

*The*

JULY 1972

# Boxwood Bulletin

A QUARTERLY DEVOTED TO MAN'S OLDEST GARDEN ORNAMENTAL



*Jojoba, the Desert Boxwood now in the news. This hedge of seventeen-year old plants (unpruned) is at the Soil Conservation Nursery at Tucson, Arizona. Soil is a sandy loam. Article begins p. 8.*

Edited Under The Direction Of

THE AMERICAN BOXWOOD SOCIETY

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2nd V. P. ----- Mr. Alden Eaton  
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# The Boxwood Bulletin

JULY 1972

Vol. XII No. 1

EDITOR — MRS. EDGAR M. WHITING

## INDEX

Introducing, Mr. George Montgomery -----	1
THE MAIL BOX -----	1
MINUTES OF XII ANNUAL MEETING OF ABS -----	2, 3
<i>Mrs. Ruby Dove</i>	
SECRETARY - TREASURER'S REPORT -----	4
<i>Mrs. Andrew Kirby</i>	
Edgar Anderson and His Garden -----	5 - 7
<i>Mary A. Gamble</i>	
Plant A Seed And Save A Whale -----	8 - 11
<i>Howard Scott Gentry</i>	
Colonial <i>Suffruticosa</i> Hedges On Dogue's Neck -----	12, 13
<i>William A. Gray</i>	
Planting Advice -----	13
<i>Wm. Pullman</i>	
Frames To Protect Boxwood In Winter -----	14 - 16
<i>William C. Trimble</i>	
A Miscellany Of Observations On Boxwood -----	16
<i>J. T. Baldwin, Jr.</i>	

## PHOTOGRAPHS

Jojoba, Desert Boxwood Now In The News - Cover	
Mr. George Montgomery -----	1
Emblem Of Boxwood Study Group, St. Louis --	7
<i>Design by Mrs. Jack Montaldo</i>	
Fruiting Jojoba In Four Forms -----	8
<i>Drawing by Regina Hughes</i>	
Fruiting Shrubs (Jojoba) -----	10
Jojoba Capsules From Camp Creek, Arizona ---	10
Seeds Of Jojoba, Enlarged -----	11
<i>Suffruticosa</i> Hedge at "Springfield" -----	12
Current Descendant of Hedge -----	12
Massive Stems of Old Boxwood, "Springfield" --	13
<i>3 Photographs by William A. Gray</i>	
Frames To Protect Boxwood In Winter -----	14
Raising Frames Into Place -----	15
Protective Structures Completed -----	15
Sacking Protects Sides -----	16
<i>4 Photographs by William C. Trimble</i>	

## INTRODUCING MR. GEORGE MONTGOMERY

Recipient of ABS Grant for Boxwood Decline Study

Dr. R. C. Lambe writes: On June 1, Mr. George Montgomery joined the Department of Plant Pathology and Physiology (V.P.I. & S.U.) to begin work on the identification of and control of boxwood decline. Mr. Montgomery will be working with Dr. W. Wills and myself. His work will involve making field trips to examine boxwood. Preliminary plans have been made to do an intensive study on boxwood decline near Waterford, Virginia. He will also be working in a boxwood nursery located near Volens, Virginia. I am enclosing a copy of Mr. Montgomery's education and scholastic achievements.

A summary of this resume follows:

George Bryan Montgomery, born Feb. 9, 1945, in Shreveport, La. Graduated from Crowville High School, La. and from Northeast Louisiana State College, Monroe, La. in 1967, with a B.S. in Biology. From September 1967 to December 1968, Mr. Montgomery attended the Graduate School, NLSC, at Monroe.

He entered the U.S. Army in January 1969, was sent to Officers' Candidate School at Ft. Belvoir, Va. and commissioned as 2nd Lt., Military Intelligence Branch in November 1969. He attended the Intelligence School at Ft. Holabird, Md., and served at Ft. Benning and in Vietnam.

Mr. Montgomery returned in September 1971 to the Graduate School at Northeast Louisiana University, and received his Master's degree in Biology in May 1972. Thesis title: The *in vitro* antimicrobial



activity of the volatile oils of *Pycnanthemum albescens* and *P. muticum* on the growth rates of selected bacteria and fungi.

To finance his college education Mr. Montgomery worked in the summer vacations as a roustabout for Sun Oil Company, and during academic sessions as a dormitory proctor for the Dean of Men, NLSC.

He was married November 25, 1969, to Nadine F. Montgomery of Owensboro, Kentucky.

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## THE MAIL BOX

Loysville, Pennsylvania 17047  
May 23, 1972

Dear Admiral Phillips,

Just had to write and thank you for the wonderful day we had on May 10th — attending the Boxwood Society meeting at Blandy Experimental Farm, visiting Mrs. Orme Wilson's Tuleyries Garden and your lovely home and garden, Heronwood.

The trip was exciting from start to finish. On our way we stopped to see Trinity Episcopal Church in Upperville, and on our way back to Arlington we stopped and had dinner at the Red Fox Inn in Middleburg.

There were so many wonderful things to see at Heronwood, I feel as though I couldn't possibly get the whole picture in a rush visit. The topiary work was really fascinating. I spent quite a lot of time in the part of your garden where they were being started.

Most of my specimen boxwoods are at my home

at 4733 Old Dominion Drive in Arlington, Virginia. Wish you could stop and see them some time. When I became a charter member of the Boxwood Society we were living there all the time, but now we spend most of our time at our farm in Pennsylvania where the boxwood do very well.

I was so impressed with the friendliness of Boxwood Society members. At lunch and during the afternoon we became acquainted with a number of folks from various parts of the country. It is too bad we can't have some kind of area meetings during which we could visit each others' boxwood gardens and compare cultural methods of keeping them healthy.\*

Thank you for your most generous hospitality.

Sincerely,

Frances Colbert (Mrs. E. E.)

\*(Note: There is nothing to prevent ABS members from organizing such area meetings. We have written about that in the Bulletin. N. P.)

# Minutes of the Twelfth Annual Meeting of the American Boxwood Society

The Twelfth Annual Meeting of the American Boxwood Society was held on Wednesday, May 10, 1972 at Blandy Experimental Farm, Boyce, Virginia. Rear Admiral Neill Phillips, President, convened the meeting at 10:30 A.M. and welcomed the members and guests who numbered well over one hundred.

The minutes of the Eleventh Annual Meeting held at the United States National Arboretum on May 12, 1971 were approved as published in the July 1971 issue of THE BOXWOOD BULLETIN.

The report of the Secretary-Treasurer, Mrs. Andrew C. Kirby, for the year ending April 30, 1972 was presented and approved. The complete report is printed in this issue of the BULLETIN.

Mrs. Edgar Whiting, editor, reported that she feels the BULLETIN is better than it used to be in the earlier years of her editorship. She is trying to maintain a balance between original articles and equally valuable reprints of material first published elsewhere; and at the same time to achieve, whenever possible, a balance between experienced advice on boxwood culture and picture articles on beautiful and unusual boxwood gardens and single specimens, old and new. A vote of thanks was extended to Mrs. Whiting for her great and dedicated work on the BULLETIN.

The President reminded the Secretary-Treasurer and the Editor of their authorization to accept a \$250 annual honorarium voted to them for their out-of-pocket expenses in carrying on the work of the Society.

Admiral Phillips, in making his annual report, stated that the Society has had one of its most fruitful years, having expanded its activities a great deal. One of the main achievements has been establishment of a Nutritional Studies Project in Boxwood at the University of Maryland. The American Boxwood Society is the International Registration Authority for Boxwood. The Bulletin is continuing to grow in value and prestige. Plans are being made for the publication of a brochure containing articles selected from past issues of the BULLETIN relating to boxwood care and cultivation.

The President expressed his delight at being back at Blandy for this Annual Meeting and thanked Mr. Runk and Mr. Caspar for making the necessary preparation for it. Dr. Baldwin, Dr. Skinner

and Professor Beecher, due to pressing business, were unable to attend the meeting today. Their presence was greatly missed as they have been faithful workers and attendants at the Annual Meetings. Admiral Phillips announced that the 1973 Annual Meeting probably will be held in Charlottesville at the University of Virginia.

