



**Extension**

## **Soil, Water & Plant Testing Lab**

**Campus Delivery 1120 A-319 NESB**

**Fort Collins CO 80523-1120**

**Phone 970-491-5061 Fax 970-491-2930**

A soil test is the best way to check the growing potential of your garden.

You can buy the most attractive plants in the greenhouse or order the best seeds, but they won't produce the best results if the soil lacks the proper nutrition or the proper qualities the soil should have.

The "routine" Garden and Landscape test will take the guess work out of your garden's growing potential. It will guide you in deciding which nutrients are lacking and sometimes, more importantly, which you have too much of. Over-fertilizing is a common gardening problem. It is not only expensive, but it may harm your garden's production and our environment.

CSU also enables you to have your garden retested at a discount to check on your garden's progress.



**SOIL, WATER & PLANT TESTING LABORATORY**

NESB Room A319, Colorado State University  
Fort Collins CO 80523-1120  
970-491-5061

[www.soiltestinglab.colostate.edu](http://www.soiltestinglab.colostate.edu)

DATE: \_\_\_\_\_ Number of samples \_\_\_\_\_ CLIENT TYPE (Check one)

Sample ID(s) \_\_\_\_\_  Homeowner  Operator

FULL NAME: \_\_\_\_\_  Golf Course  Nursery/Garden Center

ADDRESS: \_\_\_\_\_  Lawn Care Co.  Dealer/Distributor

\_\_\_\_\_  Consultant  Regulatory Agency

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  Extension Agent  Government/School

PHONE # \_\_\_\_\_  Other \_\_\_\_\_

E-mail Address \_\_\_\_\_ County sample is from \_\_\_\_\_

Do you have Excel on your computer? \_\_\_\_\_

*By accepting service or goods, I agree to submit payment in full to Colorado State University upon receipt of invoice or University Billing Statement. Late Payment charges of 1.5% per month and other penalties may be assessed for late payment.*

The following information will help us give you a better written explanation of the laboratory results. If submitting soil samples from different use areas (e.g. lawn, vegetable garden, flower bed), use a separate form for each area.

**PLEASE CHECK ALL THAT APPLY** (See page 3 for sampling instructions)

1. The soil sample is from:  
 Lawn  Vegetable Garden  Flower bed  Container plantings  Golf Course  
 Greenhouse  Reclamation Site  Other \_\_\_\_\_

2. What is currently growing on the site? For how long? \_\_\_\_\_ yrs  
 Vegetables  Flowers  Turfgrass  Trees  Other \_\_\_\_\_

3. What do you plan to grow at the site?  
 Vegetables  Flowers  Turfgrass  Trees  Other \_\_\_\_\_

If you are growing turf: Is this a new site to be  seeded or  sodded? What grass species/variety will you use? \_\_\_\_\_

Is it an existing lawn? \_\_\_\_\_ If so, how old is the lawn? \_\_\_\_\_ What type of grass? \_\_\_\_\_

4. Will this site be irrigated/watered?  Yes  No  
If yes, which method?  Sprinkler  Flood  Drip Other (please specify) \_\_\_\_\_  
How often do you irrigate/water?  Daily  Once per week  Twice per week  
 Other \_\_\_\_\_

How much water do you add with each irrigation? \_\_\_\_\_

5. If possible, list the types of previous crops or plants that grew on this site: \_\_\_\_\_

6. What fertilizers or amendments (e.g. compost, manure) have you added to the soil, how much did you apply, and how long ago did you apply it?  
\_\_\_\_\_

7. Please list specific fertilizers or amendments that you plan to add to the soil

8. Is there a specific problem with this site?  No  Yes

If yes, please describe the problem, what caused the problem, and why you think it was the cause.

9. If you wish to have a fertilizer recommendation based on organic fertilizers, please answer the following questions.

What is the type of material that will be used for organic fertilizer? \_\_\_\_\_

Do you know the nutrient levels in the organic fertilizer?  No  Yes

If yes, please supply the following information: % nitrogen \_\_\_\_\_ % phosphorus \_\_\_\_\_ % potassium \_\_\_\_\_

pH \_\_\_\_\_ Salts (mmhos/cm) \_\_\_\_\_

10. In what units do you want to receive our fertilizer recommendation?

\_\_\_\_\_ Lbs per Acre \_\_\_\_\_ Lbs per 1000 sq.ft. \_\_\_\_\_ Lbs per 100 sq.ft. \_\_\_\_\_ Kg per Hectare

**PLEASE CIRCLE ANALYSES REQUESTED**

**Price per  
Sample**

**Routine Garden and Landscape soil test**

(pH, EC, organic matter, nitrate, phosphorus, potassium, zinc, iron, copper  
manganese, boron and lime & texture estimates)

**\$28.00**

*(This is a basic evaluation for characterizing the soil fertility status for growing lawns,  
gardens and topsoil. Normally this test is sufficient unless a special problem is suspected.)*

**Routine Manure, Compost and Potting Soil analyses**

(pH, EC, organic matter, ammonium, nitrate, phosphorus, potassium, zinc, iron,  
copper, manganese, % lime, dry matter, C:N ratio, Total N)

