMRI listed blends, have been approved for use by Bay State and MOSA organic certifiers and are on the USDA Bio Preferred Product list. Renaissance® fertilizers have been tested in independent studies at Iowa State University to ensure quality control and have consistently demonstrated superior performance over the years.

## Features / Benefits

- All Natural Inputs: Plant and animal protein-amino acid based. No urea, sludge or manure.
- Zero and Low phosphorous formulations.
- Granular - easy to apply with a broadcast spreader.
- Water insoluble nitrogen (WIN), slow release, consistent growth - no burning.
- Releases in 5-7 days when soil temperatures >50°.
- When used properly does not leach or run off and is safe for people, pets and the environment.

**Nutrient Source:** Soybean meal, Feather meal, and Potassium Sulfate.

**Micro Nutrients** (all less than 1%): Sulfur, Calcium, Magnesium, Iron, Chloride, Zinc, Copper, Manganese

## Nutrient Function (N-P-K):

**Nitrogen (N)** promotes leaf and stem growth, essential to chlorophyll production, gives lush green color.

**Phosphorous (P):** stimulates seed germination, promotes root development, and supports cell division and growth.

**Potassium (K)** vital in chlorophyll, starch and protein production, water regulation and turf respiration. Linked to improved stress tolerance, cold and wear.

# SILI-CAL SS

**Granulated Premium Greens Fertilizer  
plus Soil Conditioner**

**GUARANTEED ANALYSIS:**

Calcium ( Ca ) .....	21.00
Total Magnesium as ( Mg ) .....	2.50
2.00 % Water Soluble Magnesium (Mg)	
Derived From: Calcium Silicate and Magnesium Sulfate	

**SOIL CONDITIONER**

Guaranteed Analysis Silicone Dioxide (SiO <sub>2</sub> ) ...	29.00
Total Other Ingredients: .....	71.00
Derived From: Calcium Silicate	

**DIRECTIONS FOR USE**

Soil testing prior to application recommended. An initial application rate of 20lbs/1000 sq. ft. is suggested, based on soil analysis. After adequate silicon levels in the soil are achieved, it is suggested that SILI-CAL SS be applied once per month at a rate of 10 lbs pounds per 1,000 sq. ft.; not to exceed 50 lbs per 1000 sq. ft. annually.

## Calcium Silicate Corporation

**Columbia, Tennessee; Lake Harbor, Florida**

**Mark C. Elizer, President, Ph: (863) 902-0217, Fax: (863) 902-0107**

Calcium Silicate Corporation conducts ongoing product testing to assure product safety, however we cannot assume responsibility for misuse of the product, misapplication or any unintended consequences. As such, the end user assumes full responsibility for product use determinations and application.