The latest recommendation on boxwood leaf miner by the Virginia Extension Service is: Spray May 7 to 15 with ISOTOX — Insect Spray mixture of SERIN, KELTHANE AND METASATOX. Spray again the 15th to 30th of June with CYGON 2-E. The Virginia Nurserymen's Association has published a valuable April Newsletter (their educational advisor is Professor Beecher) on this subject and it will be included in the July issue of the Bulletin. Copies are available through Dr. Beecher at V.P.I. These items ended the President's report.

Mrs. Orme Wilson extended a gracious invitation to members and guests to visit The Tuleyries and the boxwood gardens during the lunch recess or after the meeting. She also told us briefly the history of "Tuleyries." Admiral Phillips invited members and guests to visit Heronwood after the adjournment of the meeting for refreshments and to see the gardens.

The election of officers for 1972-1973 and one director was the next order of business. The Nominating Committee consisted of Mr. Woodson P. Houghton, Chairman, Mrs. Edgar M. Whiting, and Mr. Alden Eaton. The Chairman presented the following slate of Officers:

Rear Admiral Neill Phillips, President  
Dr. J. T. Baldwin, Jr., 1st Vice President  
Mr. Alden Eaton 2nd Vice President  
Mrs. Andrew C. Kirby, Secretary-Treasurer

By unanimous vote, the above-named officers were elected for the year 1972-73.

The Committee presented the name of Dr. W. Ralph Singleton for the vacancy on the Board of Directors to serve for three years. He was elected unanimously.

Admiral Phillips introduced Mr. B.F.D. Runk, Professor of Biology at the University of Virginia. Professor Runk spoke of the new activities at Blandy Experimental Farm and explained that a year ago he was asked by the Board of Visitors of University of Virginia to take over the supervision of the Blan-

dy Farm, and for the past year he has been closely associated with Blandly. He stated he is delighted to have this responsibility and considers it a privilege to be able to come here frequently. He thanked Mrs. Kirby and Mr. Casper for their work in preparing for this meeting.

Professor Runk introduced Mr. Tom Ewert who will become Director of Blandly Farm September 1, 1972.

Mrs. Whiting introduced Mrs. Mary A. Gamble of St. Louis, Missouri, who spoke on "Edgar Anderson and His Boxwood Garden" at the Missouri Botanical Garden, St. Louis. This was an excellent presentation and a pure delight for the audience. Dr. Singleton made a motion (passed unanimously) commending Mrs. Gamble for her superb talk and for the marvelous job she is doing with the Anderson Garden. Her speech will be printed in the Bulletin. Mrs. Gamble brought with her 51 'Ste. Genevieve' cuttings for distribution to members; also an 'Agram' boxwood plant for Blandly Farm and will send one to Admiral Phillips for Heronwood. This generous act was deeply appreciated by all.

The proposal to the American Boxwood Society for a research project on boxwood diseases (as printed in the April 1972 Bulletin) was presented by Dr. R. C. Lambe, Extension Specialist in Plant Pathology at V.P.I. He was assisted by W. H. Wills, Professor of Plant Pathology, V.P.I. Dr. Lambe stated that VPI has a graduate student available to undertake this assignment, if approved, and who will be at VPI shortly. Dr. Wills pointed out that without the support of ABS, VPI cannot pursue this work since it is not part of a regular program set up there and that the money (\$5,000) for the first year will be needed as soon as possible after July 1, 1972. After a discussion on the means of financing this worthwhile project, it was suggested that members consider making anonymous notations on slips of paper as to approximate amounts they would be willing to donate for the project in 1972 and 1973.

The meeting recessed for lunch at 12:30 P.M. A picnic lunch was enjoyed with coffee and doughnuts kindly provided by Blandly Farm.

The meeting reconvened at 1:30 P.M. with a continuation of the presentation by Dr. Lambe. He showed colored slides of fungus and bacteria infections of boxwood describing in detail the various phases.

A motion was made by Mr. Houghton that the American Boxwood Society accept the proposal of VPI as set forth on Page 57 of the Bulletin dated April 1972. This motion was seconded by Mrs. Gilpin.

A discussion followed: It was suggested by Mr. Plater that when the membership bills are mailed out, they include a statement that voluntary contributions for this project would be appreciated.

Mr. Alley, Landscape Consultant, from Short Hills, N.J. suggested the possibility of ABS maintaining a listing of valuable or unusual boxwood

throughout the country; owners to pay ABS a fee for such listing.

Mr. Houghton's motion was amended to authorize the Executive Committee of ABS to use its judgement in committing the Society beyond the second year. This amendment was accepted by Mr. Houghton.

The motion, as finally amended and worded, was as follows:

The American Boxwood Society accepts the proposal of V.P.I. as set forth on Page 57 of the Boxwood Bulletin dated April 1972; except that it authorizes the Executive Committee of ABS to use its judgment in committing the Society beyond the first year.

This motion was unanimously passed by the membership.

It was agreed that Dr. Lambe and Dr. Wills would ask VPI officials if they would be willing to accept the money for the 1st year to get the project started and for the second year make arrangements with the Executive Committee of ABS depending on funds available.

Dr. Wayne Hefley, graduate student at the University of Maryland, was introduced by the President. Dr. Hefley is carrying out the Program on Boxwood Nutrition which was started April 1, 1971 and sponsored jointly by the University of Maryland Agricultural Experiment Station, Department of Horticulture and The American Boxwood Society. Dr. Hefley presented slides and described his work in detail and came up with some interesting results. A transcript of his work and findings will be published in the Bulletin.

Mr. Alden Eaton presented Mr. Richard Mahone, Director of Landscape Construction and Maintenance at Colonial Williamsburg. Mr. Mahone spoke on "Winter Damage to Plants other than Boxwood." Williamsburg suffered severe loss of many species due to the drastic change in temperature, accompanied by bright sun and wind during the period from January 14 — January 24, 1972. In the absence of Dr. Baldwin, Mr. Mahone read an article on "Boxwood and Leaf Miner," prepared by Dr. Baldwin which will be printed in the Bulletin.

Mr. Robert McCartney, Biologist from Colonial Williamsburg, introduced by Mr. Eaton, gave an interesting and informative speech on three plants — a tree (Magnolia-Virginiana), a shrub (Stagger Bush — Heath Family) and a vine (Wisteria). He ended his presentation with an invitation to visit Colonial Williamsburg and stated the Landscape Department is ready at all time to guide and show visitors around.

The meeting adjourned at 3:30 P.M. The President thanked the audience for their attention and cooperation.

Respectfully submitted,  
Ruby P. Dove, Recorder

THE AMERICAN BOXWOOD SOCIETY

Twelfth Annual Meeting, May 10, 1972

The Blandy Experimental Farm, Boyce, Virginia

*Treasurer's Report*

for the fiscal year beginning May 1, 1971, and ending April 30, 1972:

Balance in Checking Account  
May 1, 1971 ----- \$2,509.84

*Receipts*

Memberships and Subscriptions	3,203.00	
Extra Bulletins & Lists	115.33	
Interest on CD 1025	100.00	
Gift	7.00	
Total gross receipts -----	3,425.33	
		5,935.17

*Disbursements*

Cost of The Boxwood Bulletin		
The Boxwood Bulletin		
Printing 4 nos.	1,120.00	
Copyrights (4)	24.00	
Mailing: plates, envelopes, postage, etc.	98.18	
Photos, cuts, & miscel.	351.75	\$1,593.93
Secretarial Services	88.34	
Printing. Annual meeting notices, remittance envelopes & outlook envelopes	39.25	
Office Expense: Stamps, postage, 1 copy Directory of American Horticulture	104.01	
Refund	1.50	
Registration Expenses to B. L. Wagenknecht	200.00	
Contribution to University of Maryland:		
1972 (3/7)	1,500	
1971 (5/13)	700	2,200.00
Total disbursements -----	4,227.03	
		1,708.14
Balance in the checking account ----	1,708.14	
Savings Account CD #1025 -----	2,000.00	
Savings Account, plus interest to April 1, 1972 -----	948.55	
		\$4,656.69

(All accounts are in the Bank of Clarke County, Berryville, Virginia)

Anna C. Kirby

Secretary's Report for the Society year 1971-72:

During the year 79 new members were enrolled. There was, however, a slight decrease in membership due to non-payment (70) and resignations (6). I received notice of the deaths of six members. The membership now stands at

- 4 Honorary Life Members
- 17 Life Members
- 8 Sustaining Members
- 58 Contributing Members
- 438 Regular Members
- 30 Subscribers (non-members)

making a total of 555, and reflects an increase of four Life Members this year. They are

- Mr. James J. O. Anderson, Baltimore, Maryland
- Mrs. Horace Havemeyer Jr., Chestertown, Maryland
- Mrs. John Q. LeGrand, Greenwood, Virginia
- Mrs. James L. Wiley, The Plains, Virginia

Complimentary copies of The Boxwood Bulletin were sent each quarter to selected institutions, garden editors, research centers, and individuals: 10 in the United States and Canada and 15 to foreign countries.

