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Using the Soil Test Report Form

The success of any farming operation depends a great deal on soil fertility and the proper use of fertilizer materials when soil fertility is out of balance. A soil test as an indicator of soil fertility is a valuable tool for the farm operator. However, for making sound fertilizer recommendations, soil test results should be considered with additional field information such as the cropping and fertilizer history of the field, as well as the crop to be grown.

The Soil Test Report Form asks for information necessary for making fertilizer recommendations based on the soil test. You need to supply this information as completely as possible and submit the form with your soil samples.

The following paragraphs describe the information requested on the Soil Test Report Form and help explain why this information is important:

Grower Information

This part of the form includes basic grower and field facts:

Name of grower and Address, County in which your farm is located, Date of sampling, Sample Identification that you use for your own records.

Soil Texture may influence the form of fertilizer suggested, Acres Sampled will indicate the size of area which the soil sample represents.

Sample Taken By the grower and/or an agricultural chemical dealer and Address of Dealer.

If your farm is in a different county or state from your residence and if you wish to have the county agent make the fertilizer recommendation, you should also indicate this on the report sheet.

SOIL TEST REPORT

DO NOT WRITE IN THIS SPACE

Lab. No. _____

Fee: \$ _____

Paid: Cash _____ Check _____ Other _____

Name _____

Address _____

County _____

Date _____

FIELD INFORMATION (Fill in Completely)

Rotation	Crop	Fertilizer applied lbs/A	Yield	Irrigation (sprinkler, furrow, none)
Next crop				
Previous crop				
Grown in 19__				
Grown in 19__				

Sample Ident. _____

Soil Texture _____

Acres Sampled _____

Sample Taken by _____
(grower or fertilizer company)

LABORATORY DATA - Check Test Desired

A. Standard Test

	Sampling depth (inches)	
	Cultivation or 0-7	Other
Soil Reaction - pH		
Available P (ppm P)		
Available K (ppm K)		
Soil Organic Matter, %		

NaHCO₃ 1:20 NaOAc 1:5

B. Nitrogen Test

Soil depth (inches)	Nitrate <input type="checkbox"/> nitrogen ppm N	Ammonium <input type="checkbox"/> nitrogen ppm N	Available <input type="checkbox"/> moisture (inches)
0-12			
12-24			
24-36			
36-48			
48-60			
60-72			
Total			

C. Cation Content Sample depth _____

Cations	Milliequivalents/100 grams Soil			
	Calcium	Magnesium	Potassium	Sodium

D. Special Tests

Zinc ppm <input type="checkbox"/>	Manganese ppm <input type="checkbox"/>	Boron ppm <input type="checkbox"/>	Sulfate sulfur ppm <input type="checkbox"/>	Total Salts mmhos <input type="checkbox"/>	Gypsum Req. alkali soils <input type="checkbox"/>	Lime Req. acid soils <input type="checkbox"/>	Other <input type="checkbox"/>

SOIL FERTILITY GUIDE

Pounds per acre					Zinc lbs/A	Sulfur lbs/A	Boron lbs/A	Other
N	P ₂ O ₅	P	K ₂ O	K				

Fertilizer rate suggestions are based on soil test data shown above and research results.

Remarks: _____

If you wish further details or have questions concerning the soil analysis, please contact your County Agent.
GROWER COPY

Extension Agricultural Agent

To get the most help from your soil test, fill in this form as completely as possible. Send the soil sample, the testing fee and all four copies of the form to the Plant and Soil Analytical Laboratory at the College of Agriculture.

Sample and Sample Preparation

To assure reliability in soil analysis, sufficient sample must be submitted to the Laboratory. The minimum amount of soil sample needed for analysis is 1 pound of air dried soil.

Soil samples should be taken carefully to avoid contamination and to assure a representative

sample. Instruction and report sheets can be obtained through County Extension offices or the Plant and Soil Analytical Laboratory. For additional information on sampling, see University of Idaho Current Information Series 162, Soil Sampling.

