

Policy on the Sale of Rare Plant Species
North Carolina Botanical Garden
The University of North Carolina at Chapel Hill
July 2008

The overriding policy of the North Carolina Botanical Garden is that its activities will support the conservation of the plants and natural areas in North Carolina and the Southeast. Our sale and promotion of horticultural use of rare plants shall be accepted when these activities benefit conservation goals and will be rejected when these activities compromise conservation goals.

The potential conservation benefits of the commercial availability of rare plants are these:

These plants are accompanied by educational materials that teach the significance, status, and conservation strategies for rare plants. Accompanying materials may include information about the plant's life history and ecology, the importance of genetic diversity, the ecology of their habitats, their threats in the wild, and the conservation programs of the Garden.

Growing rare plants provides direct experience in seed storage, germination requirements, and general cultivation practices.

Commercialization of rare plants can lessen the pressure on the collection of species from the wild. Examples include medicinal plants and plants prized by hobbyist collectors like carnivorous plants.

Despite these potential benefits, rare plants grown in horticulture (with the exception of those carefully done for *ex situ* conservation programs) are not conservation collections. They are not designed to capture genetic diversity (plants in horticulture usually include small numbers of individuals or individuals selected for horticultural traits), are recent plantings that may not be adapted fully to the site where used, they have an uncertain future (site owners, horticultural aims, or budgets for landscaping may change through time), and rare plants often lack the co-evolutionary relationships (e.g., pollinators and seed dispersers), that they would possess in natural populations. No species is an island – conservation must always address the community of organisms in a natural habitat rather than a species separated from its ecological context.

There are few and fortuitous cases in which the only remaining individuals of a species thought extinct in the wild are discovered in cultivated collections. Even in these cases, however, the outcome is not the result of a planned conservation strategy and the individuals are likely to be too few to capture much of the genetic diversity of the original wild population. While such plants as *Franklinia* and *Ginkgo* have been celebrated as species saved from extinction by gardeners, we cannot rely on horticultural activities to do what is needed to protect plant diversity. Horticulture results in selections directed towards plants that are considered beautiful, interesting, or useful, obviously a subset of the endangered flora.

We note also that the coming decades of climate change and the continued impacts of human land use may mean that new populations of rare species must be established on sites from which the plant is not known historically. Sometimes called “assisted migration,” gardeners and horticulturists may be important in such projects in the future. Once again, however, we note that this has to be done as part of a carefully

done conservation strategy in which genetic diversity, population size, and ecological habitat requirements are considered. It is not simply a function of horticultural availability and use.

The potential problems of the commercial availability of rare plants are several fold:

Some species are regulated by State or Federal agencies, requiring permits for their sale or possession. Selling these plants would increase the paperwork burden of those charged with this regulation. And there is no assurance that the “paper trail” will accompany these plants into the future.

Some species may be unknown from the State of North Carolina. Persistent cultivated collections, particularly if they spread away from the sites of cultivation, may result in time and energy being drawn away from other duties for research botanists, the state Heritage Program, and the North Carolina Plant Conservation Program.

Even if the rare plant is documented in the State’s flora, persistent cultivated collections, particularly if they spread away from sites of cultivation, can lead to uncertainty for the state Heritage Program and the North Carolina Plant Conservation Program in terms of populations for protection and restoration.

Some species may cause gene flow to natural populations, potentially resulting in outbreeding depression.

The public and government leaders may be misled to conclude that cultivated plants can replace the need to conserve species in the wild, in natural habitats, and without the biological and ecological associations required for sustained population viability.

It follows from the potential benefits and problems that each rare plant considered for sale at the North Carolina Botanical Garden be assessed. We will only sell rare plants, determined by the global and state status categories of The Nature Conservancy and the NC Plant Conservation Program, if the assessment shows that there is the potential for little or no harm to conservation goals.

We will not sell those species whose sale or possession requires a State or Federal permit. This will prevent our activities from causing a burden on regulators, ourselves, and the public. The regulatory environment may change through time, so the list of no-sale species will also change through time.

We will sell, however, North Carolina S1-ranked species and Southeastern native plants that are not present in North Carolina based on global ranking and status throughout their range rather than their ranking in any particular state. For example, NCBG will sell plants listed as S1 in NC if they are more widespread elsewhere and are not state-listed over their range.

Beyond the regulated species, the most endangered species globally are presumed those in the G1/G2 categories of The Nature Conservancy and those proposed for Federal listing under the Endangered Species Act. These lists are also likely to change through time, so the list of species subject to this policy would also change through time.