

Collecting Plant Samples for Identification

Generally there are two main reasons for collecting plants: one is to obtain a record of a plant in an area; while the other is to identify an unknown. Whether you are a gardener, a naturalist, or a commercial producer you will be faced with the need or desire to collect and identify a plant.

The first step is the equipment. There are a number of items which can be used, however, only a few are essential which include plastic bags, labels, notebook, hand lens, trowel or shovel, clippers, and possibly a plant press.

In many cases most or all features of a plant will be needed to identify it properly. Be sure they are complete as possible by including flowering or fruiting parts, along with leaves, stems and roots. Depending on the time of year this may not always be possible, however, the most important consideration is to get as much of the plant as you can. In the case of very large plants a sample of each of the plant structures should be sufficient and be sure to include lower and upper leaves if they appear different.

Some important information that should be recorded includes: date of collection; specific location or habitat; flower colour; smell; height; growth habit (upright, prostrate, branched, etc.); and anything else that might not be readily apparent in the collected sample. Always keep samples separate and label them to avoid confusion.

Proper collection and preparation of the specimens is important to give as much information about the plant as possible. Depending on the intended use and time between collection and identification, there are a couple of ways to handle your plant samples.

If collected for identification purposes and this will take place within a couple of days the sample can be preserved by putting it between sheets of moist paper towel and placing it inside a plastic bag. When dealing with aquatic plants, muddy roots should be washed and the sample floated onto absorbent paper. Samples should be placed in a fridge until you, or someone else can identify them. If they are to be sent away for identification they should be placed in a padded envelope and mailed as soon as possible. Aquatic plants should be kept in water and prepared just prior to sending. Be sure that they will not be in transit over a weekend to preserve their quality.

If the period between collection and identification will be extended the use of a plant press is a good method of preserving them until this can be accomplished. Pressed plants will retain their colour and form for many years, therefore this method is generally used for study or reference materials. A plant press consists of layers of newsprint, blotter paper and cardboard between a wooden frame held together by straps. If the sample will not fit neatly within a press the stem can be bent into a zig-zag. For larger or very brittle samples a piece of the stem can be removed to fit within the press. Be sure not to discard any important structures and make note of how much is removed. This method and press construction is described further at:

<http://museum.gov.ns.ca/infos/plants/>