

Society for Ecological Restoration – Ontario Chapter
Native Plant Growers Guidelines (last revised January 15, 2010)

These guidelines outline the basic requirements for restoration-quality seed and plant stock for use in Ontario. The intention is to provide plants that are appropriate to the place where they will be planted in terms of local seed source (biologically appropriate) and which cause no disruption to the natural plant community from collection activities.

In this document **indigenous** plants are simply those that grew in a particular place prior to settlement by Europeans (= **locally native**). They are preferable to **native** plants as currently used in the nursery trade, which may or may not be indigenous to Ontario or a particular area in Ontario.

The word **restoration**, as used here, refers to any project whose purpose is to re-create a natural vegetation community for any purpose using indigenous plants. It can include reforestation, reclamation, habitat creation, and should also include landscaping near natural areas.

Seed source

1. Species propagated must be Ontario indigenous plants, which have originated from provincial, but preferably regional or local populations. A general rule for most species is to use seed from plants growing naturally within 100 km of the restoration site. Use of software such as *SeedWhere* (McKenney et al, 1999) may provide additional areas suitable for collection that are further away from the project site, but that may be just as suitable as more local collection areas.
2. Non-invasive exotic species may be used for temporary cover crops to allow the desired natural community to become established e.g. annual rye. Invasive exotic species should not be used under any circumstances. A list of invasive exotic species is found in the publication "*Sustaining Biodiversity: A Strategic Plan for Managing Invasive Plants in Southern Ontario*" (City of Toronto, 2000) available on the SER Ontario website www.serontario.org.
3. Discretion should be used before providing species to areas outside their historic natural range in restoration projects. More flexibility in species choice is acceptable for natural landscaping projects that have no potential to affect local natural vegetation communities.
4. Certified indigenous seed that is source-identified should be preferred for use once a system of certification has been created. The Forest Gene Conservation Association of Ontario (FGCA) has a seed source certification program in place for tree species seed, and Tallgrass Ontario is working on a program for prairie herb seed.

Seed collection from the wild

1. Seed should only be collected from large populations. Collect no more than 10% of the seed crop.
2. Seed should be collected from numerous individuals with the intent of sampling as much of the local variation as possible.
3. For uncommon species, nursery propagated seed from stock plants is preferable to collecting in the wild. In nurseries, beware of stock plants that have adapted to nursery conditions and which may no longer survive in the species' natural conditions. Introduce new stock plants at intervals.

Nursery propagated plants

1. Cuttings should be collected from a number of individuals from several locations. For dioecious species, both males and females should be present in equal numbers where possible.
2. Plants should be grown in conditions similar to probable out-planting sites to minimize transplant shock and improve survival. Growing in ideal conditions for plant growth is more profitable for a nursery, but reduces the plants fitness for survival in the wild.

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3. All plants should be sold labeled with their correct, full botanical (Latin) names. Names should not be shortened e.g. *Alnus incana* spp. *rugosa* shortened to *Alnus incana* - allowing possible confusion between an indigenous and an exotic species.
4. Correct identification of stock is absolutely essential. For species that are difficult to identify, growers should consult with a competent botanist before advertising indigenous species for sale. If any reasonable doubt exists, buyers should be warned or the plants not sold. Hybrids, whether natural or man-made must be labeled as such.
5. Commercial cultivars are not acceptable for restoration projects because they are cloned from a single individual. e.g. *Sambucus canadensis* 'Aurea' or *Thuja occidentalis* 'Nigra'. All propagated plants have undergone some form of selection whether intentional or not, however the intent is to avoid deliberate selection for desirable horticultural traits that may reduce a plant's fitness for survival and reproduction over the long term.

Plant quality

1. Nursery propagated plants for restoration should be of equivalent quality as landscape plants. Specifications are available from Landscape Ontario. Stock sold as "Conservation Grade" must still be as healthy as regular stock but may have aesthetic imperfections.
2. Many indigenous species will not have the same growth form as cultivated species e.g. *Salix nigra* almost never grows in the form of a "standard" tree. More allowance for natural form needs to be permitted in planting specifications for some indigenous species.
3. Restoration quality stock need not be pruned into standard horticultural forms, which raises their cost. Projects often buy large numbers of plants with limited budgets and need to keep costs low.

Plant collection from the wild

1. Nursery propagated plant material should be used whenever possible to avoid depleting natural populations and creating a disturbance on a site.
2. If suitable nursery propagated plants are not available, collect no more than 10% of a population, and allow the remainder to regenerate before collecting from the same site again. Wild collected plants can transport unwanted invasive plants, so make sure that the plants are free of them. Seed or cuttings should be collected in preference to entire plants.
3. Only common, widespread species, particularly those early successional species that reproduce asexually and are known to survive transplanting should be collected. Examples are asters, Virginia waterleaf, ostrich fern, red osier dogwood, and staghorn sumach.
4. Collection from isolated populations or single individuals is not recommended because of the possibility of inbreeding. Salvaging of threatened plants would be an exception.
5. Collection of regionally, provincially, or nationally rare species is not acceptable without a scientific rationale and professional guidance. Listed Species at Risk cannot be collected or propagated without a permit from government authorities.
6. Salvage of plants from areas due to be destroyed (also known as plant rescue) is permitted if no possibility of changing development plans exists. It is always most desirable to preserve plants in their own habitat. Salvaged plants should be labeled as salvaged or wild collected.
7. Wild collected plants should be allowed to reproduce in nursery conditions as stock plants, with only the new reproduction being sold. Sell first generation propagules to avoid nursery ecotypes being created.

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8. Exercise caution when purchasing rare species, or those that are known to be difficult to propagate, from unspecified sources or where they are available in large numbers e.g. orchids, trilliums, and some ferns. They may have been illegally dug from the wild. Contact knowledgeable people to see if the seller is legitimate and ensure the plants are certified in writing as “Nursery Propagated”. Buyers and growers should be equally vigilant about the original source of their plants.
9. Plants dug from a nursery's own property or purchased from another landowner are still considered to be wild collected if the area is not under threat of development. A natural community is still being depleted.
10. Since wild collected plants may be in a stressed condition at the time of collection, they should be tended for at least one season under nursery conditions to regenerate lost roots and regain their vigour.

Education & Information Exchange

1. Keep and maintain accurate and complete collection records. Share these records with the buyers and appropriate authorities.
2. Make information available about storage, germination, and propagation so that others can learn. You may be the only nursery that has the knowledge, and future generations will need to know.
3. Educate users on local plant communities, appropriate successional stage for planting, and the specific site requirements of the plants being sold.
4. Growers should fully and honestly disclose the source of the plants they grow or sell. Buyers may be willing to accept less than perfection but must be fully informed to make sound decisions.
5. Inform appropriate authorities of locations of rare plants (e.g. American ginseng) so that they can be studied and protected. Be cautious about sharing the location of these plants with non-professionals to avoid the possibility of plant theft.