Of the 750 copies of each number of the Bulletin printed, approximately six hundred copies are presently being distributed. This number includes the Editor's copies to contributors.

In the course of the year routine items taken care of from the headquarters office included (1) applications for Registration of a Claim to Copyright for four issues of the Boxwood Bulletin were submitted, and certificates received; (2) a Statement of Ownership, Management and Circulation was filed with the U. S. Postal Service at Boyce, Va. (the postmaster has advised me, however, that the Society will not be required to file this form in the future); (3) the Annual Report to the State Corporation Commission of Virginia in the name of the American Boxwood Society was submitted February 16, 1972; (4) Form 990 (Return of Organization Exempt from Income Tax) for 1970 was filed with the Internal Revenue Service on September 14, 1971; and (5) countless brochures were mailed to persons seeking information about the Society, as well as to individuals whose names were submitted by members.

Three hundred copies of extra Bulletins were sent out in 102 separate mailings. These consisted of back numbers sold, the Editor's copies to contributors, copies to new members, etc.

Five hundred thirty-four renewal notices were mailed in mid-April, together with an announcement of the 1972 annual meeting.

All back numbers of the BOXWOOD BULLETIN are still available.

Respectfully submitted,  
Mrs. Andrew C. Kirby  
Secretary-Treasurer

# Edgar Anderson and His Garden

Mary A. Gamble

First, may I say how honored the members of the Boxwood Study Group of the St. Louis Herb Society are, to have a part in today's meeting. As their representative I am privileged to have this exposure to what we consider the source, the well-spring of boxwood knowledge. I am delighted to have the opportunity to meet you, to learn from you, and to tell you briefly about the EDGAR ANDERSON MEMORIAL GARDEN now coming into being at the Missouri Botanical Garden in St. Louis, Missouri.

Dr. Anderson's garden is growing, that I can tell you. I can also ring the hoped-for completion date of basic planting: spring 1975, just three springs from now. I cannot say "finished," for Dr. Anderson's Garden will not be finished then, nor will it be in five or ten or more years. But it will be growing through all these years, and increasing in beauty and worth from year to year. Visitors to its site in the Missouri Botanical — or Shaw's Garden as St. Louisians call it — will enjoy the rare privilege of observing and studying a boxwood garden as it matures to its full beauty and charm.

In preface let me tell you just enough about the Missouri Botanical — or Shaw's — Garden to make those of you who have not yet visited it feel at home. It comes as a surprise to many to learn that Shaw's Garden is the oldest existing botanic garden in North America organized as an independent institution.

It was created and developed by Henry Shaw, an Englishman who came to Missouri when it was still a territory. By age 40, Henry Shaw had made his fortune shipping sugar upriver from New Orleans rather than overland; he then retired and devoted himself to his avocation, the study of plants. Mr. Shaw purchased a large tract of prairie land southwest of the city and began his garden. One of his chief advisers was his friend, Sir Joseph Hooker, who succeeded his father, Sir William, as Director of the Royal Botanic Garden at Kew. Another was Dr. George Engelmann, surgeon and self-taught botanist for whom the Engelmann spruce, the great blue conifer of the Rockies, is named. Mr. Shaw established an integrated library, herbarium and garden.

In 1849 he built on his garden grounds a handsome Italianate country home, calling it Tower Grove. Ten years later he opened his garden to the public, naming it the Missouri Botanical Garden. For thirty years he served as the Garden's director and manager. He kept the books, working at a desk in a small back room of Tower Grove House. Today the windows of this room overlook the herb garden which was given and maintained by the St. Louis Herb Society. This view now extends to the magni-

ficent new John S. Lehman Library-Herbarium which is being dedicated this week. Its amber-mirrored walls picture twin images of the classically serene 19th-century Tower Grove House. A stroller along the garden path which separates the two cannot help but reflect upon the grace with which Shaw's Garden unites the old and the new.

Lovely to look at, Shaw's Garden is primarily an educational and research institution. Its director and members of its scientific staff teach in the Henry Shaw School of Botany in Washington University in St. Louis. Each year some twenty-five students do graduate work on PhD. and postgraduate levels. It is noted for basic research in the fields of botany, horticulture, ecology and allied fields. Its library has a distinguished collection of rare botanical books and herbals. Appropriately, the Herbarium has America's finest collection of Midwestern plant specimens; it also has the finest collection of African flora outside that continent. It mans a station in Panama for a continuing study of the flora of the Isthmus. Its horticultural collections are continually updated in both the ornamental and the useful fields. Its rapport with local nurserymen and growers is strong and fruitful. It conducts plant and environmental educational programs for the men, women and children of the St. Louis area. It implements a government-sponsored work-learning program for high school drop-outs. It is a terrific tourist attraction. It remains a private institution, operated for the benefit of all.

Edgar Anderson was a member of the Missouri Botanical Garden staff for 46 years and served as its director. Dr. Anderson was first a botanist; "all I ever wanted to be known as was a botanist," he once said to me. He was also a scientist of world stature; an educator who attracted students of the highest quality; an appreciator of beauty; a man of intellect, charm, wit and genius.

Those of you who knew him as an enthusiast of boxwood may not know that he was also a devotee of herbs. He founded the Herb Society of America and was co-founder of the St. Louis Herb Society. His genius produced some of the great landmarks of botany and he revolutionized its practice in the field. Notable was his pioneer work in hybrid corn. In economic importance you cannot compare corn and boxwood. But man cannot live by bread alone; there remains a place in life for beauty.

In his book *PLANTS, MAN AND LIFE* he wrote: "The greatest creative thrill I have ever had was when in Colorado, working with a flora completely new to me, I studied a mongrel population of loco weeds. After some days of intensive work I was able to build up an effective picture in my mind of the variation in this group of plants, and then the

next day I went out and found exactly such a species as the one I had imagined. Of course the foreign species had been there all the time, but I had never seen it. Working out what it must be like item by item and then finding it was almost as if one had created a species by the strength of his imagination and then had seen it materialize before his eyes."

We think an analogy can be drawn between this creative experience and Dr. Anderson's search for Midwest-hardy *Buxus*. Several years ago, on a bright summer day, I sat beside him on a bench near Tower Grove House and heard from him the story of his Balkan boxwood adventure. He told me about studying the weather maps to find an area where our "chancy" — to use his word — climate was duplicated; where the terrain was comparable to that of our Ozarks and where great winds blow. In St. Louis they blow from the west, direct from the Great Plains; in the spot he chose in the Balkans, they blow from the east, across the Russian steppes. In 1934 Dr. Anderson went to southern Yugoslavia for the Arnold Arboretum and came back with the first of the seeds and cuttings from which came his Balkan boxwoods. These will have a place of honor in the Anderson Boxwood Garden.

A second principle to be expressed in his garden is what we call his "survival principle;" he called it "the plant that made it." This story illustrates the point. As the testing of the Balkan seedlings progressed in the Missouri Botanical Garden's Arboretum at Gray Summit, Missouri, there happened an unusually severe winter — not really too unusual in the Midwest. Dr. Anderson received word that many of his boxwoods had died. "Fine!", he exclaimed: "now we'll see which ones are *really* hardy." We intend to look for such hardy plants and to propagate from them, hoping to further tough, resilient strains. This will take time, but any one unwilling to invest time should interest himself in annuals, not *Buxus*.

Dr. Anderson was a great teacher. Students vied for his classes for no other purpose than to learn from him how to observe, to look. "Look around you," he told us, on those happy occasions when, like the Pied Piper, he led us on a walk. We looked around us and chose the Midwest-proven 'Ste. Genevieve' to register. We will look further in coming years.

