

FRIDAY AFTERNOON SESSION

December 5, 1958

The meeting was called to order at one-forty o'clock by President Steavenson.

PRESIDENT STEAVENSON. Will you please take your seats, and we will get our afternoon program underway.

Roy Nordine said you asked for plant materials, and this afternoon you are going to get it. He has certainly lined up an outstanding symposium on noteworthy woody ornamentals. Our moderator for the afternoon program is Mr. A. R. Buckley, Dominion Arboretum, Ottawa, Canada. Mr. Buckley.

MODERATOR BUCKLEY: Mr. Chairman and Fellow Members of the Propagators' Society. This afternoon pleases me very greatly indeed, because we are having a series of talks on new and noteworthy plants. This signifies to me that the propagator is not only interested in the propagation of plants but he is also interested in acquiring new plants. I am sure that a great many of our institutions, both commercial and otherwise, owe a great deal of their plant selection to the work of the propagators themselves.

I hope that the result from this afternoon's talks will leave everybody free to ask for materials which they think might prove desirable in our own establishments. I am sure people are always willing to cooperate since everyone likes to see different plants distributed throughout the country so we see less monotony and more variety.

If any of you would come to my office you would see a great untidy desk. For a year I have had this pamphlet on my desk and I never dreamed I would be introducing one of the men responsible for this work. However, it now gives me a great deal of pleasure to introduce to you the head of the Horticultural Department of Ida Cason Callaway Gardens, whom I am sure you all know, if you don't you certainly will get to know him. Dr. Fred Galle.

Dr. Fred Galle presented his paper entitled, "Plants at the Ida Cason Callaway Gardens." (Applause)

(Editor's Note: Dr. Galle integrated his discussion with a set of well chosen, colored slides, which unfortunately cannot be included in the Proceedings.)

PLANTS AT THE IDA CASON CALLAWAY GARDENS

F. C. GALLE

Ida Cason Callaway Gardens

Chapley, Georgia

This is one of the newest gardens in the United States and one of the largest. The Gardens were initially started in 1947 and were formally opened in the Spring of 1952. At present, they comprise 2,500 acres with over 300 acres in water in ten lakes, ten miles of scenic drives throughout the area, and three miles of walking trails.

The main plant collections are native plants of the Southern Appalachian region, however, there are on the walking trails, collections of

American hollies. Collections have also been started of the Flowering crabapples, *Camellia sasanguas*, *Magnolia species*, and Hybrid rhododendrons.

The area of the Garden is normally considered in Zone 7, although, there are many plants that are normally considered to be for Zone 8 and 9, which can be grown in protected locations in the Gardens and, equally as well, many of the plants from colder regions of the country that are very satisfactory in this location.

There is one main function of the Gardens, which should be explained to all nurserymen (and I believe that this same condition exists with all other gardens and arboretums throughout the country,) in that we are a "service organization" for the nursery industry in as much as we are displaying plants and testing and evaluating plants for our own areas. These plants are on public display at all times so that often we can be called a "silent salesman." For example, during the past year, we had nearly 400 thousand people visit the Gardens and, of course, from these, there were many requests regarding the purchase of plants, where the various plants can be obtained and how they can best be used in their own landscape.

The Ida Cason Callaway Gardens is a non-profit organization. We do maintain our own greenhouse and nursery in order to propagate and raise many of the native plants that we are dealing with since they are not available in the trade and the volume of material that we are planting out in this area makes it impossible to purchase all our materials. For the last several years, we have averaged over ten thousand plants permanently placed in the Gardens, plus four to five thousand annual bedding plants that are normally used.

