



Alberta Native Plant Council Plant Collection Guidelines for Horticultural Use of Native Plants

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PLANT COLLECTION GUIDELINES FOR THE HORTICULTURAL USE OF NATIVE PLANTS

WHY GROW NATIVE PLANTS?

Interest in incorporating native plants in home gardens and landscape settings has increased dramatically in the past few years. There are many reasons why gardeners might be interested in growing native plants. And there are many reasons why conservation organizations such as the Alberta Native Plant Council support the use of native species in gardening including:

- As people grow native species, they learn and appreciate the diversity of native plants. This may in turn lead to an appreciation for the native habitats themselves and an understanding of their ecology and the need to conserve them.
- Native ecosystems are far more complex than can be replicated in a garden, but gardens can, in a small way, assist with maintaining native species on the landscape
 - providing habitat for native wildlife species in urban environments as well as native plants.
- The cultivation and propagation of native plants can be both an educational and a conservation measure to reinforce and spur on the preservation of natural habitats.
- Water conservation seems to be the issue that alerts many gardeners to using native plants. Choosing appropriate native plants is one of many practices that can both reduce water use in a landscape and result in a low maintenance garden.

WHY FOLLOW GUIDELINES?

Gardeners, should be aware that indiscriminate collecting of wild plants can threaten native plant populations and their habitats. The Alberta Native Plant Council encourages gardeners and nursery operators to be aware of acceptable ways to acquire native plants and to choose their species wisely.

Many plant societies across North America and in Europe have developed guidelines for the horticultural use of native plants. The guidelines that follow are based on those developed by the Maryland Native Plant Society using information from the North American Native Plant Society.

If you would like to grow native plants, we encourage you to follow these recommendations. They are developed to help preserve the native flora, while providing opportunities for gardeners to enjoy the many benefits of native plants in their own gardens.

CHOOSING THE BEST SPECIES

Begin by using plants and seeds of common species that have originated in your immediate Natural Subregion. For details on Alberta's Natural Regions and Subregions, go to <http://www.cd.gov.ab.ca/preserving/parks/ahic/themes.asp>. Plants and seeds of local origin are best adapted to the local climate, soil, predators, pollinators and diseases. They also serve to familiarize others with the value and beauty of common species, communities and associations. "A Guide to Using Native Plants on Disturbed Lands" (1996) by Gerling et al. is a good source of information on some of the species that might grow successfully in a particular Subregion or habitat. Many other books that will help you identify the plants that you find are also listed in the reference section.

Learn which species are most likely to grow well in your garden. Many native plants are very difficult to propagate (see "Growing Native Plants From Seed" below) while other are easy to grow and maintain. Every garden is different. Moist shady gardens may be perfect for forest species, but poor habitat for dry, prairie plants. A little knowledge can save a lot of wasted time and disappointment.

Know which native plants to avoid. Some species are very aggressive to the point of obnoxious in a gardening situation. Many native plants are rhizomatous (e.g. sages [*Artemisia* spp.], violets [*Viola* spp.]), and although they are generally kept in check through competition and limited resources in nature, they can spread vigorously in garden habitats. Other plants are prolific seed producers (e.g. ragworts [*Senecio* spp.] and cut-leaf anemone [*Anemone multifida*]) and soon demand weeding.

PURCHASING NATIVE PLANTS

An increasing variety of native plants can be purchased from gardens or nurseries. A list of these can be found in the ANPC document "Alberta Native Plant Source List." Plants should only be purchased if certified by the vendors as "Nursery Propagated", meaning that they have been grown from seed or clones in the nursery. Avoid the purchase of wild-collected plants. It can be difficult to know if the plants for sale have been collected from the wild. Here are some suggestions:

- Question ambiguous phrases such as "Nursery Grown" because this often means that the plants were collected in the wild then grown in the nursery until large enough to sell. Such plants were still wild-collected and should not be purchased.
- Orchids, trilliums, insectivorous plants, and other difficult- or impossible-to-propagate species should not be purchased, because they have almost certainly been collected in the wild. In vitro propagation may someday allow gardeners an ethical way to add these plants to their collections.

Know which species are actually native to your area. Be aware that so-called "wildflower" seed packages often include species not native to your area. For more information on this issue, see the "ANPC Guidelines for the Purchase and Use of Wildflower Seed Mixes" posted on the ANPC website at <http://www.anpc.ab.ca/content/resources.php>

COLLECTING NATIVE PLANTS

It is tempting to just go out and get your own native plants, but there are some issues to consider. Generally, digging up plants is discouraged because digging can:

- eradicate or drastically reduce populations of native plants.
- disrupt the habitat for other plants, damages roots, and increases erosion.
- leave behind disturbed areas that are prone to invasion by weeds, further degrading the habitat.