All samples are discarded one month after analysis has been

completed, unless a request is made to return the remaining portion to the sender. If you want the sample returned, be sure to submit sufficient postage with the fees.

Laboratory Data and Tests Available

Laboratory personnel will analyze only those tests which are ordered on the form. Clearly mark an X in the appropriate square to indicate the tests desired. If you are uncertain or have questions concerning these tests or if you need a special test which is not listed on the form, contact your Extension Agent, the Extension Soils Specialist or the Plant and Soil Analytical Laboratory Supervisor. The laboratory technicians will not process any samples received without the Soil Test Report Form or with a Form which has no tests marked. Tests available include:

A. Standard Test — Used for all crops to determine the amount of phosphorus and potassium fertilizer needed. It also indicates the soil reactivity (pH) and organic matter content. The sampling depth for the standard test is the cultivation depth or 7 inches (See CIS No. 162, Soil Sampling). If your sampling depth is different, indicate so that the soil tests can be interpreted accordingly.

B. Nitrogen Test — Used to determine the amount of nitrogen (nitrate and/or ammonium) carryover from the previous crop. When the carryover nitrogen is known, the amount of nitrogen fertilizer needed for the intended crop is adjusted. In some areas (non-irrigated) the amount of available moisture is also important in determining the amount of nitrogen fertilizer to apply to the intended crop i.e., areas of low rainfall, shallow soil, etc. (See CIS No. 162 for proper sampling for nitrogen).

C. Cation Content — Intended to be used for areas which have soil problems or saline-alkaline soils. It can be used to determine if the calcium or magnesium in the soil is too low for the intended crop.

D. Special Tests — Available to determine micro-nutrient needs, salt problems, soil reactivity (pH) adjustment and soil characterization. These tests will determine if you need to add zinc for growing beans; boron for alfalfa or sugar beets; sulfur for cereal grains or legumes, and so on.

Soil Fertility Guide

A copy of the Soil Test Report Form containing the soil test results will be returned to you through the County Extension Agent. If you request, a fertilizer guide* written for the intended crop will be included with the soil test results. This guide will

indicate the amount of fertilizer needed for the intended crop. If a fertilizer guide is not available for a specific crop, your Extension Agent will provide the suggested fertilizer guide rates.

Soil Testing Fee

The current soil testing fee schedule is printed in full below. All fees charged by the Soil Testing Lab are subject to change without notice.

SOIL TEST FEE SCHEDULE

Test	Cost per sample
A. Standard Test	\$ 5.00
Alone or Combination less than Standard Test:	
pH — Soil Reaction	2.00
Phosphorus	2.00
Potassium	2.00
Organic Matter	3.00
B. Nitrogen (each foot depth is 1 sample)	
Nitrate Nitrogen	3.00
Ammonium Nitrogen	3.00
Available Moisture	3.00
C. Cation Content	8.00
Individual Cations (Calcium, Magnesium, Sodium, Potassium) each	3.00
D. Special Tests	
Zinc, Manganese, Copper, Iron	8.00
Zinc and Manganese	6.00
Zinc alone	4.00
Manganese alone	4.00
Boron	4.00
Sulfate sulfur	2.00
Total Salts, E. C.	2.00
Gypsum Req.	2.00
Lime Req.	2.00
E. Moisture Curve	
1/3 Atmosphere-pressure plate	3.00
15 Atmosphere-pressure plate	3.00
F. Phosphorus Absorption & Desorption	10.00
G. Cation Exchange Capacity (C.E.C.) Saturated with ammonium acetate and NH ₃ distilled	5.00
H. % Nitrogen	3.00
I. Mechanical Analysis	
Bouyoucos Hydrometer Method	7.50

* The new and revised fertilizer guides are published as Current Information Series publications.

Address questions, inquiries and samples to:

Supervisor, Plant and Soil Analytical Laboratory
College of Agriculture
University of Idaho
Moscow, Idaho 83843

Include payment of fee with the sample and sample form. Make your check payable to: **Business Manager, University of Idaho.**

This publication was prepared by Richard D. Johnson, former Extension Soils Specialist.

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