

SOIL ANALYSIS

THE KEY TO PEST FREE PLANTS



A successful landscape or garden maintenance program strives to create a fertile soil. The goal of a sustainable fertility program is to achieve a favorable environment for plants and millions of beneficial organisms known as the soil foodweb. These microscopic critters assist plants in obtaining moisture and nutrients. Many help your plants resist drought and fight off a variety of pests including weeds, diseases, and insects.

Soil Fertility

The goal of a River Friendly fertility management program is to feed the soil not the plant! A healthy soil is a diverse ecological system with an abundance of beneficial soil organisms. These members of the soil foodweb create favorable conditions for healthy, pest resistant plants. Actinomycetes recycle organic matter making nutrients available for plants and produce natural antibiotics that help control plant diseases. Bacteria secrete sticky substances that glue soil particles together creating soil structure and are critical in making nitrogen available to plants. Beneficial fungi's root-like structures tie soil particles together creating soil structure. With improved soil structure air, water, roots, nutrients and beneficial soil organisms can more easily move through the soil making the soil operate much more efficiently. A healthy soil foodweb consumes nutrients from organic fertilizers, transforms them into forms that can be absorbed by plant roots and releases them right next to the roots as they are needed. They also produce plant growth hormones and help fight pests.

To achieve a fertile soil that will support a healthy soil foodweb the landscape and garden manager must create a favorable environment for these critical beneficial soil microbes. You need the proper levels of nutrients. Deficiencies, toxicities, and imbalances can all cause problems. The soil pH (acidity or alkalinity) needs to be within the desirable range, between 6.3 and 6.8 for most plants. The plants also profit from an abundance of organic matter.

A soil test is the only effective method to determine the current condition of your soil. Information provided by a soil analysis (with organic recommendations) will inform the gardener what fertilizers and soil conditioners need to be supplied to encourage a healthy soil foodweb that will create healthy, pest resistant plants. As a result, the need for costly and potentially toxic pest control services is reduced.

Traditional specialty fertilizers (e.g., lawn, rose, flower, and vegetable food) are designed to feed the plant not the soil foodweb. They do not treat existing soil deficiencies, toxicities and imbalances in your soil. Some new organic specialty fertilizers contain beneficial microorganisms that work well with those specific plants but the fertilizer still does not address the specific nutrient needs of your soil.



Soil Testing

There are two basic methods of soil testing. The first is to do it yourself by purchasing a soil test kit from a local nursery, hardware store, or mail order garden catalog. Kits test for the three major nutrients used by plants (nitrogen, phosphorous, potassium) as well as pH. The directions are simple and included with the kit. Making your own recommendations is not so easy. They also do not provide any information regarding trace minerals, organic matter, soil structure, soil texture or proper irrigation for that particular soil which are often the limiting growth factors in your soil.

A much more thorough method of soil testing utilizes a soil testing service. Although more expensive, the additional information obtained can make it very worthwhile. In addition to nitrogen, phosphorus, potash, and pH, most labs test for soil texture, micro-nutrients (calcium, magnesium, sulfur, zinc, manganese, iron, copper, boron) percentage of organic matter, cation exchange capacity, and more. Recommendations are typically brief and include synthetic fertilizers that are toxic to the soil foodweb.

It is important when choosing a lab that you find a reputable service that can provide you with extensive recommendations you can understand and that utilize organic management techniques. This should include guidance on soil fertilizers, organic matter sources, cover crops, and management techniques.

For more than 35 years Living Resources Company has been an industry leader providing some of the most extensive and easy to understand organic recommendations available. In addition to covering soil nutrition, LRC also discusses soil texture, soil structure and how they relate to proper irrigation. Competing soil labs may not provide any recommendations but supply a booklet that you must interpret for your needs (not an easy task). Others provide very brief recommendations which are typically not organic. The 15 to 25 page recommendation from LRC provides specific information even a novice gardener can understand allowing them to design their own organic fertility program. Our local clients even get a recommendation for an organic fertilizer that LRC can manufacture to meet the specific needs of their soil.

Information provided from a quality organic soil analysis will assist the landscape and garden manager to formulate a custom fertilizer blend that meets the needs of your unique soil. These custom fertilizers will create a fertile soil with a healthy soil foodweb that is capable of growing healthy, pest resistant plants.

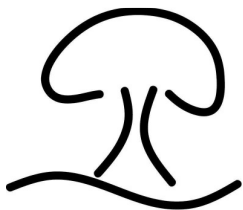
Living Resources Company can provide you natural, organic horticultural services:

Living Resources Company can assist you in achieving a beautiful lawn and landscape plus a highly nutritious vegetable garden organically without the use of toxic synthetic fertilizers and pesticides. LRC has been maintaining private and public lawns, landscapes and gardens organically in Sacramento since 1979.

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