

## Introducing and Promoting British Columbia's Native Plants for the Urban Landscape

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British Columbia has a rich flora of native plants because of its varied climatic regions—the very high rainfall of the Queen Charlotte Islands, the drier climate of eastern Vancouver Island and the adjacent Gulf Islands, the cold alpine areas of the many mountain ranges, and the arid regions of the province's interior Okanagan Valley.

The University of British Columbia Botanical Garden Plant Introduction Scheme (PISBG) has now resulted in the public release of 14 new cultivars, with over 5 million plants having been produced through the programme. Four of these plants are native selections: *Arctostaphylos uva-ursi* 'Vancouver Jade', *Ribes sanguineum* 'White Icicle', *Potentilla fruticosa* 'Yellow Gem', and *Penstemon fruticosus* 'Purple Haze'. With the cooperation of the BC Nursery Trades Association and the BC Society of Landscape Architects, these plants have been well promoted and have now largely found their niche in the market. *Arctostaphylos uva-ursi* 'Vancouver Jade' is now the most widely-grown ground cover in BC because of its ease of propagation, dense habit, attractive flowers, and diverse use in the landscape. *Potentilla fruticosa* 'Yellow Gem' has quickly caught on for retail and landscape sales; its advantages in Canada over existing cultivars are hardiness, compactness, and extended length of flowering time. The compact evergreen shrub, *Penstemon fruticosus* 'Purple Haze', has been well received by industry, with one of the first urban plantings being 3000 plants for a large residential development in suburban Vancouver. Sales of the white-flowering native currant, *Ribes sanguineum* 'White Icicle', have been disappointing so far. Shrubs that produce white flowers in early spring do not seem to sell well in BC, brighter colours are more popular. *Ribes sanguineum* is not a major crop in nurseries but we are confident this plant will be more popular in Europe.

As in many other countries, the use of native plants in the urban landscape is becoming more important. The reasons for this trend include environmental issues and native plants' adaptability for specific sites—for example, mine reclamation, revegetation, and stabilization projects. Nurseries that have specialized knowledge of forest seedling production have effectively integrated seed and deciduous hardwood cutting propagation of native plants into their production schedules. There is still considerable promotional work needed to encourage the retailer and home gardener to use native plants, particularly at peak sale time in spring with the competition from traditional colourful annuals and perennial plants.

Careful selection, evaluation, and commercial trials are vital with native plants for a variety of reasons:

- They can often be unsightly and inappropriate when brought into a landscape setting. This can result in invasiveness and poor habit. For example, a species from the dry interior region of the province may

become weedy or just die out under moist coastal conditions. The poor habit of a species may be less obvious in the wild.

- A native plant may have a short flowering season with small unattractive flowers, followed by dead seed heads and foliage that can also make plants unsightly.
- The species may develop considerable genetic variation, resulting in problems relating to quality from the nurseries and poor growth in the landscape.
- There may be inconsistency in propagation results.
- There may be cultural problems during nursery production, for example, poor response to conventional composts, nutrition, and overhead irrigation.
- The native plants may be too tall in containers and with poor flower colour at the time of marketing, thus giving an immediate negative impact to the retailer and consumer.

The potential for improved native plant selections has been a priority for the BC nursery and landscape industries. As a link with the Plant Introduction Scheme, the provincial and federal governments funded a three-year program to proceed with a systematic collection of native plants from different areas of the province. This work was carried out by K.W. Nicholls, research scientist for PISBG, and resulted in the collection of nearly 1000 specimens of vegetative material and seed. This germplasm, now at the Botanical Garden's nursery, will provide an important resource for selection, evaluation, and breeding.

Two more improved plants from the existing collections in the BC Native Garden component of the Botanical Garden, both of which show considerable genetic variation in the wild, have now been released to participating nurseries. *Vaccinium ovatum* 'Thunderbird' is relatively compact with outstanding reddish-coppery new growth and masses of pink flowers borne over a number of weeks. Clusters of black berries form during late summer. Another release is *Paxistima myrsinites* 'Emerald Cascade', a compact weeping form of myrtle boxwood or Oregon box. This hardy evergreen is particularly valuable for drier and colder locations.

An important partner in this program is the BC Ministry of Highways. They have provided useful advise and test sites, and, in turn, will be a major user of native plant introductions. The challenge will be to ensure that participating nurseries grow sufficient numbers for the large quantities the ministry will require. The types of plants they need in BC may be quite "ugly" in the garden setting or nursery production stage — BC Highways look for suckering, fast-growth, etc.

Taking a lesson from major nurseries, the Plant Introduction Scheme has made promotion and marketing a top priority. This has included exhibits at trade shows, media releases and interviews, colourful promotional sheets, and the design of custom-made labels to identify PISBG plants sold at retail outlets. Promoting the plants to landscape architects and contractors requires another direction. In addition to evaluation days to discuss trends for future years, a custom-designed folder will be produced for each landscape architect company in the province. This will contain the promotional sheets, cultural information on the plants' uses in the landscape, and names and addresses of suppliers.

Our experience in successfully introducing plants into the urban landscape can



be summarized by listing the following recommendations:

- Cooperate and liaise closely with the nursery and landscape industries. Ensure the final plant selections are made by landscapers and growers.
- Ensure effective evaluation with a strong emphasis on the plants' targeted markets.
- Thorough testing and evaluation, both under nursery conditions and in different landscape locations, of the plant's performance under the extremes of winter and summer temperatures. The programme currently has test sites across North America, although our experience has shown that it is not always possible to plan for every eventuality.
- Develop a strategy for promotion and marketing.
- Develop licensing agreements, where applicable, well before the plant is introduced. *Pride of Place Plants* (Blakedown, Worcestershire, UK) has signed a five-year agreement with the university to test and evaluate potential new plants for the European market.
- Choose easily identifiable cultivar names for mass marketing.
- Ensure there are sufficient plants in the system for introduction in future years.
- Keep abreast of future trends in the types of plants required for retail, wholesale, and landscape markets.
- Try to solve any problems that occur in the program immediately. Unnecessary delays can rapidly compound a problem.

A grant has been received recently from the BC Ministry of Agriculture under the "Applied Research Partnership" program in which matching funding is provided by the nursery industry, supported by the Henry M. Eddie Plant Development Foundation. The initial grant is for two years to fund a breeding program conducted by K.W. Nicholls, using mainly native plant material collected during the past few years. Plant breeding takes time, but it is important to take the long-term view as new plants must be on-line for future years. Once a new plant is developed, evaluated, and selected, the Botanical Garden's industry-advised marketing and promotion network will help to ensure it is quickly accepted in the industry and urban landscape.

## REFERENCES

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