With slides, I will show you the main groups of plants that we are working with and will start with the native azaleas, including the Piedmont azalea, which is the most abundant. It is very similar to the species, *Rhododendron nudiflorum*, which is hardy further North. Another outstanding plant in our section is *Rhododendron speciosum* which is in the same alliance with *R. calendulaceum*; however, it flowers four to five weeks earlier than *R. calendulaceum* and there are numerous intergrades of this species and *R. canescens* and also *R. arborescens*, which can be found in the wild. We are working on increasing one of the rarest of the native rhododendrons, which we have in our section, ie *R. prunifolium*, an orange to red flowering rhododendron, which normally starts flowering with us around the first of July and flowers spasmodically through August and September. We have some interesting hybrid seedlings now, resulting from crosses between *R. prunifolium* and *R. arborescens*, and other earlier hybrids resulting from *R. calendulaceum* and other species. We have found that the propagation of the native azaleas is extremely difficult and, since a large volume of plants needed, basic propagation is by means of seed. We have had some success with root cutting of some species and there are several species, such as *R. arborescens*, which can be rooted from cuttings. We have also a collection of the Kurume and Indica azaleas and are working with the late flowering ornamental azaleas, such as many of the Glenn Dale and Beltsville hybrids, as well as the Chugai hybrids.

We have also, established a hybrid rhododendron trail, for we were of the opinion that hybrid rhododendrons could be grown in this warm climate and we have found that most of the difficulties do not result from the high summer temperatures, but rather from the fluctuating winter temperatures. We have had our best success with the old Waterer hybrids, which are commonly used on the East Coast. There also are some of the West Coast varieties, such as Mars, Pink Pearl, Vulcan, and others that are doing very satisfactorily.

On our holly trails, of which there are three, one is reserved for Oriental species, one for American species and one for English species. Our holly collection consists now of over 300 species and varieties and we are continually looking for new and better selections. Many of you I think are still of the opinion that yellow holly will not sell. All I have to say is if you show it to enough people you can't keep it. I think most of you have never seen good yellow fruited hollies, so we are basing it on the fact that holly should have red berries. Why should it have red berries? This is difficult to answer. We just have associated red berries and holly as being synonymous, although yellow fruited forms will show up oftentimes better than the red fruited forms. In poor light, poor locations you can always see the fruit on a yellow holly, but can you say that of a red fruit?

We have a non-fruiting dwarf type of *Ilex vomitoria*, the Yaupon. It does have a few berries, but it is not noted for fruit, but rather for its gray-green foliage. Those plants have not been sheared at all although they are about six years old.

We have a white-fruited form of *Ilex glabra*, which was found in Florida. There has been another strain or genotype found in New Jersey. I don't know that it has a great deal of possibility but at least there is a mythical white flower.

Another holly is *Ilex cassine myrtifolia*, which comes from South Georgia and Florida, is difficult to move, but is an interesting species in itself. It has yellow fruits with a little blush.

Then a group of hollies that are becoming quite popular in the South are the Foster selections. Mrs. Foster, of Bessemer, Alabama, made some five selections, among them Foster No. 2. It is a narrow leaf, opaque type, although it is a *I. cassine* hybrid. It has leaves like *Ilex opaca*, except that they are small, and it has the fruiting characteristics of the *Ilex cassine*. It is a very common plant in our section and works out very well. I might add that we have some Foster hybrids up in Ohio. I don't know how hardy they really are, although I would take a guess that the Foster hybrids might do well at least up to Cincinnati.

Ilex decidua is one of the deciduous types of hollies. Unfortunately, it does not fruit at an early age but will retain its fruit even when the leaves come on in the spring. Birds do not feed on it readily as they do on many of the other species. It is a desirable cut material type and does prove to be hardy up in many areas.

Ilex chinensis now called *Ilex purpurea oldhami* has nearly a smooth serrate leaf and looks like an evergreen pear tree, with red berries. It is a little more difficult to propagate than some of the other hollies although it still is a desirable plant.

Camellia sasanquas, the tall blooming camellias, are very satisfactory in our area and more so than the *Camellia japonica* species. We have now a collection of over 50 varieties which are used on the trail in conjunction with our Oriental hollies to give early fall color. There are many satisfactory plants within this group, from the singles to the semi-doubles to anemone types

Another group of plants we are interested in belongs to the genus *Lagerstroemia*. There are a number of varieties including the lavender form. A good light pink one is called Near East, Watermelon Red is another. These also make good small trees.

