



Soil Report
Trees

Test Data

pH - Soil	5.30			Optimum Range (See Below)
Calcium, Mehlich 3 (Ca)	347.10 (ppm)	L		800 - 1200
Magnesium, Mehlich 3 (Mg)	33.00 (ppm)	L		60 - 120
Potassium, Mehlich 3 (K)	54.00 (ppm)	L		170 - 280
Phosphorus, Mehlich 3 (P)	37.00 (ppm)	M		30 - 50
Lead, Mehlich 3 (Pb)	6.27 (ppm)	VL		
Org. Matter, LOI-360 (OM)	4.87 (%)			
Optimum Range Key				
VL - Very Low	L - Low	M - Medium	H - High	VH - Very High

Lead Screening Results

Generally, it is considered safe to use garden produce grown on soils with UNH soil test lead values of less than 180 ppm (This is equivalent to the US EPA total lead level of 400 ppm using their testing procedure). The lead level in your soil sample is 6, and is in the **Very Low** range. Based on your results:

- No special precautions are necessary

These lead comments pertain only to vegetable gardens. If any of this area is to be used for vegetable production in the future, these comments would apply.

Recommendations

Deciduous Trees and Shrubs (pH range 5.5 - 6.5)

Conventional Fertilizer Recommendations

New Planting

Lime: An appropriate pH range for most deciduous trees and shrubs is 5.5 - 6.5. To lime to pH 6.0, apply and incorporate 9 lbs dolomitic lime per 100 sq. ft. Mix thoroughly into the top 6 inches of soil before planting or broadcast on the soil surface and lightly rake in.

Fertilizer: Please use only one of the following fertilizer application methods depending on your situation:

Surface Area Applications

- For each 100 sq. ft. of area, apply .75 - 1.5lbs of superphosphate (0-20-0) or 1.25 - 2.5lbs of bone meal (6-12-0) as a phosphorus source.
- Also apply 0.8 - 1.6lbs of muriate of potash (0-0-60) or potassium sulfate (0-0-50) per 100 sq. ft
- If practical, it is best to fertilize the entire planting area for landscape beds, or an area at least 2-3 times the root ball diameter for individual trees.
- Use the low rates for sandy soils, medium rates for loams, and the high rates for clay or clay loam soils. Till in the amendments to a depth of 6-8".

If it is not practical to fertilize a large planting area, use the following recommendations for amending backfill soils for planting individual trees and shrubs:

Per planting hole

- Add 1 oz of superphosphate (0-20-0) or 2 oz of bonemeal (6-12-0) per cubic foot of backfill soil.

- Add 1/4 oz of muriate of potash (0-0-60) or potassium sulfate (0-0-50) per cubic foot of backfill soil.
- Mix these amendments thoroughly with the backfill soil before filling in the planting hole.
- Mulch with 1-3" of finished compost to provide nitrogen.

New Planting Comments

Calculate the square footage of the area to be fertilized (for help, refer to fact sheet [Does Your Lawn Measure Up?](#))

Nitrogen fertilizer is not needed during the first growing season. Wait until fall or the following spring to fertilize with nitrogen. Then follow the recommendations below for existing plantings.

Existing Plantings

Lime: An appropriate pH range for most deciduous trees and shrubs is 5.5 - 6.5. To lime to pH 6.0, apply and incorporate 9 lbs dolomitic lime per 100 sq. ft. If applying lime, broadcast it on the soil surface and rake it in lightly.

Fertilizer:

- Apply a granular 20-10-20 or similar fertilizer at a rate of .5 lbs per 100 sq. ft., two or three times per year (early spring, early summer, and/or fall).
- **OR** use 1 lb of 18-6-12 or 1.5 lbs of 12-4-8 **slow release fertilizer** per 100 sq. ft., twice per year (spring and fall).

Comments

These recommendations are for young but established trees and shrubs for which you desire a rapid growth rate.

