



Willowwood Journal

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THE WILLOWWOOD FOUNDATION IS A NON-PROFIT EDUCATIONAL ORGANIZATION INCORPORATED IN THE STATE OF NEW JERSEY WHICH WAS ESTABLISHED TO NURTURE AN APPRECIATION FOR AND KNOWLEDGE OF BOTANY, HORTICULTURE AND THE NATURAL WORLD THROUGH ITS SUPPORT OF THE PUBLIC EDUCATION, THE PUBLICATION OF, AND ACCESS TO, LITERATURE RELATING TO PLANT SCIENCE AND THE DEVELOPMENT OF FACILITIES TO PROMOTE, USE, AND ACCESS INFORMATION ABOUT NATIVE AND EXOTIC PLANTS.

Georgia Teaches

By Frederick R. Spicer, Jr.

Former horticulture manager, Fred Spicer, recounts his fascinating research trip to The Republic of Georgia this summer.

When Americans think of Georgia, they usually think of peaches, CNN and the Atlanta Braves. Most people are unaware of the rich, ancient culture and independent country that has the same name as our illustrious state. The Republic of Georgia lies on the Black Sea with Turkey to the southwest, Armenia to the south, Azerbaijan to the southeast and the Russian Federation to the north. The area of the Republic of Georgia is slightly less than that of South Carolina, and the country has a population of more than 5 million.

The range of topography and climate in this relatively small area is startling. It includes moist, subtropical areas along the sea, as well as a dry, temperate interior areas and hot, desert-like regions. The impressive Greater Caucas Mountains in the north boast peaks taller than 15,000 feet, with permanent glaciers, featuring alpine meadows up high and lush temperate forests in the lower elevations. The diversity in landform and precipitation harbors an amazingly unique and diverse flora of more than 5,000 native species--by comparison, California, at six times



The Institute of Botany's research center in Kazbegi.
Sorbus caucasius blooms in the garden
(Frederick R. Spicer, Jr.)

the size of the Republic of Georgia, has between 5,000 and 6,000. An estimated 30 percent of Georgia plants are found nowhere else. Moreover, a great many of the total number are not in cultivation in the West.

This June, a group of American horticulturists and nursery growers took part in a month-long expedition to observe, photograph and collect plants in the Republic of Georgia. With logistical and taxonomic assistance from the Institute of Botany in Georgia's capital, Tbilisi, the American team explored vast ecological preserves and cultivated areas throughout the

(Continued next page)

Renew thy collecting of acorns; and if thee can, send specimens to each which is a great curiosity. Get what sassafras berries thee can; and send as many Red Cedar berries, in a little box by themselves, as thee can afford for half a guinea...Send some Sugar Maple seed and Rose Laurel cones; and send a specimen or two of the Upland Rose and the Marsh Rose. Try what thee canst do to send us some cones of the Long-cone White Pine. It is a very remarkable pine--having five leaves in a sheath; and the other from Jersey, has two leaves. I have great hopes most of the plants will grow... From John & William Bartram's America, by Helen G. Cruickshank, The Devin-Adair Co., 1957.

The Rare Book Library: A Treasure Restored

Exotic expeditions, age-old herbal remedies, observations of renowned naturalists--these are just a few of the topics to be found in the Benjamin C. Blackburn Rare Book Library at Willowwood. Among the extensive collection are such classics as, *John & William Bartram's America: Selections from the Writings of the Philadelphia Naturalists*, 1957; *A Thousand Mile Walk to the Gulf* by John Muir, 1916; *Trailing the*

(Continued on page 3)

country in search of promising specimens. It is believed that a good number of the more than 300 plants collected have never been grown in America before this endeavor.

All seed, cuttings, divisions and whole plants were collected responsibly in the spirit of the Convention on Biological diversity and in accordance with the laws of both the host country and the U.S. First, collections were done with the knowledge and cooperation of the host country. No plants were collected that are known to be protected, threatened or endangered, and no patents or trademarks will be sought for any products resulting from this expedition. Plants known to be invasive exotic species or from genera known to have such qualities were not collected, either. Although the Republic of Georgia has plenty of beautiful *Ranunculus* (buttercup) and *Polygonum* (smartweed), they stayed there. Finally, proper import permits were obtained, phytosanitary inspections in Georgia and the U.S. were conducted, and all U.S. agriculture customs laws were adhered to.

Although the team gathered numerous species of woody and herbaceous plants, one of the major goals of this expedition focused on boxwood (*Buxus*). Because of its overall beauty and resistance to white-tailed deer browse, boxwood has fast become a landscape plant of major commercial and ornamental importance in the US. But previous bad experiences, the abundance of available cultivars (and sometimes their misnaming, whether accidental or deliberate), as well as the marked differences in their cultural needs, have led to confusion in the trade



Buxus sempervirens 'Memorial'

and a hesitation to use boxwood with confidence.