Dr. Anderson had the ability to inspire. He was incredibly generous with his knowledge, but he never gave the answers. He simply pointed the questioner in the right direction and the distance traveled was entirely up to him. When we asked his help in starting a study of boxwood he pointed us in the direction of Dr. J. T. Baldwin, Jr., and of the American Boxwood Society and its Bulletin; of Dr. Donald Wyman of the Arnold Arboretum and Lewis Lipp of Holden. These first contacts led to others; to Dr. Skinner at the National Arboretum, to Mr. Henry Hohman of the Kingsville Nursery, to many others. Mr. Clarence Barbre and the Missouri Botanical Garden staff, and other area men who had worked with Dr. Anderson on boxwood have rallied to our cause with knowledge, experience and plant materials. Today our accession book lists twenty-

seven individuals and institutions who have contributed cuttings and plants to the Edgar Anderson Boxwood Garden. We have learned what Dr. Anderson meant by "boxwood people." They are generous, dedicated, gentle; knowledgeable and infinitely patient; loyal to "man's oldest ornamental."

The Edgar Anderson Boxwood Garden will be beautiful; how could a garden of *Buxus* be otherwise? But its beauty will be more than skin deep. Like its host, the Missouri Botanical Garden, it will rest on a solid foundation of education. I have with me the Garden plan as developed by Robert A. Dingwall, chief horticulturist at the Garden. He has planned it to show boxwood in its many forms and in its adaptability to changing life styles without any sacrifice of its intrinsic beauty and innate dignity. Its plantings will be designed to interest layman and botanist, student and teacher. Its signs will be informative. It should provide an experience both esthetic and educational.

Its site is a terraced, tree-bordered area slightly distant from the main traffic axis of the Garden. Mrs. Mary Baer, co-founder with Dr. Anderson of the St. Louis Herb Society, once said that Shaw's Garden was her Walden. It is the hope of the Boxwood Study Group that the the Anderson Garden's location will retain the Walden atmosphere so appropriate to its function.

The garden is in the form of a truncated V, some 200 feet in length, north to south; it narrows from a maximum 148 to a minimum 36 feet as it forms the V. It has good protection on south, east and north; it is dangerously exposed on the west, but hedges of yew and our very hardiest Balkan box will correct this in time. Its natural approach is from a romantic gazebo near Tower Grove House, northwest through a handsome and extensive rose garden, and by easy, spaced terraces through the boxwood plantings to the focal point, a fountain flanked by matched formal beds in *buxus* with accent plants of its traditional companion, yew. The six pairs of tapered, box-bordered beds will bloom with annuals and perennials, including a number of historically appropriate herbs.

As backup to the Garden we have a nursery with comparable soil and exposure. Here we will test *buxus* varieties new to the Midwest for a minimum of three winters. We do not "baby" the plants in the nursery; we feel they should receive typical garden care, no more, no less.

In our nursery we will maintain replacement stock for inevitable losses. The Garden also plans to grow select and limited groups of *buxus* to sell to visitors, partly as a service, partly as a contribution to the financing of maintenance and continued development of the Anderson Garden. One day we will find a plant worthy to be named the Edgar Anderson; but it must be "first rate," to borrow his words of highest praise.

We believe the Edgar Anderson Boxwood Garden was meant to succeed, for almost it died a-borning. One Saturday in January of 1969 Edgar and

Dorothy Anderson said they would direct an expedition to Gray Summit to see 'Agram,' the boxwood he considered his "star." It would be the first sighting for Jane, Mrs. George Penhale; Mary, Mrs. Malcolm Holekamp, and me: the three original study group members. When Saturday came it dawned not fair, but grey with a raging snowstorm. Could we make the winding 35-mile drive to the Arboretum? Dorothy and Edgar Anderson could, and we did, having to be towed out of a snowbank only once. Dr. Anderson led us along the edge of a woods to the spot where 'Agram' grew, looking through the swirling snow like an ethereal Christmas tree. I will always remember Edgar Anderson's expression as he stood before his tree, looking to its tip. "Note," he said, "how its every line is upward." If it had not been for Edgar Anderson's unquenchably adventuresome spirit we would have postponed that trip; probably never discovered 'Agram' which, in a way, has become our mascot. For just five months later Edgar Anderson died.

First plans were to move 'Agram' to the new garden; but it will remain where it is. Not many people see it, but those who do can appreciate it in the quiet and solitude of its woodland setting. There will be an 'Agram' in the secret garden you see marked on the plan. It is growing now in the nursery. It is almost a twin to the 'Agram' we brought with us as the gift of our Garden to Blandy Farm. It was propagated from a cutting made in July 1969; already it has that "upward" look.

In 1969 Dr. Baldwin wrote: "I am delighted that you and your associates are investing yourselves in box; most likely you will change the horticultural pattern for this genus in your whole area." Whether we can accomplish that, it is too early to say. We already have our failures; it is too soon to call our apparent successes established. This winter was a hard one for boxwood in Missouri. It was warm well into winter so that growth continued. It was dry. Then it was cold for an extended period. All of our testing members report greater losses than last year. But we know there is a good and interesting range of *buxus* that can be grown in St. Louis. We can prove it only by doing it; by showing. Missouri is not called the "show-me" state for nothing. Local gardeners and nurserymen and landscape designers will believe when they see; they have been burned in the past and like children, fear the fire. Our great danger is getting carried away by our enthusiasm. We must move slowly and with care. Our aim is to produce a garden "First rate" in every respect.

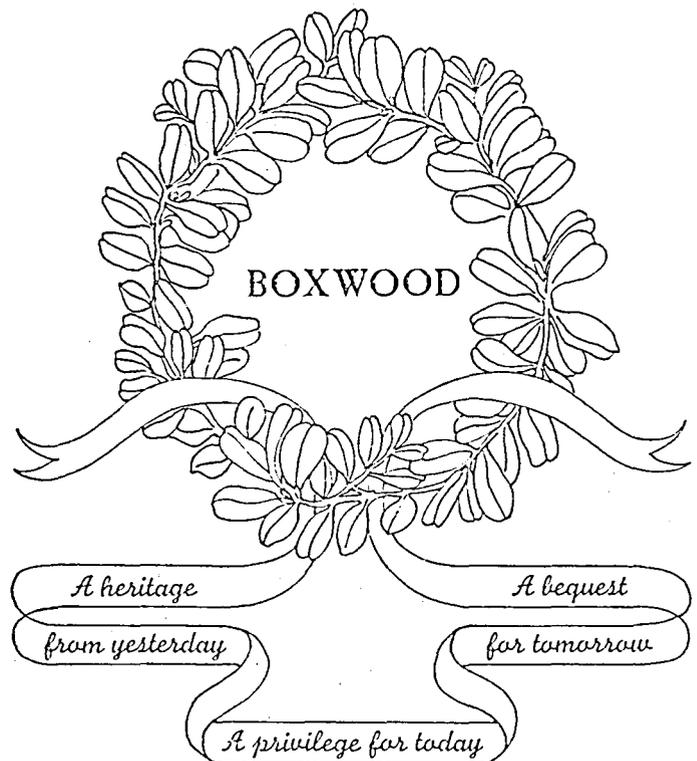
The planning and growing and planting of the Edgar Anderson Boxwood Garden is a labor of respect, admiration and love; for the man the garden

honors, and for the plant he admired so greatly. Our study group has an emblem, conceived by a member, Jeanne, Mrs. Jack Montaldo. It unites a symbolic circle of *Buxus sempervirens suffruticosa* leaves with Mrs. J. B. McCarty's beautiful tribute to boxwood, which she permits us to quote:

— a heritage from yesterday  
 — a privilege for today  
 — a bequest for tomorrow"

Today the Edgar Anderson Boxwood Garden is in its beginning. Tomorrow — and tomorrow — it will take on shape and form. Our hope is that it will be ready to welcome perceptive visitors by the Spring of 1975. And it is our privilege to extend to the American Boxwood Society the invitation of Dr. Peter H. Raven, Director of the Missouri Botanical Garden, to hold its Annual Meeting in St. Louis that year, and to celebrate with us the realization of our conviction that to build a boxwood garden from its beginnings is to perform an act of faith in the future . . . . to give hostages to fortune . . . . to create a legacy for the 21st century.

We hope you will come to St. Louis in the Midwest in 1975 and be the Edgar Anderson Boxwood Garden's first official visitors.



The Boxwood Study Group  
 of the  
 St. Louis Herb Society

# PLANT A SEED AND SAVE A WHALE

Howard Scott Gentry

The desert boxwood, *Simmondsia chinensis* of the family *Buxaceae*, has recently been regaining attention. Its jolly Papago name "jojoba" is being tumbled about in the official halls of Washington and re-echoed in jojoba land itself. In the Southwest jojoba has long been recognized as a useful browse plant for cattle and deer, as a xerophytic ornamental, and especially as a source of oil.