In addition, many plants depend on other plants, fungi, or special soil conditions, and these species will not survive if removed from their native habitat. Plants dug when they are blooming are very vulnerable, and are unlikely to survive the transplant. Many native plants have deep roots or taproots which are very difficult to remove intact, but the plants will not thrive when their roots are cut. By digging up such plants, you cause all the problems discussed above, and still do not end up with a plant that is likely to survive in your garden.

When collecting plants from the wild, only seeds (or cuttings for some woody species) should be taken.

Before Collecting

- Obtain permission from all landowners (private or public).
- Learn your local flora and collect in your immediate Natural Subregion.
- Be sure you know which species NOT to collect, including:
 - o Rare species
 - o Weeds and invasive alien species
 - o Species that are difficult to propagate
- Learn appropriate propagation methods (see "Growing Native Plants From Seed").
- Learn which woody species will grow from cuttings and which will not.
- Observe the plants in their natural habitat to mimic accurately their natural growing needs. Notice the soil, light and moisture required for proper growth.

Collecting

- Do not disrupt native plant communities, either in the wild or on private property.
- Do not dig up plants.
- Transplant native plants from wild settings only when the plants in a given area are officially slated for destruction (e.g., road construction, subdivisions, pipelines, golf courses, etc.).
- Learn how to collect and store seeds properly, so that they are more likely to grow into viable plants.
- Collect no more seeds than you can propagate.
- Ideally, seeds should be collected from large and healthy populations, but remember, even common plants with healthy populations can be adversely affected by over-collection.
- Never collect all the seeds from a single plant or from a small group of plants of the same species. Collect a few seeds from different plants within a population.
- Leave most seeds (we suggest leaving at least 90% of seeds) for natural dispersal and as food for animals. This is sometimes called the 10% rule i.e. take only 10%.
- Some woody species can be successfully propagated from cuttings. When rooting cuttings of woody plants, it's important to know which parts of the stem and which

type of stem will root best. Timing is often critical. For example, stems from some species root only in the spring.

- To minimize the effects of cuttings, collect twigs only from well-established trees or shrubs, and take only a few twigs from any given plant.
- Do no damage the surrounding flora and fauna. Leave no evidence that you were there.

GROWING NATIVE PLANTS FROM SEED

- Keep accurate records of where, what, and when you have collected seeds, and mark each seed container with this information.
- Many native plants require special techniques for germination (e.g. stratification - exposure to a period of cold; scarification - abrasion of the seed coat to make it more permeable to water). Groups such as the Edmonton Naturalization Group (<http://eng.fanweb.ca/>) and the University of Alberta Devonian Botanic Garden (<http://www.devonian.ualberta.ca/>) can help you to learn what these are.
- Keep track of what works and what doesn't work. Consider sharing this information with others involved in growing native plants.

DEFINITIONS

Native plant species are species indigenous to a particular region. In Canada, these are plants that were in the landscape prior to Euro-American settlement. Native species are recognized for their intrinsic value as part of natural ecosystems.

Alien plant species are species not native to Alberta. Some have been purposely brought into the province as agricultural or horticultural species, but others have been accidentally introduced. There are hundreds of introduced plant species in Alberta, and some of these are also invasive. Once established in an area, invasive aliens can replace native plants by aggressive competition for resources or by direct chemical antagonism (allelopathy). Co-evolved herbivores and diseases are often absent, and this can allow populations to grow rapidly. Some alien invaders have significant impacts on natural habitats. To learn more about aggressive weeds in Alberta, check out the "Rogue's Gallery of Invasive Non-Native Plants" on the ANPC website at <http://www.anpc.ab.ca/content/resources.php>.

Rare plants are native species that have a small population in Alberta, occur only in a small portion of the province, or are both few in number and limited in range. Generally, a rare plant is considered to be any species on the Alberta Natural Heritage Information Centre (ANHIC) Tracking and Watch Lists - Vascular Plants, Mosses, Liverworts And Hornworts (check the ANHIC website www.cd.gov.ab.ca/preserving/parks/anhic/flashindex.asp for the most current update). Tracking lists include elements of high priority because the taxa are rare or are of conservation concern for some other reason. While species on this list do not necessarily have any legal status, some plants have been legally designated under provincial legislation. These can be viewed at <http://www3.gov.ab.ca/srd/fw/speciesatrisk> or by contacting the Alberta Sustainable Resource Development, Species at Risk Program. Some plant species are also protected by federal legislation under the Species at Risk Act. Information on these can be viewed at <http://www.cosewic.gc.ca/index.htm> or contact COSEWIC Secretariat, c/o Canadian Wildlife Service, Environment Canada. Ottawa, Ontario K1A 0H3 (Tel.: (819) 953-3215 or Fax: (819) 994-3684).

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