



SOIL TEST REPORT FOR:				ADDITIONAL COPY TO:		
JOHN JONES JONES FAMILY FARM HARMONY LANE GREENVILLE PA 22222				SAM COOK TOP GROW ENTERPRISES 111 ALFALFA RD. SMITHVILLE PA 11111		
DATE	LAB #	SERIAL #	COUNTY	ACRES	FIELD ID	SOIL
03/18/2015	S15-04459		Centre		A2	

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH	5.9			
Phosphorus	20 ppm			
Potassium	123 ppm			

RECOMMENDATIONS FOR: *Home Lawn to Plant* *Kentucky Bluegrass*

Prior to planting, incorporate the following into the top 4 to 6 inches of soil. See additional comments on back of report.

- Limestone:** 110 lb/1000 square feet
- Phosphate (P₂O₅):** 22 lb/1000 square feet of triple superphosphate (0-46-0)
- Potash (K₂O):** 6 lb/1000 square feet of sulfate of potash (0-0-50)
- Organic Matter:** NONE

At time of planting, use ONE of starter fertilizer materials listed below at recommended rate. Apply once just prior to seeding to the soil surface.

Starter fertilizer*	Rate of fertilizer product (lb per 1000 square feet)
24-25-4	4.0
20-27-5	5.0
18-24-12	5.5
18-24-6	5.5
13-13-13	7.5

*Select only one of the above fertilizers. If you can not find any of the fertilizers listed above, select a fertilizer with an analysis close to one of those listed.

Nutrient Needs (lb/1000 sq ft):		
10	3	The nutrient needs for optimum turf growth are listed to the left. These needs will be met by applying the fertilizer materials listed above.
P ₂ O ₅	K ₂ O	

LABORATORY RESULTS:							Optional Tests:				
¹ pH	² P lb/A	Exchangeable Cations (meq/100g)				% Saturation of the CEC			Organic Matter %	Nitrate-N ppm	Soluble salts mmhos/cm
		³ Acidity	² K	² Mg	² Ca	⁴ CEC	K	Mg			
5.9	40	6.30	0.32	0.68	4.94	12.2	2.6	5.5	40.4	3.6	

Test Methods: ¹1:1 soil:water pH, ²Mehlich 3 (ICP), ³Mehlich Buffer pH, ⁴Summation of Cations

Home Lawn-to plant

Lawn establishment where soil will be tilled to a depth of 4 to 6 inches.

Limestone application guidelines: Apply full limestone recommendation and thoroughly mix into the soil four to six inches deep. Use a high quality ground or pelletized limestone product to meet the recommendation on this report. Manufacturers of agricultural ground limestone products provide a number called the calcium carbonate equivalent, or CCE, on the label. CCE values close to 100% or above indicate a pure limestone source (greater ability to neutralize soil acidity). The amount of limestone recommended on this report is based on an agricultural ground limestone with a CCE of 100%. If your limestone source is close to or equal to 100, you don't need to adjust the recommended amount. In the event that you use a limestone with a CCE well below 100%, use the following formula to adjust the required amount.

$$\text{Actual liming material required} = \frac{(\text{Soil test recommendation, lbs/1000 square feet}) \times 100}{\text{CCE of liming material}}$$

Example:

Soil Test Recommendation: Apply 75 lbs limestone/1000 square feet

CCE on label: 80%

$$\begin{aligned} \text{Actual liming material required} &= \frac{(75 \text{ lbs}) \times 100}{80} \\ &= 94 \text{ lb/1000 square feet of actual liming material} \end{aligned}$$

Organic amendment guidelines: If the organic matter test was requested and organic matter recommended, thoroughly mix organic matter into a four to six inch soil depth with recommended fertilizer. Sphagnum peat and peat humus typically contain high amounts of organic matter (> 80 %) and will usually meet organic matter requirements when incorporated at the rate recommended on the soil test report. High quality compost may also be used as an organic amendment; however, most composts contain lower amounts of organic matter than peat. Therefore, you may need to add greater amounts of compost to meet soil test organic matter recommendations. For more information on using composts as organic amendments in new turf plantings, refer to the publication, "Using Composts to Improve Turf Performance". This publication is available on-line at: <http://plantscience.psu.edu/research/centers/turf/extension/factsheets/composts> or from the Publication Distribution Center, The Pennsylvania State University, 112 Agricultural Administration Bldg., University Park, PA 16802.

Fertilizer application guidelines: Thoroughly mix recommended phosphate (P₂O₅) and/or potash (K₂O) into a four to six inch soil depth. Grade and finish rake for seeding. Apply starter fertilizer just prior to seeding.

Lawn establishment where soil will not be tilled.

In some cases, turfgrass seed is planted into soils that have not been tilled. In such cases, incorporating large amounts of lime, organic matter, and fertilizer into soil four to six inches in depth is not possible. When planting into soils that have not been tilled, do not exceed 100 lb limestone/1000 square feet; 5 lb P₂O₅/1000 square feet (9 lb of 0-46-0/1000 square feet) or 2 lb K₂O/1000 square feet (4 lb 0-0-50/1000 square feet), or 1 cubic yard of organic matter per 1000 square feet. The full recommended rate of starter fertilizer can be applied to the soil surface with this type of planting.

For additional information on lawn establishment please refer to the Penn State Extension publication, *Lawn Establishment*, <http://plantscience.psu.edu/research/centers/turf/extension/factsheets/lawn-establishment>.