The seeds contain almost 50% oil. If the seeds could be harvested economically, the oil could serve as a substitute in industry for imported sperm whale oil and the waxes of carnauba and candelillo as well. The following account will briefly outline current interest in jojoba and leave the interested reader to find more background in the bibliography appended, partly keyed in the text here by parenthetical numbers.

The fortune of jojoba may have been forecast when the National Congress passed the Endangered Species Conservation Act of 1969 and former Secretary of the Interior Walter J. Hickel subsequently put the sperm oil whales on the protected list and banned imports of sperm whale oil as of December 2, 1971. Industry must, therefore, find substitutes for the 55 million pounds of sperm oil annually used in the United States. Sperm oil is now classified as a "strategic commodity and is stock-piled against national emergencies (12).

During the past two decades the New Crops Research Branch of the U.S. Department of Agriculture has found three plant groups containing seed oils which may be suitable substitutes for the various uses of sperm oil: 1 — Jojoba; 2 — the meadow foams represented by *Lymnanthes* spp. from the Pacific Coast, and 3 — *Crambe abyssinica* from the Mediterranean Region (11). However, the seed oils of meadow foam and *Crambe* must be converted chemically to waxes and their application to special uses has not been tested. Of the three, jojoba oil is chemically closest to sperm oil in composition and has been tested in laboratories. Because *Limnanthes* and *Crambe* are annuals and may be more quickly selected for agricultural development, the USDA has limited its investigations and research to them. They yield annually, while jojoba does not yield appreciably before the sixth or seventh year. Jojoba must be regarded as a tree crop with capitalization maturing over a long period.

The Israelis have been more active in crop research with jojoba. They have several thousands of plants growing in experimental plots in the Negev Desert. They report (letter from the Negev Institute) that growth has been good with the best specimens yielding two or more kilograms of seed in the fourth year.

Noel Vietmeyer of the National Academy of Sciences recently became interested in jojoba under the stimulation of N. T. Mirov, a jojoba enthusiast of long standing (4). Vietmeyer in turn interested William Miller of the Office of Economic Opportunity, which now entertains jojoba as a possible economic resource for our southwestern Reservations where jojoba is indigenous. Vietmeyer cogently summarizes the current interest in jojoba (12). "The development of a *Simmondsia* seed industry therefore has the potential of meeting the needs of industry, of whale conservation, and of Indian welfare."



Fruiting Jojoba in four forms: A, typical; B, nodal; C, fascicled; D, racemose. Drawing by Regina Hughes.

Jojoba oil is chemically a liquid wax and so far as known is unique in the plant kingdom. Fats in the seeds of most plants have one molecule of glycerine attached to three molecules of fatty acids, but waxes have one molecule of a long-chain alcohol attached to one molecule of a fatty acid. With this molecular structure jojoba oil is very similar to sperm whale oil, and has been regarded as a potential substitute for the latter (8). Both are non-toxic and both have two long-chain alcohols with 20 and 22 atoms. The most important uses of sperm oil are as a lubricant in automobiles, in machine tools, in rifling guns, and in operating machinery at high speeds and high temperatures. It is also valuable in the manufacture of detergents or wetting agents, in dressing leather goods, and others (5,6). Jojoba oil is very stable, does not break down under high temperatures, and does not become rancid, as do many other vegetable oils. It may find use in cosmetics and in food preparations. It is only slightly absorbed by the human digestive system and should be suitable as an oil base for non-fattening diet foods.

By the simple process of hydrogenation jojoba oil becomes a crystalline white wax and could substitute for many of the uses supplied by the imported waxes of the Brazilian carnauba and the Mexican candelilla. Candles made of jojoba wax do not wilt and bend in the hot Arizona climate, as was well demonstrated by Fred Gibson of the Boyce Thompson Southwestern Arboretum in the 1930s. The Sonorans have employed the ground roasted seeds as a substitute for coffee in times of coffee scarcity. It is reported to be used a hair oil by our Indian and some of my Sonoran friends expressed the belief that hair regularly treated with jojoba oil will not become gray, and they cited elderly Indians with black hair as examples of jojoba hair oil efficacy. It is currently being marketed for hair oil by a pharmaceutical firm in Guadalajara and may be purchased in small modern vials in the Mexican "boticas." It would be an interesting research to find what other uses jojoba may have had and still has among the Indian tribes that have living contact with wild jojoba. The genesis of similar oils in two distinctly separate lines of life is a matter for wonderment. Only the unpredictable activities of maverick man, who randomly crosses ecologic boundaries, unlinking and uplinking biotic systems, could discover a similarity between whales of the sea and the desert boxwood. This may be taken as another, and striking, example that shows our earth as a complex yet single ecosystem, where events in one part may cause biological changes elsewhere.

J. Eliot Coit, who selected the first horticultural variety, "vista," found jojoba responsive to cultural care, with or without irrigation at Vista, California (9). Some of jojoba's natural characteristics recommend it as a new crop prospect: 1. — It will grow on a wide range of soils provided they are well-drained. 2 — Its tolerance to drought makes it efficient with precious water. Two early plantings we reported to have suffered heavily from over-watering, viz; the large planting started near Coolidge, Arizona in the 1930s (personal communication from Fred Gibson) and the Eddy planting near Riverside, California (7). 3 — Although jojoba is but a single

integrated species, it shows a wide degree of variation in habit and especially fruit development. Such variations represent a genetic resource. The finding of superior individual shrubs among wild populations could accelerate the work of selection and breeding. Plants that are heavy seeders, or with very large seeds, or have racemose clusters for fruits, can be multiplied quickly from cuttings and from seeds. So, whether you go hunting deer, wildlife photos, or jojoba itself, look for unusual jojoba fruiting plants. The Desert Botanical Garden will give a reward of \$50 to the first person to show us a jojoba bush with capsules two inches long.

However, jojoba is an independent wild plant that is not always responsive to the designs of man. Many problems must be solved before jojoba can be tailored to satisfy the economics of modern agricultural production. The embryonic program to develop jojoba on Intian lands is a fine conception, but it will need the sustained cooperation of institutions and special talents here in our Southwest. May the whales, the Indians, and the rest of mankind profit with the endeavor!

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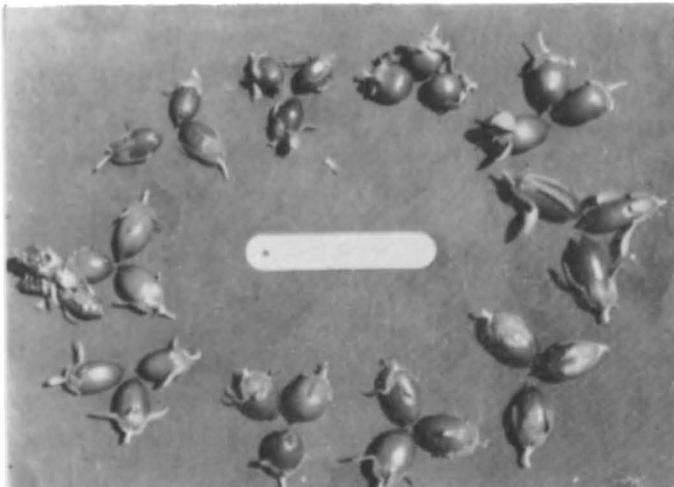


*Fruiting shrub with capsules about full size, but green and with immature seed.*

Dr. Gentry writes that an International Conference on Jojoba was held at the University of Arizona June 1-3. "It was a most interesting meeting and bodes well for the future of Jojoba as a new cultivate." It is planned that the contributions to this discussion will be published, and members of ABS may expect a supplementary report at that time.