The National Boxwood Trials--recently established and actively coordinated by Paul Saunders, owner of Saunders Brothers Nursery, Piney River, VA--has more than 30 field trials in cooperating nurseries, arboreta, botanic gardens and universities, throughout the northeastern, mid-Atlantic, southeastern and midwestern US. The goal of this long-term evaluation is to sort out the confusion and determine the most desirable boxwood cultivars for general use in the respective regions. It is a timely and important study because the popularity of boxwood has significantly grown within the last 10 years.

Two *Buxus* species are native to the Republic of Georgia. The first, *B. sempervirens* (common box or English box), is widely cultivated in the West. It is a native to southern Europe, northern Africa and western Asia, but it is thought that the isolated native populations in Georgia are the easternmost of any. Occurring naturally as they do in the warm, temperate, central regions and having naturalized in colder areas following centuries of cultivation around churches and cemeteries, the plants in the Republic of Georgia could represent

forms with increased cold hardiness, sun and heat tolerance and/or resistance to root rot and "boxwood decline." Future regional evaluation in the U.S. is necessary to determine the full potential of the boxwoods collected during this trip.

Interestingly, Russian and Georgian taxonomists have long treated these populations as a separate species, *B. colchica* (colchic boxwood). Hopefully, DNA studies will be funded in the future to attempt to sort this out.

The second species, *B. hyrcana* (Hyrcanian boxwood), is not cultivated to any degree in the Western World, but it is ornamental and might be hardy to at least Zone 6. The participants taking part in this trip hope the new germplasm collected will prove valuable in breeding efforts, as well as for the introduction of specific forms. Plants collected from the Republic of Georgia could be bred with existing cultivars to create superior offspring, or perhaps one of the variegated plants discovered (or the strongly fastigate form brought from a roadside "nursery") will make a suitable show in the U.S.

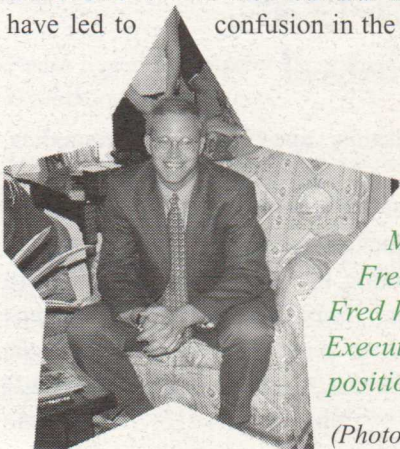
Although boxwood was the primary focus of the expedition, the team members hope that many of the other plants they collected will prove noninvasive and useful. Some of these plants had never before been seen by horticulture professionals.

The expedition team not only saw the natural beauty, grandeur and diversity of the Republic of Georgia, but it got to learn about the rich culture and the long, wonderful history of this country. The people are friendly and generous. The food is delicious. The participants hope this venture represents the first of many such contacts with our learned colleagues in Georgia, and they look forward to a continuing relationship of mutual cooperation and benefit.

(Reprinted with permission, American Nurseryman, Sept. 15, 2001, Vol. 194, No. 6.)

Fred Spicer has been an invaluable resource as manager of horticulture for the Morris County Park Commission the past five years, where he has overseen both the Frelinghuysen Arboretum in Morristown and The Willowwood Arboretum in Chester, NJ. Fred has ended his tenure with Morris County to join The Birmingham Botanical Society as Executive Director. The trustees and staff of Willowwood wish him the best of luck in his new position and appreciate all he has done to make Willowwood such a special place.

(Photo courtesy of Daniel Will)



(Rare Books cont'd)

Giant Panda by Theodore Roosevelt and Kermit Roosevelt, 1929; *The Queens Closet Opened. Incomparable Secrets in Physic, Chirurgery, Preserving, Candying, and Cookery*, 1655.

Willowwood Foundation trustees Peggy Krementz and Janet Allocca have done an wonderful job of preserving and protecting the amazing collection of literature that was amassed by the Tubb's brothers and Dr. Ben Blackburn. Jamie Kamph, a "talented and imaginative" book restoration expert from the Delaware River Valley generously donated her time to lovingly restore a number of our rare and unique titles. Among a few of the treasures that were restored was *The Practical Gardener and Gentleman's Directory for Every Month in the Year*, by James Barton, London; *Delights for Ladies, to Adorn Their Persons, Tables, Closets, and Distillatories*, by James Boler, London, 1635, and *The Family Herbal*, by John Hill, 1812.

