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Woodland Notes

Choose Ontario's Natural Selections – Because Seed Source Matters

By Barb Boysen, Coordinator, Forest Gene Conservation Association

For the past seven years, the Forest Gene Conservation Association (FGCA) has promoted the importance of locally adapted seed sources for reforestation and restoration programs. We are now introducing a new program – a seed source certification program, *Ontario's Natural Selections* – to help ensure that locally adapted seed sources are available for consumers to choose. This program is a new tool for us to use, along with education and marketing, to help us address our broader mandate – conservation of the genetic diversity of Ontario's forests.

It's all about putting the right tree in the right place, respecting that Ontario's native woody plants have evolved to be specially adapted to local climates and sites – a process of natural selection. The right tree in the right place means the right species and the right seed source. These are the most important factors in the success of any planting project – both urban and rural, one tree or a thousand trees. Your planting will thrive for decades, even centuries, if you

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- ✓ Know your planting site – its soils, drainage and climate;
- ✓ Choose the right species – suited to your site and landscape; and
- ✓ Choose the right seed source – matched to your site conditions.

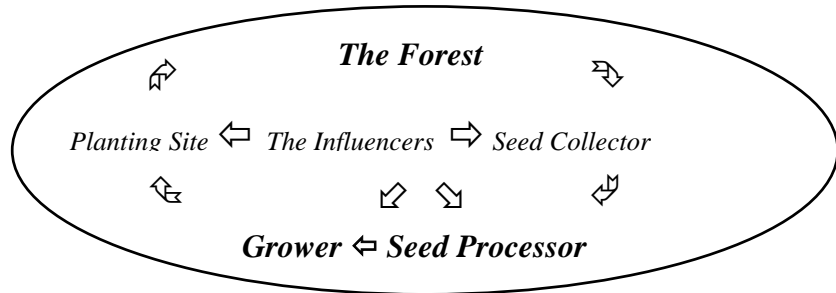
As you begin your search for planting stock, we want you to ask the growers about seed source. Growers participating under the *Ontario's Natural Selections* program will have certified stock, meaning the source of seed will have been tracked from forest to collector to grower. This stock will be labelled by seed source to allow you to choose the most appropriate source.

The *reforestation loop* in southcentral Ontario has many players. The FGCA has been working with them as we developed and now as we implement our new certification program.

The Forest

We are working to educate landowners about yet another reason forests are important – as a source of adapted seed for future generations of forests. If we don't maintain healthy, mature populations of the many native species in each of the different geographic regions of Ontario, our future regeneration prospects won't be good – for natural regeneration or planting. Landowners could consider allowing certified seed collectors access to their forest for seed collection.

The basic level of certified stock will be “source-identified” – that is the geographic location of the source of seed must be known and registered with the FGCA. For some consumers, it will be important to know that the seed came from a stand of particular value, not just any population in a general geographic location. In this case, the FGCA will describe and certify the stand itself. This gives it a “select” certified class versus the basic “source-identified” class. Examples could include:



- ✓ A particularly healthy, large, mature, fast-growing stand of white pine.
- ✓ A healthy source of a disease-threatened species, such as butternut or white elm.

Seed Collector

Certification is a two-part process for the person and their product. The FGCA certifies seed collectors through a two-day course on seed collection methods, the importance of high-quality seed and genetic diversity and their role in helping to maintain it. After completing the course, they must sign a code of Ethics and Practice. In order to sell their seed collections as certified, they must register the location of the collection. A unique number is assigned to the seedlot, which allows the FGCA to track it to whatever seed processor(s), or grower(s) handles it. The collections can be subject to a spot audit to ensure the source is accurately represented.

Seed collectors are a key link, but the job of a seed collector is a difficult one and a seasonal one at best. They must be familiar with many different species – there are well over 100 woody plant species in Ontario.