*The Boxwood Society introduced Jojoba to its members in October 1965 (Vol. 5, No. 2) in an article by Dr. Gentry, headed: "A Desert Boxwood Still in the Desert." It was one of five valuable articles on "The Relatives of BUXUS" in a special number of the Bulletin assembled and edited by Dr. J. T. Baldwin, Jr. Copies are still available.*

*Jojoba capsules collected at Camp Creek, Arizona, from 10 shrubs. Seeds from plants in this area relatively large.*



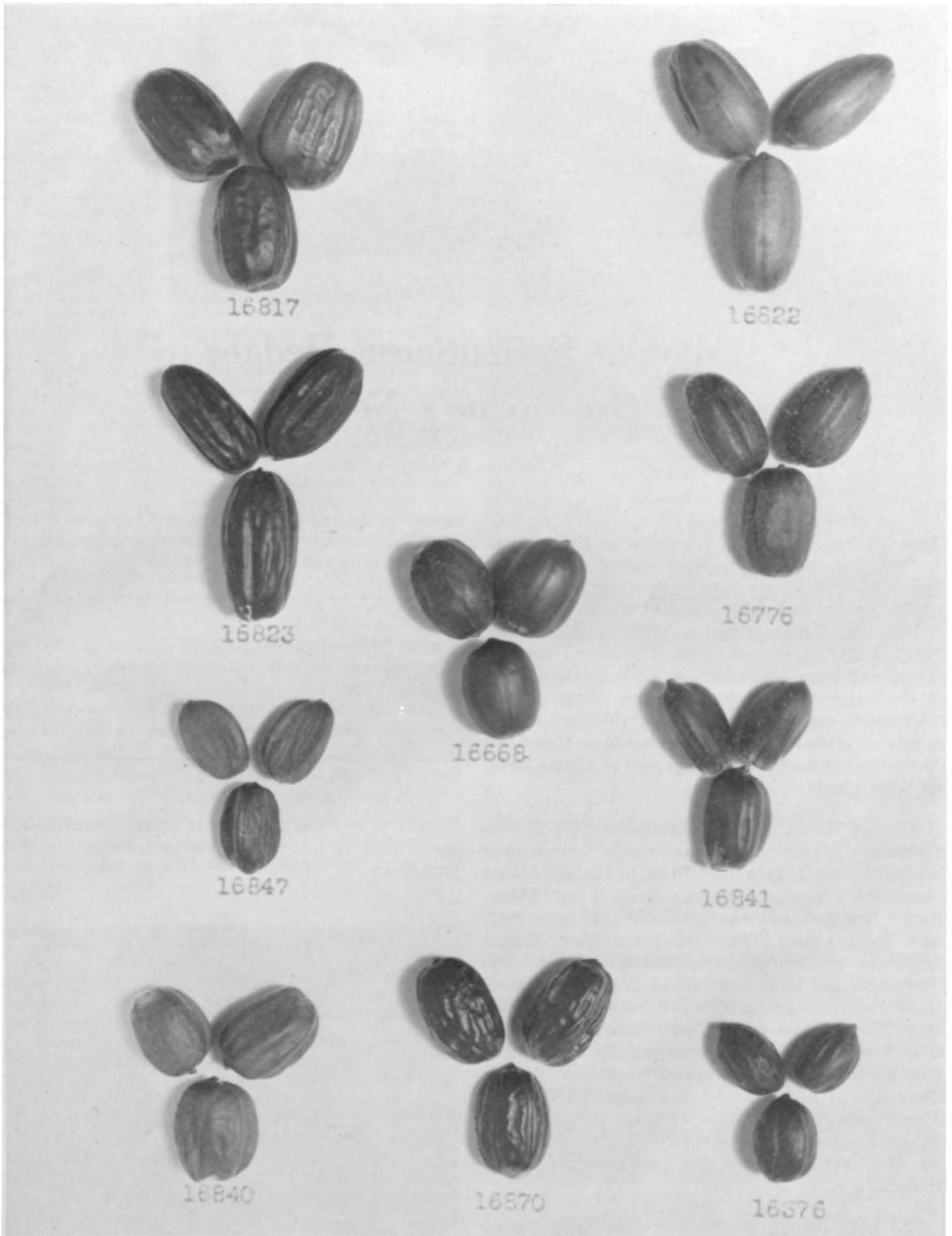
*SMITHSONIAN*, a publication of the Smithsonian Institute in Washington, D. C., headlined its article on Jojoba, "It's a sperm whale, it's super-bean!" Noting, as Dr. Gentry does, that sperm whales are now on the list of endangered species and may not be hunted by American whalers, the article reviews the uses of sperm oil. It is "of critical importance in operating machinery at high speed and temperature. It is essential in automobile transmission lubricants, in breaking in engines, making machine tools and rifling guns. What then (under the ban) will become of industries relying on it?" The answer may be a natural substitute, jojoba oil. This Cinderella in the family of *Buxaceae* may yet prove to be of vital economic importance to the country and the world.

## The American Boxwood Society

### NEW MEMBERS

*Added since April 1972*

- Adkinson, Joseph E., 3807 Leland Street,  
Chevy Chase, Md.
- Dennis, Mrs. Alfred P., Sage Hill, Leesburg, Va.
- Dennis, Frank Landt, "Pleasurely," Marshall, Va.
- Dinnen, Joseph R., 47 Kings Highway,  
Middletown, N. J.
- Fairlamb, Mrs. L. Parker, One Severn Avenue,  
Annapolis, Md.
- Foster, Mrs. T. Turner, Box 43, The Plains, Va.
- Gaillard, Mrs. David D. II, 4010 51st St., N.W.  
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- Griffin, Dr. C. W., Box 52, Wakefield, Va.
- Hare, Mrs. H. Gerald, West Falmouth, Ma.
- Herlihy, John J., 500 Medical Arts Bldg.,  
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- Jenkins, Charles R., Skyline Development Corp.,  
Box 572, Ocean City, Md.
- Kellogg, Mrs. Spencer, II, Valentines Lane,  
Glen Head, L.I., N.Y.
- Mathews, Mr. J. T., 314 St. Davids Lane,  
Richmond, Va.
- McWhorter, Mrs. W. D., 209 Fairmont Avenue,  
Winchester, Va.
- Montgomery, Mr. George B., Dept. of Plant Pathology,  
VPI & SU, Blacksburg, Va.
- Orme, Mrs. E. J. Jr., Rt. 1, Box 234, Leesburg, Va.
- Rice, Mr. George B., 914 Colonial Drive,  
Burlington, N.C.
- Snowden, Mrs. Robert, Hughes, Ar.
- Steward, Larry, Dept. Bldg. & Grounds, University  
of Virginia, Charlottesville, Va.
- Weidhaas, John A., Jr., Dept. of Entomology,  
V.P.I. & S.U., Blacksburg, Va.
- Verity, Mrs. William, 600 Thorn Hill Lane,  
Middletown, Ohio



*Seeds of Jojoba, pictured about 1 1/4 natural size. Each triad represents an individual shrub.*

*All photographs from Dr. Gentry.*



## Colonial Suffruticosa Hedges On Dogue's Neck

William A. Gray

Two outstanding examples of dwarf English Boxwood hedges, dating from the mid-eighteenth century, are still thriving in southeastern Fairfax County, Virginia. The great hedge at Gunston Hall justifiably has been called one of the finest in the world (*The Boxwood Bulletin* Vol. 8 No. 3, Jan. 1969). Another impressive stand of *Buxus sempervirens suffruticosa* can be seen at the original site of the neighboring Colonial estate "Springfield." Over the years, these hedges have provided a local supply of clippings for propagation and Christmas decorations. All of the plants grown at Madoc Level are descendants.

George Mason "the Constitutionalist," a fourth-generation Virginian of considerable wealth, and his bride Ann Eilbeck first lived in the old Mason plantation house on Dogue's Neck (now Mason Neck). Gunston Hall was completed near by as their new home about 1758. Five years later, Martin Cockburn married George Mason's cousin Ann Bronaugh and built Springfield one mile west of Gunston Hall. Gunston Hall with its gardens, restored in 1954, is now open to the public as an historic sites. The original house at Springfield, which must have been the first high-priced Rambler in Fairfax County, was destroyed by fire around 1900. The Masons and the Cockburns were closely associated, not only as neighbors and members of the same social and political circle, but as intimate family friends.

At both homes, similar boxwood hedges were set out, parallel to the house and separating it from the garden area beyond. A centered opening gave access to the garden. At Gunston Hall, George Mason carried a long axial walk to a lower terrace

overlooking the Potomac River and bordered it with identical boxwood hedges. This apparently was not done at Springfield.

*Above: The suffruticosa hedge planted at "Springfield" by Martin Cockburn about 1763, as seen in January 1972.*

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*Below: A current descendant of the great hedge, aged about 13 years. All photographs by Mr. William Gray.*



Although no documentary evidence has been reported, tradition states, quite reasonably, that these hedges and gardens were established when the homes were built — i.e. 1760 plus or minus two or three years. Both men selected dwarf English Boxwood as hedgerow material at a time when this slow-growing cultivar was employed mainly in edgings for formal gardens. It seems unlikely that rooted cuttings would have been used for such a purpose, if plant material of more suitable size and age were available. Hence, it is suggested that these suffruticosa plants are now 225 years old, plus or minus five years.

