

IDENTIFICATION OF UNKNOWN PLANTS

One of the functions of the Arnold Arboretum staff is identification of unknown plants for the public. Since the accuracy and completeness of an identification depends not only upon the competence of the person making it but also upon the adequacy of the sample provided, some suggestions on preparing samples for identification are offered here.

In plant identification, as in any scientific effort, the more information we have about the problem, the more likely we are to obtain a satisfactory solution. Frequently we receive a snippet of twig, perhaps 2 or 3 inches long, with a few leaves—and we are then asked to provide an accurate and complete identification. With luck, some staff member will be able to recognize it on sight to its *species*—and if it is unusually distinctive, to its *variety*. But it is almost impossible to identify such a scrap to its *cultivar* (horticultural variety).

There are about 250,000 different plant species in the world. In the United States and Canada there are probably about 20,000 species of plants in cultivation (and many cultivars of some of these). About 5,000 of these species are common in cultivation. An individual botanist or horticulturist can recognize at sight up to 3- or 4,000 species. In addition, he can recognize many more plants to their *genus* or *family*, and then determine the name of the individual plant with the help of plant keys. The point is that no one, no matter how studious, can be expected to identify at sight all of the 5,000 or so common garden plants, not to mention all of the others not usually found in cultivation.

Identification of unknown plants at an institution like the Arnold Arboretum ought to be a two-way street. The questioner ought to find out the name of the plant that he is interested in (and he often also wants to know where to obtain the plant and how to grow it). But the identifier ought to get something, too—he wants to learn something about the habits of the plant—its growth, its hardiness, its usefulness, or the nuisance that it may cause. He would also like to have a specimen of the plant to keep, to tie all this information together for future reference.

What Should Be Sent When You Want to Know the Name of a Plant?

1. **A piece of the plant.** Send a twig or small branch, at least 6 to 12 inches long, preferably with leaves. When possible include flowers and/or fruits. Sometimes it is impossible to obtain a complete specimen of a plant. If neither flowers nor fruit are available, send a good sample of leaves *and* twig. If leaves are gone but interesting fruits remain, send them—but be sure to include the twig to which they are attached.

2. **Notes on the plant.** Send information on the habit or shape of the plant; where it is growing; its flower and/or fruit color; fragrance of its leaves or flowers, if any; whether or not the fruits or leaves have been used for food or flavoring, and if so, a description of their flavor; and the source from which the plant was originally obtained. A sample form for recording this information is shown below.

3. **A color photograph, when possible.** A clear, sharp color photo of the more conspicuous features of the plant, e.g. flowers, fruit or overall shape, will often help in making an identification, especially if only an incomplete sample is available. This may be essential if you want a cultivar identified.

How Should You Prepare and Send a Sample for Identification?

In either of these two ways :

1. **Fresh specimens.** Place the sample in a plastic bag and seal tightly. Do not add water—the moisture in the sample will be enough to keep it fresh—excess water hastens decomposition. Place the bag in a strong cardboard box, or press between two sheets of cardboard, as suggested for dry specimens (below).

2. **Dried specimens.** Place the sample between 5 to 10 folded sheets of dry newspaper and press under 2 or 3 large books for several days. Then place the sample (in a single folded sheet of newspaper) between 2 sheets of cardboard and tie or tape securely to prevent damage from bending.

GORDON P. DEWOLF, JR.

YOUR NAME _____	DATE _____
YOUR ADDRESS _____	ZIP CODE _____
LOCATION OF PLANT (IF DIFFERENT FROM ABOVE ADDRESS)	

DESCRIPTION OF PLANT GROWTH HABIT _____	
HEIGHT _____	FLOWER COLOR _____
HABITAT (WET OR DRY SUNNY OR SHADY ROCKY ETC) _____	

OTHER OBSERVATIONS _____	