They must know what sites to search, when the seeds mature, and how to collect and handle them to ensure high-quality, viable seed. Add to this the twist that few species produce abundant

<u>Required information</u> for a certified seed lot (example of a fictional white pine seedlot)	
Requested source identity for label: Lanark County – Seed Zone 35	
Scientific Name: <i>Pinus strobus</i>	Common Name: White Pine
No. of Acres: 20 acres	No. of seed-producing plants: 100+
Natural stand or Population: Yes	Planting of known origin: <input type="checkbox"/> , specify – N/A
No. of specimens collected from: 10+	Amount collected: 3 hectolitres of cones
Collection date: September 4, 2000	
<input type="checkbox"/> Directly from plant(s) <input type="checkbox"/> From the ground <input checked="" type="checkbox"/> From a squirrel cache	
Location, address or legal description for inspection: Lot 4, Con. V, Lanark Twp., Lanark County	
Signature of Applicant: Billy Cone	Date: October 5, 2000

seed every year. In the lean years, it can be tempting for collectors or growers to bring seed in from other areas to meet local demands. Hence the need for certification and audits.

Consumers can help by planning their projects well in advance to give collectors and growers the lead time necessary to be able to supply their needs.

Seed source information – if collectors do not record this information, it won't exist for you the consumer to review:

Grower and Seed Processor

We have begun to certify interested growers and seed processors. In southcentral Ontario there is only one large seed processor, the Ontario Ministry of Natural Resource's Ontario Tree Seed Plant (OTSP). The OTSP also provides a seed storage service.

<u>Optional information</u> for a certified seedlot (example of a fictional white pine seedlot)	
Population description: mixed stand of white and red pine.	
Approximate age: 80+	Approximate size of individuals collected: 20 m
Exposed location: main canopy	Understory location: N/A
Crop: Heavy <input type="checkbox"/> Medium <input type="checkbox"/> Light <input checked="" type="checkbox"/> Insect Sign: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Describe: N/A	
Other vegetation: sweet fern, honeysuckle, bracken fern and serviceberry.	
Site:	Soil texture: loamy sands Soil Depth: 1+ metres Site aspect: west slope Topography: rolling
Other notes: stand is threatened by golf course expansion	

This is important in the years where there is no seed crop. (2000 was a good year for many species; however, 2001 is a poor year for many species.)

Some growers collect and process their own seed. For some species, such as oak, little to no processing is needed, and the seed is directly stored or sown. There are only a few large growers of native woody species in southcentral Ontario. There are many small growers who operate in local areas. Some growers will bring seed or stock in from the United States – from sources that may or may not be suitable to Ontario sites.

Once again it is a two-part certification process – this time for the facility and their product. A facility is inspected initially to ensure they have a data system and operational system to keep track of seed source identity. In order to sell their seed collections as certified, they must register the unique certified seed lot number. The grower must also label the plant or invoice to allow consumers to check back with the FGCA about the source of the stock they purchase. The facility will also be subject to spot audits to ensure they are operating according to certification program standards.

Planting Site

If certified, source-identified stock is matched to the conditions of the planting site; the landowner can be assured they have the potential to obtain the best possible results. In some cases, where landowners are interested in selling forest product from their land, using certified

planting stock can help them to be certified under various forest certification programs, where attention to conservation of genetic diversity is a required standard. However, buying the right stock is only the beginning of a planting project. Follow-up work is needed to ensure the trees continue to thrive, including proper stock handling and planting methods, vegetation control, and protection from pests and possibly future thinnings.

The Influencers

There are many groups who work to help landowners with their reforestation efforts in some or all stages of the loop. The FGCA has been working with these groups to help them spread the message that successful reforestation is a complex business and that planning and follow-up are essential to success. They include conservation authorities, stewardship councils, landowner associations, forest industry and consultants, etc. These groups can also help to influence the seed collectors and growers by creating a demand for source-identified stock.

We'd like you to help make our seed certification program a success – so that your reforestation effort will be a success. Ask for source-identified stock – ask for **CERTIFIED** source-identified stock.

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