

# RUTGERS

New Jersey Agricultural  
Experiment Station

Soil Testing Laboratory  
Rutgers, The State University  
P.O. Box 902  
Milltown, NJ 08850-0902  
Phone: (732) 932-9295

OCT 15 2009

## Soil Test Report

Lab No: 2009-6483

Name: Ocean County Soil Conservation District

Date Received: 09/28/2009

Address: 714 Lacey Road  
Forked River, NJ 08731

Date Reported: 10/12/2009

Phone: (609) 971-7002

Serial No: AN - 7267

Fax: (609) 971-3391

Sample ID: Jake's Branch Field (SE)

Referred To: Rutgers Cooperative Ext. of Ocean County  
(732) 349-1246

### Crop or Plant

Est. Turfgrass - Other turf

## Soil Tests and Interpretation

Loamy Sand

pH: 7.70 Moderately alkaline, too high for growth of many plants and indicates either severe overliming or a salt-affected soil.

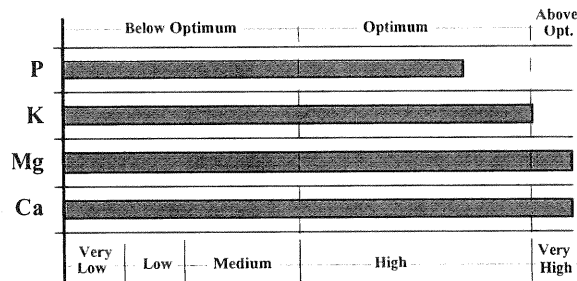
### **Lime Requirement Index:**

Adams-Evans LRI is a measure of the soil's buffering capacity (resistance to change in pH).  
It is used to determine liming rate, when necessary.

### Macronutrients (pounds/acre)

Phosphorus: 119 (Optimum)  
Potassium: 281 (Above Optimum)  
Magnesium: 388 (Above Optimum)  
Calcium: 5390 (Above Optimum)

by Mehlich 3 extraction



## Cation Exchange Capacity and Basic Cation Saturation

CEC	Base Saturation	Calcium	Magnesium	Potassium
meq/100 g (100%)		13.5 meq/100 g	1.6 meq/100 g	0.4 meq/100 g

Suggested range of Cation Saturation:

65 to 76%

10 to 15%

4 to 7%

## Micronutrients (parts per million)

Zinc:  
16. (Adequate)

Copper:  
5.4 (Adequate)

Manganese:  
11. (Adequate)

Boron:  
3.4 (Adequate)

Iron:  
312 (High)

## **Special Tests and Results**

Electrical Conductivity: Soluble Salt Level = 0.15 mmho/cm (Satisfactory soluble salt content)

Soil Organic Matter: Organic Matter = 3.98%, Organic Carbon = 2.31%

## **Lime Recommendation**

The soil test indicates a moderately alkaline soil and probably indicates overliming. The pH is higher than the best range for the growth of most Turfgrass. Do not apply any limestone, compost or wood ashes to the area. The pH may be reduced by the application of powdered sulfur, iron sulfate, or aluminum sulfate. One of these materials should be applied 3 times a year in the early spring, early fall, and late fall by spreading the material evenly over the soil surface followed by watering of the area. The rates of application are:

sulfur : 1 pound/1000 sq. ft. / application

Iron sulfate : 9 pounds/1000 sq. ft. / application

Aluminum sulfate : 8 pounds/1000 sq. ft. / application

Have the soil tested again in one year.

## **Fertilizer Recommendation**

Established Other turf -

The soil tests indicate high phosphorus (P) and very high potassium (K) fertility levels.

Any of the following fertilizer grades and amounts may be used to supply the needed amounts of nutrients. Other fertilizer grades containing the appropriate ratio (4-1-1) of nutrients may be used. Use fertilizers containing 30-60% of the nitrogen in slow-release form (Water Insoluble Nitrogen).

Grades: 3 pounds 31-3-8 (Scotts LawnPro Step4) plus 0.75 pound (13 ounces) 0-20-0 (Superphosphate) or 0.25 pound (6 ounces) 0-40-0 (Triple Superphosphate),

Or 4 pounds 26-4-6 (TwinLight SuperTurf) plus 0.5 pound (7 ounces) 0-20-0 (Superphosphate) or 0.25 pound (3 ounces) 0-40-0 (Triple Superphosphate)

Spread the indicated amount of pounds/1000 square feet per application of one of these fertilizers in 2 applications evenly over the soil in September-October and in April-May each year.

Clippings should not be removed so nutrients may be recycled. Mow the grass frequently to maintain about a 2.5" to 3" height. Mow the grass when it is about 4 inches tall or less.

## **Micronutrient Statements**

Zinc does not appear to be a limiting factor. For information about zinc in soil for plant nutrition, see FS721.

Copper does not appear to be a limiting factor. As with most other micronutrients, copper availability is related to soil pH. Do not over-lime. For more information about soil copper, see FS720.

Manganese does not appear to be a limiting factor. Maintain soil pH in the optimum range, as directed in "Recommendations". See FS973 for more information about manganese in soil and plant nutrition.

Boron would not be a limiting factor for most plants. Plant types differ in their requirement for boron, however; certain fruit, vegetables, and field crops have greater need for boron (up to 0.75 ppm). For more information, see FS873.

Plant availability to iron is highly dependent on soil pH. Although soil iron appears plentiful, high soil pH could limit its availability. On the other hand, plant damage due to iron toxicity, though not common, could occur at low soil pH (acidic soil). Maintain soil pH in the optimum range as described in Recommendations. See FS971 for more information.

**Please refer questions to:** Rutgers Cooperative Extension of Ocean County  
(732) 349-1246