**\$38.00**

**Routine + Texture analysis by hydrometer**

*(This analysis accurately measures the percent sand, silt, and clay of  
the soil to help manage plant growing conditions.)*

**+ \$12.00**

**Routine + Sodium Evaluation (SAR)**

*(Sodium Adsorption Ratio is the ratio of sodium to calcium + magnesium. Some  
Colorado soils contain excess sodium. This test determines whether or not chemical  
amendments such as gypsum or sulfur will be effective to reclaim the site and  
determines the amounts of these materials needed.)*

**+ \$6.00**

**Routine + Chromium, Molybdenum, Cadmium, Lead**

*(In some situations, such as near mining sites or with applications of biosolids  
such as sewage sludge, these metals may be found at toxic levels in the soil.)*

**+ \$9.00**

**Routine + C/N ratio**

*(The C/N ratio helps determine the fertilizer N recommendation for a soil that has  
had high rates of compost or manure applied to it.)*

**+ \$21.00**

**MINIMUM CHARGE**

**\$12.00**

**NOTE: A 25% discount coupon for rerun analyses will be included with your test results.  
For special issues and problems, a soil specialist is available for an individual phone or  
email consultation (approx. 1 hr) at the cost of \$50.00.**

**Soil, Water & Plant Testing Lab, Campus Delivery 1120 Room A-319 NESB, Fort Collins CO 80523-1120**

## SUGGESTED INSTRUCTIONS FOR SUBMITTING SOIL SAMPLES

*Taking a good soil sample is vital to obtaining useful laboratory results.*

### Please use the following steps to submit soil samples:

1. A soil sample may be taken at any time of the year, although spring and fall are usually the most convenient times. Avoid soil sampling within 30 days of an application of nitrogen fertilizer, compost or manure.
2. A soil sample should represent a uniform area consisting of land that is similar in slope, drainage, texture, or other characteristics that make the soil the same. Submit a separate sample for each area that receives different fertilizer, amendments and/or soil management treatments. For example, garden areas are managed differently from lawns, so the garden should be sampled separately from the lawn. Different garden beds, or different yard areas, that receive differing amounts of fertilizers, soil amendments or irrigation should also be sampled separately.
3. Use a clean, rust-free trowel, spade, soil tube or soil auger to collect your soil sample. Each sample should be a composite of 5 to 15 samples (depending on the size of the area) collected randomly throughout the chosen area. Collect these samples to a depth of 6 inches, and combine them in a clean plastic container. Try to dig straight down, rather than at an angle, so that equal amounts of soil are collected at each depth increment. Try to collect about the same amount of soil from each sampling area.
4. Mix the samples together thoroughly, removing plant debris and breaking up clods. Remove about 2 cups of soil and, if possible, air-dry it by spreading it out on paper towels. (Do not oven-dry soil samples.) We will accept moist samples if air drying isn't possible.
5. Place the soil sample into the CSU soil container (preferred), or a zipper-seal plastic bag. Seal the container and label the sample with name, address and location of the sample (for example "Vegetable Garden", "Lawn1", "Lawn2", etc.).
6. If multiple samples are being submitted for analysis, including a map of your sampling procedure would be helpful in interpreting the laboratory analyses.
7. Complete the soil sample information form as completely as possible and include it with the soil sample(s). Use a separate form for samples coming from different types of areas (e.g. lawn, vegetable garden, flower bed, etc.)
8. Mail sample(s) to the lab using the following address:  

<b>Soil, Water and Plant Testing Laboratory</b> <b>Colorado State University</b> <b>Room A 319 NESB</b> <b>Fort Collins CO 80523-1120</b>	<b>For submittal by UPS/FedEx, please use:</b> <b>Soil, Water and Plant Testing Laboratory</b> <b>Colorado State University</b> <b>200 West Lake Street</b> <b>Fort Collins CO 80523-1120</b>
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9. Please keep samples cool before mailing. If samples heat up, the nitrogen readings can change dramatically. Keeping samples in the shade will help prevent excess heating.
10. You may pay in advance by including a check made out to CSU with your soil samples, or, we can bill you. If an invoice is required for an individual (rather than a business) you will need to provide all the information requested on the front side of the form. We accept either MasterCard or Visa.
11. The lab DOES NOT do herbicide or pesticide analyses.
12. If you have additional questions, please contact the lab at: (970) 491-5061, or your local county Cooperative Extension Agent ([www.ext.colostate.edu](http://www.ext.colostate.edu) , click on "County Offices").

### COMMENTS:

1. The objective of the CSU soil testing lab is to provide you with suggestions that improve soil health while producing healthy garden and landscape plants.
2. Different laboratories do not always use the same soil test procedures, so the numbers from different labs will not necessarily match, nor will a numerical value obtained from one lab necessarily have the same interpretation as that same number from another lab. However, recommendations from different labs for a given soil sample will be essentially the same.
3. Your soil test results may indicate that the soil properties analyzed are normal and not a cause for problems you may have observed in your garden or landscape. Other causes for observed problems may be soil compaction, over- or under-watering, poor soil drainage, diseases, insects, weed competition, too much shade, poor plant varieties, or basic neglect.