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Soil, Water and Forage Analysis Laboratory Services



# SOIL, WATER AND FORAGE ANALYSIS LABORATORY SERVICES TEXAS AGRICULTURAL EXTENSION SERVICE

The Texas Agricultural Extension Service provides laboratory services from three locations — College Station, Lubbock and Seymour. This publication explains the types of tests available at each location, fee schedule and general type information reported.

SOIL FERTILITY TESTS (College Station, Lubbock, Seymour)

Basic soil fertility tests including pH, potassium, phosphorus and salinity hazard are available from all locations. Also included are calcium and magnesium at College Station and Lubbock. Sodium is included at Seymour and organic matter is available on request from all locations. Nitrate nitrogen is a routine test at Lubbock. Fee \$4 per sample. The above tests plus iron, zinc and manganese also are available from Lubbock and College Station. Fee \$7 per sample. Information sheets and sampling instructions are available from county Extension offices. D-494 and D-575 are for field and forage crops; D-495 is for gardens, lawns, etc. Reports include levels of available nutrients and suggested fertilization for crops listed on the information sheet submitted with the sample.

## IRRIGATION AND LIVESTOCK WATER TESTS (College Station)

Irrigation water tests include electrical conductivity, total salt, calcium, magnesium, potassium, sodium, carbonate, bicarbonate, sulfate, chloride and pH. Fee \$8 per sample. Additional optional tests: boron \$3, nitrate 50 cents per sample. Information sheets and sampling instructions (D-617) are available from county Extension offices. Salinity reports include a quality rating for irrigation water. Suitability for livestock consumption is provided on request.

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#### LIVESTOCK WATER TEST (Lubbock)

This test includes total salt and nitrate. Fee \$2 per sample. An evaluation based on test results is included in the report.

#### SOIL SALINITY ANALYSIS (College Station)

Soil salinity analysis includes electrical conductivity (salt index), total salt, calcium, magnesium, sodium and pH in a saturated water extract. Information about the salinity hazard or potential effects on plants is included with the report. Fee \$7 per sample. Information sheets and sampling instructions (D-616) are available from county Extension offices. The report gives total salt level and salinity hazard for different crops.

#### MINERAL ANALYSIS OF PLANTS (College Station)

Greenhouse tomato petiole samples can be analyzed for up to nine elements (nitrogen, phosphorus, potassium, calcium, magnesium, zinc, iron, manganese and copper). Fee \$14 per sample. Information sheets and sampling instructions (D-752) are available from county Extension offices. The report gives nutrient levels as percentages or parts per million and indicates relation to critical levels. Also included is a rating to show if the plants are adequate or deficient in each nutrient.

Pecan leaf samples also can be analyzed for zinc. Fee \$4 per sample. Information sheets and sampling instructions (D-746) are available from county Extension offices. Results are reported as parts per million elemental zinc on an oven dry basis.

### FORAGE TESTING (College Station)

Forage tests available include protein, fiber and mineral analysis according to the following fee schedule. Information sheets and sampling instructions (D-1116) are available from county Extension offices.

A standard preparation fee of \$2.50 is added once for each sample regardless of the number of determinations requested. For example, group 1 would cost \$5.50 or a complete analysis would be \$21.

Group 1 - \$3	Group 2 - \$5	Others	
Phosphorus	Zinc	Crude protein	\$2.50
Potassium	Manganese	Nitrate	3.00
Calcium	Copper	Fiber (ADF)	5.00
Magnesium	Sodium		

The report includes analytical results as percentages or parts per million. A forage quality evaluation is included when requested.

For more information about soil fertility tests, salinity or forage tests, contact your county Extension office.

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