This lovingly restored collection will soon find a new home in the front parlor of the Tubb's House. Janet and Peggy are happy to report that they have purchased a fine display case that is identical to the one at Frelinghuysen. The case will be delivered shortly and we invite you to take time to enjoy this unique treasure the next time you visit the Tubb's House at Willowwood.

Excerpts from THE GENTLEMAN'S & GARDENER'S;
KALENDAR, 1821

DECEMBER

FLOWERING SHRUBS AND EVERGREENS

Prune such as require the knife. In mild weather, dig between the roots of shrubs standing in clumps, take up suckers rising from the roots, shorten straggling roots--plant the suckers you take up, particularly lilacs, althea frutex, &c. In pruning, cut away rambling luxuriant shoots, and trim the other so as to form regular heads. Shrubs lately planted must have their roots protected from frost, by a covering of dung; and tall weak shrubs must be supported with stakes.

GREEN HOUSE

Be careful to prevent the frosts getting into your house, as that would give the leaves of many plants a yellow cast, that you could not recover them during the winter--let your watering too be very moderate, and be careful in admitting air.

JANUARY

STANDARD FRUIT TREES

Cut away branches that are dead, irregular, or superfluous; clear the trees of moss. This is a good time for pruning apple, pear, plumb, and cherry trees. Most of the apple trees in many orchards are crowded with branches, which, were they thinned to fine, open regular heads, would produce much larger fruit and bear more regularly every year. All branches that grow too close to each other, should be thinned out entirely.

GREEN HOUSE

Admit air every mild day into the green house...If your house has shutters, shut it up by sundown,...and open as soon as the sun can reach the windows--If it has a flue and no shutters, you will frequently have to make fire at nights....

Echinacea: Story of the 'Sea-Urchin' Flowers

by Juanita Choo - Curator

The Willowwood Foundation/Rutgers University

Echinacea' is derived from the Greek word echinos, which means sea urchin and the spiky flowers of Echinacea certainly divulges the origins of its name. The three species that we commonly encounter are *E. angustifolia*, *E. purpurea* and *E. pallida*. A personal garden favorite of mine, Echinacea's spunky flowers bring cheer to the garden in the Fall when vibrant summer blooms have passed. After the flowering season, dried Echinacea flowers with their unique shape and charcoal hues can add contrast and character to dried flower arrangements.

Besides floral aesthetics, Echinacea roots and stems were used for centuries by

Native Americans to treat snakebites, sore throats, rabies and a variety of ailments. The extracts of Echinacea's immune-boosting properties are used worldwide today for preventing flues and colds.

Echinacea however, is also a casualty of human over-exploitation. According to the Forest Service, over-harvesting of wild Echinacea is occurring in Kansas and Nebraska because poachers believe that wild Echinacea were more potent than their cultivated counterparts. The continuance of these activities can endanger our wild Echinacea population. This rape of natural resource is yet another sad reminder that we need to conserve and protect the envi-

ronment that supports our very existence. We can all play role in protecting nature by understanding that our existence is intricately weaved with the environment living around us.

Our house gardens are excellent miniature education centers to begin learning about the environment. Try spending this winter reading about the plants that you grew this spring and summer. Like Echinacea, there are stories and histories behind each plant and knowing them will help us understand that plants, like humans, are living things that deserve love and respect.



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A Gift for Your Garden....



Give a thoughtful gift to your garden this winter by ordering The Willowwood Foundation's permanent plant labels. These deluxe labels are made of lightweight, brown anodized aluminum and will be custom-embossed with your text. Tested in the gardens of Willowwood and the Frelinghuysen Arboretum, the brown labels will last for many years and will blend naturally into any garden or landscape setting.

- The label size is 1 1/2" x 3" and accommodates up to four lines of customized type (29 characters per line).
 - The cost is \$20.00 for a minimum order of 10 labels and includes shipping. Add \$1.75 for each additional label you require.
- Please call us for an order form or mail your own list directly to us, using the example given below or your own format. You can also Email us at wwfoundation@earthlink.net.

Please remember to print clearly and enclose your name, shipping address and a check or money order made out to the Willowwood Foundation.

Your labels will be shipped to you in 3-4 weeks.

SAMPLE FORMAT (29 characters per line):

(Line 1) Botanical Name
(Line 2) Cultivar
(Line 3) Common Name
(Line 4) Planting date

Mark Your Calendar...
Sunday, May 19, 2002

the Lilac Party
at Willowwood Arboretum
4:30 ~ 7:00