For mature trees and shrubs, lower fertilizer rates can be used. Cut down on the number of applications per year, or use a lower rate for each application.

For landscaped areas, fertilize the entire bed area. For trees, fertilize the entire area underneath the canopy, plus several feet beyond the drip line.

Trees surrounded by fertilized lawn areas do not usually need any additional fertilizer.

OR

Organic Fertilizer Recommendations

New Planting

Lime: An appropriate pH range for most deciduous trees and shrubs is 5.5 - 6.5. To lime to pH 6.0, apply and incorporate 9 lbs dolomitic lime per 100 sq. ft. Mix thoroughly into the top 6 inches of soil before planting or broadcast on the soil surface and lightly rake in.

Fertilizer: Please use only one of the following fertilizer application methods depending on your situation:

Surface Area Applications

- For each 100 sq. ft. of area, apply .75 - 1.5lbs of bone meal (6-12-0) as a phosphorus source.
- Also apply 0.8 - 1.6lbs of potassium sulfate (0-0-50) per 100 sq. ft
- If practical, it is best to fertilize the entire planting area for landscape beds, or an area at least 2-3 times the root ball diameter for individual trees.
- Use the low rates for sandy soils, medium rates for loams, and the high rates for clay or clay loam soils. Till in the amendments to a depth of 6-8".

If it is not practical to fertilize a large planting area, use the following recommendations for amending backfill soils for planting individual trees and shrubs:

Per planting hole

- Add 2 oz of bonemeal (6-12-0) per cubic foot of backfill soil.
- Add 1/4 lb of greensand and 1/8 oz of sulfate of potash-magnesia (0-0-22) per cubic foot of backfill soil.
- Mix these amendments thoroughly with the backfill soil before filling in the planting hole.

New Planting Comments

Calculate the square footage of the area to be fertilized (for help, refer to fact sheet [Does Your Lawn Measure Up?](#))

Nitrogen fertilizer is not needed during the first growing season. Wait until fall or the following spring to fertilize with nitrogen. Then follow the recommendations below for existing plantings.

Existing Plantings

Lime: An appropriate pH range for most deciduous trees and shrubs is 5.5 - 6.5. To lime to pH 6.0, apply and incorporate 9 lbs dolomitic lime per 100 sq. ft. If applying lime, broadcast it on the soil surface and rake it in lightly.

Fertilizer:

- Phosphorus levels are optimum. If using manures, compost or other organic sources of nitrogen, no additional phosphorus is required.
- Otherwise, apply .5 - 1 lb bonemeal/100 sq. ft.
- Potassium levels are low. Apply 1 lb/100 sq. ft. of Su-IPo-Mag (0-0-22)

Comments

These recommendations are for young but established trees and shrubs for which you desire a rapid growth rate.

For mature trees and shrubs, lower fertilizer rates can be used. Cut down on the number of applications per year, or use a lower rate for each application.

For landscaped areas, fertilize the entire bed area. For trees, fertilize the entire area underneath the canopy, plus several feet beyond the drip line.

Trees surrounded by fertilized lawn areas do not usually need any additional fertilizer.

General Comments

UNHCE recommends that soil tests be performed every two years to ensure that proper recommendations are made.

The recommendations made in this report are based on the current conditions of your soil. The addition of amendments or fertilizers may alter your soil conditions.

Specific fertilizer analyses are recommended for the purpose of simplicity. No endorsement of products is intended nor discrimination against similar products not mentioned.

For help in determining the suitability of other fertilizers and calculating application rates for them, please call the Education Center & Info Line at 877-EXT-GROW, Mon-Fri 9 a.m. - 2 p.m. answers@unh.edu

References

For more information, please refer to the following:

[*Fertilizing Trees and Shrubs*](#)

[*Lead Screening for NH Soils: Minimizing Health Risks*](#)

[*Understanding your soil test*](#)

[*Slow-Release Fertilizers for Home Gardens and Landscapes*](#)

[*Fertilizing the Organic Garden*](#)

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