By 1750, *Buxus sempervirens suffruticosa* had been established for fifty years in tidewater Maryland and Virginia, commonly as edgings in the Renaissance gardens of the more affluent tobacco plantations, and was widely propagated by rooting hardwood cuttings. Presumably, this Boxwood cultivar was imported originally from Europe, including England, as a luxury commodity financed by tobacco exports. While the stock planted at Gunston Hall and Springfield may have been imported from England by George Mason, as implied in some traditions, it is much more reasonable to assume that these plants were descendants of material grown on some nearby tidewater plantation. The famous English Boxwood at Mount Vernon, for example, was propagated from twelve rooted cuttings from Stratford, given to George Washington by Light Horse Harry Lee in 1785.

The 100-foot hedges at Gunston Hall and Springfield now have a spread approximating fifteen feet and are about eight feet high. The Gunston Hall hedges bordering the central walk, heavily pruned on one side to provide clearance, have reached a height of eleven feet. At both Gunston Hall and Springfield, these old specimens are exposed to full sun, are located on level to gently rolling ground, and are growing in a well-drained fine-textured sandy clay to silty clay loam soil (of the Matapeake and Sassafras series) that contains ample ground water.

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*Many of the stems in the "Springfield" hedge have reached massive proportions.*

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#### PLANTING ADVICE

Boxwood should not be grown outside its natural range without providing an ideal site where it is protected from the cold prevailing winds of winter and the drying sun of March. It should be well mulched in late winter so that the root area will remain cold as long as possible to prevent early breaking of dormancy.

This can be accomplished easily enough by the home owner. The nurseryman should line out his box between rows of conifers.

If it is planted in well-drained garden loam, it needs a minimum of fertilizer and is happy with a pH of about 6.5.

Wm. Pullman

# Frames To Protect Boxwood In Winter

William C. Trimble

The following remarks are not addressed to commercial growers or others having skilled horticulturists at their disposal. Both assuredly employ methods to protect their box in wintertime more effective and efficient than the one we use. Rather, these comments are intended for those who grow box without benefit of gardener and who because of insufficient time, indolence or some other reason, are unwilling or unable to apply the time-honored, brushing-off techniques immediately after each snowfall.

The need to safeguard our English Boxwood (*Buxus sempervirens suffruticosa*) against the ravages of winter was painfully brought home eleven years ago.<sup>1</sup> On return from assignment abroad we found the box so damaged by snow, resultant melting and freezing, and winter-kill that two tractor-trailer loads of broken, dead and dying branches had to be removed. Heretofore, the box had been cared for in our absence by an aged farmer, armed with broom or bamboo pole. However, the Winter of 1960-61 appeared to have been too much for him.

Our box grows in hedges on three sides of a rectangular area, 125' x 50', and in a circular stand in the center. The fourth or North side is a bank sloping down from a terrace. The garden was laid out between thirty-five and forty years ago with young, nursery-grown bushes which, from photographs taken at the time, appear to have been about a foot in height. The box has waxed considerably with the passage of years, the hedges are now between 4' 8" and 5' 10" tall and 7' 2" and 10' 8" wide while the center stand is somewhat taller and has a diameter of 15 feet. Because of the size and number of individual bushes, it was felt to be impracticable, and perhaps harmful, to tie each separately with twine in a pineapple shape, a protective device frequently used for smaller bushes.

Winters in Central Maryland are not, of course, as severe as in New England or the Midwest, but in temperature and snowfall do correspond to those in neighboring States on the Eastern Seaboard. Therefore, the protective measures we take should be equally applicable elsewhere in this general area. They are certainly not new, consisting of a simple arrangement of removable frames and supports. Yet for all its simplicity, mistakes in execution can be made and, as will be noted, mistakes that can easily be avoided.



Frames

Protective frames may be covered with lathes nailed across the width of the frame and set 1" to 1½" apart; a fairly rigid and close-meshed wire netting; heavy plastic sheeting; or a fibre-woven material. The first two types are stronger and longer-lasting than the two latter, but are heavier to handle, permit snow to filter through onto the crown of the box, and provide less protection against winter-kill. Plastic sheeting, although more durable than a fibre material, is not porous. After weighing the pros and cons, we decided to use a fibre covering. Initially, burlap was tried and which can be obtained wholesale from a mill or distributor in rolls of several hundred feet. However, we found that it had to be replaced every three or four years due to rotting, wind tears and depredations by birds and grey squirrels who discovered the insulating value of the threads for nesting. Accordingly, during the past years we have gradually replaced the burlap with the sacking of used feed bags. These can be purchased from a grain dealer or agricultural cooperative for considerably less than new burlap, and since their fibre is heavier and strong, they last longer. Little effort is required to slit the seams with a knife or razor blade, and when the sacking is mounted on the frame, the ends can easily be sewn together with binder twine.

As burlap or sacking, as well as plastic sheeting, "gives" under the weight of snow, the covering ma-

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<sup>1</sup>Our American box is far sturdier and more winter-resistant than its English cousin and thus requires no protective measure.

terial should be supported by chicken or, preferably, "peep" wire attached to the top of the frame immediately under the cover itself. For additional support, a second layer of wire netting may be attached to the bottom of the frame. To do so, however, not only increases the weight of the frame but also makes it difficult to tighten the bolts holding it together. Again initially, we attached the cover and netting with flat-topped penny nails but found that they caused the material to tear and some splintering of the frame itself. Therefore, both are now affixed with a hand stapler using 9/16" wire staples, and to lessen the chances of tearing, the cover material is folded under at the edges.

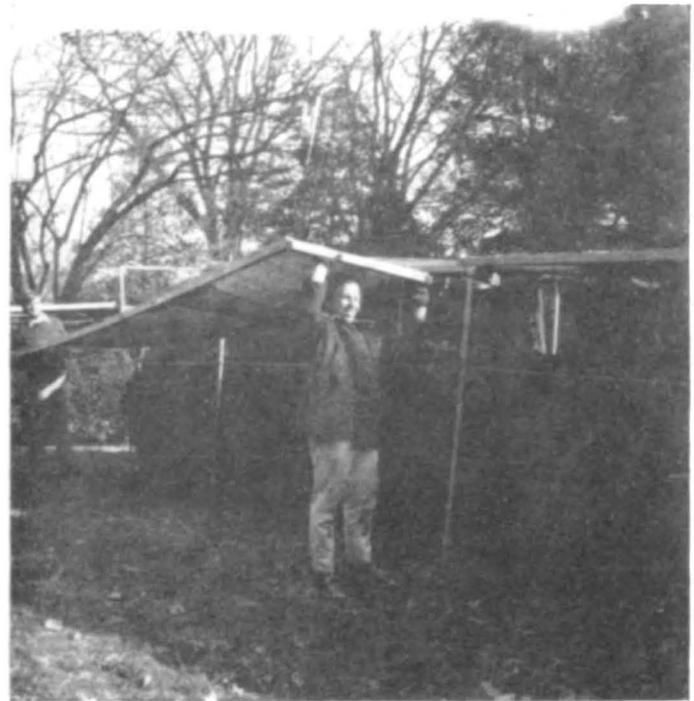
The frames are made of wood 2" x 2"s ( 2" x 1"s were found to be too fragile) bolted together at the inside corners with 4" corner steel angles and 3/16" x 2 1/4" or 3/16" x 3" bolts, four bolts to each corner. The bolt holes can easily be made with a small power drill. Depending upon the length of the frame, one or two crosspieces, also 2" x 2"s, are similarly bolted at the middle or one-third of the distance from either end, thereby providing additional strength to the frame. Frames are laid lengthwise on their supports. When placed in a series as, for example, to cover a hedge of box, the end of one should overlap the next by 8 inches to a foot so as to reduce shifting from wind or weight of snow.

The size or sizes of frames as well as their number depend, of course, on individual requirements. It might be well, however, to bear the following considerations in mind when determining their dimensions. 2" x 2"s come from the mill in 16 foot lengths, and to make a frame any longer by bolting two pieces together would weaken the support offered. The smaller the frame, the easier it is to handle but, also, the more liable it is to be blown off in a heavy wind. The wider the frame, the more susceptible it is to cracking under the weight of snow or ice. Thus, if the area of box to be covered is wider than say 4 1/2 feet, it is better to use two or more frames the same size laid parallel rather than a single wide one. Frames should, preferably, be made in not more than two or three uniform sizes, thereby precluding the perennial question of "Which goes where?".

