

**SAMPLING PROCEDURE:** The soil is like an urban community: no matter where we knock, someone different will answer the door. In the soil, it would be rare if two samples could be found that produce the same test results, even if they were drawn a foot away from each other. So it is extremely important to get a good representation of the entire area being evaluated. The test results will only be as useful as the sample is accurate. A zig-zag pattern is usually recommended to ensure results that are relative to the overall condition of the area. The number of samples taken should depend on the size of the area. The more samples taken, the better the representation.

Noticeably good or bad areas should be avoided (unless evaluation of a specific spot is needed). The conditions in these areas are extremes of one sort or another and will adulterate the average reading of an area. For obvious reasons, freshly fertilized or limed areas should also be avoided.

Very clean tools should be used for gathering samples. A small amount of rust on a shovel could be interpreted in a test as a good place to start an iron mining operation. An example of an incident that gave misleading results from contaminated tools is the client who used the same shovel to draw samples that he normally used to clean out ashes from his wood stove. The results of the test were so far off that they may have well been from a lawn on the planet Potassium.

Soil sampling tubes are the most efficient and accurate tools for drawing soil, even if sampling occurs only once a year. They significantly increase the speed of the sampling procedure while decreasing labor costs and the chances of contaminating the sample. These tubes are durable, relatively inexpensive, and can be purchased from most horticultural suppliers.

Avoid wet or frozen samples. The proper consistency of a soil sample for analysis is moist but not soaked. The sample should ball up when squeezed, no water should drip out and the ball should crumble easily. Drying out the sample is an acceptable procedure if necessary, but to preserve the original conditions of the soil, samples should not be drawn until the soil is at a proper moisture level. If the soil in question is naturally sandy and dry, do not attempt to moisten it.

The sampling depth for most applications should be about five to six inches. Scrape off any surface debris, such as roots or thatch, from the top of the sample. When all the samples from a given area are drawn, mix them thoroughly and take a representative sample of approximately one cup to send to the lab. Again, to preserve accurate results, send the sample to the lab right away. Avoid letting it sit for an extended period of time.