



COLLECTING ALASKA NATIVE PLANTS FROM WILD STANDS

by

Dr. Patricia S. Holloway
Associate Professor of Horticulture

Collecting live plants from wild stands can be an easy or a very frustrating undertaking. Most home gardeners are well aware of the ease and success with which one may dig such plants as wild iris (*Iris setosa*) and tundra rose (*Pentaphylloides [Potentilla] fruticosa*). On the other hand, the survival of transplanted pasqueflower (*Anemone [Pulsatilla] patens*) is dismal. Regardless of the success or the purpose, native plants should only be collected from the wild as a last resort. Many Alaskan greenhouse businesses sell native plant materials (choose those that grow their own rather than harvest from the wild), or learn methods of propagation from seeds or cuttings so that your impact on wild stands is minimized. Do not dig any native plant unless you have a suitable location for transplanting and can provide the conditions necessary for survival.

GET PERMISSION FIRST

Before attempting to dig any live plants from the wild, know the legal, ethical and common sense regulations for collecting wild plants. Do not collect plants in national parks and wilderness areas, state parks, on private property (including native land claims) without permission, in state or national campgrounds and trails. Be knowledgeable of the list of threatened and endangered species in each state. Collection of these plants, including cuttings, seeds, and spores is prohibited.

Plants may be collected at construction and excavation sites or on private property with permission. Plants may be collected at least 50 feet back from highways on undesignated state lands, and at least 200 feet back from established trails, roads and campgrounds in national forests. Some restrictions may apply in specific national forests. For instance, in the Chugach National Forest collecting is prohibited in the Portage Valley and Turnagain Pass. All national forests require permits for commercial collection of wild plants.

TIMING

The timing of collection can mean the difference between success and failure. Plants are best collected very early in the season before bud break or late in the season after terminal growth has ceased and buds have set. Avoid very late collection dates (after mid September in the Interior) if plants will be grown outdoors. Plants require a period for root growth prior to freeze-up to avoid problems with frost heaving the following spring. This is especially critical for coastal areas with intermittent snowfall and winter freeze-thaw cycles. Avoid plants that are flowering or setting seed, or remove all flowers and seeds during collection. Newly-harvested plants rarely mature seeds, and flowering stalks usually die.

KNOW YOUR ROOTS!

Probably the single most influential factors in determining whether or not a plant will transplant well are the structure and extent of the root system and the soils. Know the rooting morphology of the particular species before you dig. Plants with very large tap roots rarely

transplant well. Other plants such as wild rose, *Rosa acicularis*, grow vegetatively by spreading rhizomes. Small shoots far from the mother plant may be very poorly rooted. Success in transplanting is significantly lower for these young shoots than the mother plant.

The most desirable plants always seem to be the ones virtually rooted into pure rock! If it will be impossible to obtain a large amount of soil surrounding the roots, leave the plant alone. The key to good transplanting is to dig the plants with as much soil as possible around the roots, keep that soil with the roots, and transplant both to a new site or container. This practice not only ensures good plant survival, but also transports microflora such as mycorrhizae that may be necessary for healthy plant growth.

DIGGING IN

Harvesting wild plants is not as easy as digging in your garden. Invariably, the soil is full of rocks and tree roots around and beneath which your plant has rooted. A garden trowel with a pointed blade works well for excavating small plants in sandy or silt loam soils, but an entrenching tool or small shovel and a hand saw may be necessary. Even the small saws on pocket knives come in handy for cutting through thick roots.

There is no concrete rule for the amount of soil to collect with a plant except to get as much as possible. This is obviously determined by the soils, the size of your containers, how strong you feel, and how far you need to carry it.

The best containers for transport are ones with solid, hard sides such as pots, soil collection cans, flats, even paper cups. The hard sides help maintain the integrity of the root ball and minimize root damage. These containers often are impractical, though, especially in remote areas. Clear plastic bags, from tiny quart-sized zip-locs to double-layer garbage bags work best.

Always try to stabilize the soil around the roots even in plastic bags. In tiny zip-locs, insert the whole plant into the bag, then wrap any excess plastic around the roots. Secure the root ball with a rubber band tied on the outside of the bag. For larger plants, wrap the plastic bag tightly around the root ball, and secure with string or a twist-tie around the crown of the plant. A second bag may be necessary to enclose plant stems and leaves. All foliage and stems should be enclosed in a plastic bag for transport.

Moisten the soils prior to transporting, but take care not to overwater. Any standing water in the plastic bag should be removed. Be sure to fill in you hole after digging. It can be harmful to unwary passersby and can cause roots of adjacent plants to dry out or die.

WHAT DO TO WITH A FIVE FOOT FIREWEED

Plants with tall stems, leaves or flower stalks such as fireweed (*Epilobium angustifolium*), wild larkspur (*Delphinium glaucum*) and many ferns, require stabilizing before transporting. Leaves and shoots may be tied together with flagging or string. Single shoots should be tied to a stake or tree branch that is inserted into the soil near the shoot. Tie the shoot to the stick prior to digging, and transport both.

TRANSPORTING AND PLANTING

Plants should be kept moist and out of direct sunlight during transport, especially if they are enclosed in plastic bags. They should be planted in containers or outdoors as soon as possible after collection. If planting is not possible, store the plants in a cool place (4-10°C; 40-50°F) out of full sun. Use a planting medium that emulates the texture, pH and drainage of the soils found at the collection site. Do not fertilize, but keep the plants watered and shaded until they become established.