It has not been necessary to screen the sides of our box except that facing South. There the rays of the winter Sun are strongest and, hence, the likelihood of winter-kill. To do so, strips of old grass carpeting are hung from the frames, although cornstalks wired together or burlap would do equally as well.

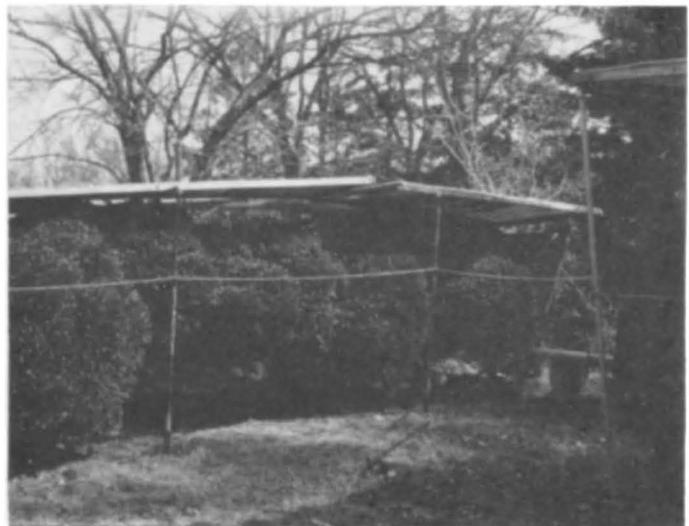
### *Supports*

For the first year or so the frames were supported by wood 2" x 4" uprights and attached crosspiece, with the bases sunk a foot in the ground. They were sturdy and rigid but also cumbersome and time-consuming to erect and dismantle, to say nothing



ing of the damage to the turf from digging post holes. Consequently, we now use supports of galvanized pipe, with the crosspiece connected to the uprights by threaded elbow joints. 3/4" pipe is employed for widths up to 7 feet, and 1" pipe, with a third upright added, where the space is wider. The frames should be 6 to 8 inches above the crown of the box to allow for growth and to permit the free circulation of air. The distance between each pair of uprights should be approximately 6 feet. As in the case of frames, the supports should, preferably, be of not more than two or three different dimensions.

Unlike 2" x 4"s, supports of pipe have a tendency to sag as the weight of the snow or force of the wind cause the frames to shift. Both base pipes and guy lines are used to minimize such movement. The former consist of 18 inch lengths of 1 1/4" pipe sunk



## A MISCELLANY OF OBSERVATIONS

### ON BOXWOOD

*J. T. Baldwin, Jr.*

in the ground to the depth of 17 inches and into which the support uprights are dropped. If not removed in the spring, the base pipes should be covered to prevent leaves and dirt from filtering in the opening. Tops of small tin cans, weighted down with several links of old tire chain and painted the same color as the box, make practicable as well as inconspicuous covers. As guy lines we use 1/4" manila rope, one strand on either side and two across the top of the supports, and attached to the pipes with a clove hitch. The ends are looped around 12" steel tent pegs and tied with a taught-line hitch so that any slack may easily be taken up.

#### *Maintenance*

Our box frames are put up around the middle of November and taken down towards the end of March. Two students from a nearby college are able to erect the 47 supports and 46 frames presently needed in two 8-hour working days, and to dismantle them in a day and a half. Most of the original frames and all of the pipe supports are still in use. Before being stored for the summer, the frames are checked for any loose bolts nuts, torn or rotted covers patched or replaced, and as occasionally happens because of undetected knots, broken 2" x 2" sides also replaced.

During the eleven years in which we have been using frames to protect our boxwood it has suffered no damage from snow or ice and relatively little from winter-kill. Perhaps our experience and the foregoing comments may, therefore, be of value to other box "aficionados."

Brooklandville, Maryland

March 7, 1972



*All photographs by William Gray.*

**Temperature**, in Williamsburg, Virginia.

In the latter part of December *Buxus microphylla* was in flower with a delicate fragrance pervasive for several yards, and the plants were visited by hundreds of honeybees and other insects.

In the middle of January the temperature dropped to four degrees above zero and after a short time rose again to a moderate temperature.

***Buxus balearica***: five plants in a group of six were seemingly killed, the other plant appears to be unhurt; a plant in a different location — about five feet tall and perhaps the biggest specimen on the United States — was killed.

***Buxus harlandii***: I have for years recommended this as one of the best boxwoods for the South, because it keeps such a deep green color throughout the year. All plants in this area were thoroughly browned except for an occasional branch that remained green, which suggests for these branches a somatic mutation for hardiness. Now, in mid-May, these boxes are becoming green again and will perhaps be more beautiful than ever as a result of denser branching because of having been cold-pruned. (Since all our plants of *balearica* doubtless represent one clone, the plant that seems hardy might also be the result of a somatic mutation for hardiness.)

None of our representatives of the *sempervirens* complex or of the *microphylla japonica* complex was affected by the cold.

While on the subject of somatic mutation, I report that we recently found a handsomely variegated one on tree box at Westover. The mutant branch had whitish silver leaves; I have previously observed similar mutants on this clone. This may well be the variegated box that was typically used in colonial gardens but has all but disappeared from cultivation. And it might be the plant that Custis called "striped box."

#### **Leaf Miners**

Thousands emerged in early March when there was no new growth on box for the deposition of their eggs. The insect and the plant were out of phase. Now a question: could this be a mechanism for control of leaf miners? But now in May they are emerging by the hundreds of thousands, and there is an abundance of new growth. Answer to the question: no!

THE AMERICAN BOXWOOD SOCIETY

## INFORMATION

### DUES AND SUBSCRIPTIONS

Regular membership dues of The American Boxwood Society are now \$5.00. This includes a subscription to *The Boxwood Bulletin*, to the publication of which the Society allots about 2/3 of the money received from dues.

Non-member subscriptions are for groups and institutions such as botanic gardens, libraries, etc. These are \$5.00 a year, and run by the calendar year.

The Boxwood Society year runs from one Annual Meeting to the next; from May of one year to May of the next year. Those joining the Society at other times are sent all the *Boxwood Bulletin* issues for the current Society year, beginning with the July number. Their dues are then again due and payable in the following May. This was voted by the Society in order to lighten as far as possible the heavy work load of our busy Secretary-Treasurer; who, like all other officers of the Society, is an unpaid volunteer.

Price per single copy \$1.25 plus 5¢ postage to members; \$1.50 plus 5¢ postage to non-members. Orders of five or more copies are sent postpaid. At the present time any or all *Bulletins* are available, back to Vol. 1, No. 1 (Vol. 1 consists of three issues only, there was no Vol. 1, No. 4.)

Besides regular membership dues at \$5.00 per year, there are other classes of membership available: Contributing, \$10.00; Sustaining, \$25.00; Life, \$100.00; and Patron, \$500.00.

Gift memberships are announced to the recipients by boxwood-decorated cards which carry the information that *The Boxwood Bulletin* will come as your gift four times a year.

Members of The American Boxwood Society are reminded of the 1968 IRS decision that contributions to and for the use of the Society, are deductible by donors as provided in Section 170 of the Code.

If your letter is concerned with  
Membership, new or renewal  
Payment of dues  
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Ordering Dr. Wagenknecht's List  
General information about the Society

write to  
Mrs. Andrew C. Kirby, Secretary-Treasurer,  
The American Boxwood Society  
Box 85, Boyce, Va. 22620

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If you have something of real importance — a question of policy, a new project for the Society, a matter which needs top-level consideration, write to

Rear Adm. Neill Phillips, USN Ret'd., President,  
Heronwood,  
Upperville, Virginia 22176

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If you have contributions for the *Boxwood Bulletin* — articles, news notes, photographs, suggestions of anything of probable interest to boxwood people, it saves time to direct them to

Mrs. Edgar M. Whiting, Editor,  
The *Boxwood Bulletin*,  
415 West Clifford St.,  
Winchester, Va. 22601

This applies to criticisms and corrections, too — "We regret errors; we welcome corrections."

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## **BOXWOOD—**

*A heritage from Yesterday*

*A privilege for Today*

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