We have also started working with the dogwood genus, including a native form of *Cornus florida*. We don't know too much about it, but it is not a double. We are trying to see what we can do by grafting this plant. It is not a thing that you are going to grow a great deal of but it is very interesting.

After the series of color slides on plants, a few slides were shown of equipment used at the Gardens. One slide showed a coldframe constructed of Transite with Corrugulux used as a substitute for glass. Another showed a homemade compost shredder, operated on the power-take-off of a tractor, a leaf suction machine for the collection of mulch and a series of pictures of a steam cleaning jenny, which has been converted for use of sterilizing soils, with a quick pipe coupling which has been adapted for this operation.

Invitation is extended to all plantmen to visit the Gardens. We will be happy to exchange ideas and information with you and to aid in testing your plants in our particular area, if you are so interested.

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MODERATOR BUCKLEY: Thank you very much, Fred. We have time for perhaps three or four questions if anybody would like to ask them from the floor.

MR. N. C. FARR (Northeast, Pennsylvania): I wanted to ask you if *Ilex pedunculosa* is among the plants you have at the Gardens, and if so, how it is doing?

DR. GALLE: It is one of the plants that we have but it is also one of the poorer plants. We are unable to get it to grow as it does in other areas. We have only one plant now out of about 15 tries, and it is just holding on.

MR. JAMES WELLS (Red Bank, New Jersey): I want to ask Fred what is the longest distance you can carry your steam in your sterilizing operation?

DR. GALLE: The generator is portable and we can shoot the steam over 100 feet to the bed by using galvanized pipe. Flexible hose is best but it is extremely expensive, so we use galvanized pipe and bend a short piece of hose to get into the bed where you want it.

MR. FRANCIS de VOS (National Arboretum, Washington, D.C.): Someone asked about the hardiness of the Foster hybrid. I saw some at Warner's Nursery on the tour. Apparently it has been there for a couple of years. It does extremely well at the National Arboretum. This is rather strange and a little unusual, because *Ilex cassine* is not too hardy in Washington, but apparently *Ilex opaca* is a hardier form.

MODERATOR BUCKLEY: Our next speaker is a very charming and courageous young lady. Courageous because it rather reminds me of a lady driver. You know if you are a lady driver you really have to be good to avoid criticism from the men, and I am sure Miss Mary Milton is good in her work. I am going to call on her now to come up and address you. She is, by the way, propagator for the Morris Arboretum, in Philadelphia, Pennsylvania.

MISS MARY MILTON (Morris Arboretum, Philadelphia, Pa.): It is a pleasure for me to be here, and to discuss with you some of the plant materials we have growing at the Arboretum. If no one has any objections I would like to discuss these ornamentals from slides. May I have the first slide, please.

(Editor's Note: Miss Milton commented on each of these as follows.)

This tree is *Abies holophylla*, the needle fir. Although it gets quite tall, perhaps it could be used for small gardens. It has been planted at the Arboretum for ten or twelve years.

The Trident maple, *Acer Buergerianum*, is not too common. We have it planted in one of our Japanese gardens. It is quite a lovely thing, and has been planted there for some 40 or 45 years. It will be hardy in perhaps Philadelphia as its northern limits.

The Henry maple, *Acer Henryi*, would be hardy to about Boston, I would say. It grows about 30 feet high and our specimen has multiple trunks.

The next tree I have selected is *Acer macrophyllum* or the Oregon Maple. Although it comes from the western part of the United States, I think perhaps Philadelphia would be about its southern limits. The leaves are very large and trimmed with brilliant orange in the fall.

Actinidia arguta or the Bower actinidia has edible fruit which is quite a delicacy, I understand, in Japan. It has rather inconspicuous flowers in June. It is a good plant for banks, and the report is that it will stand conditions which many vines won't.

Cedrela sinensis or the Chinese cedrela belongs to the Magnolia family, and grows to a height of about 60 feet. It has been used as a street tree in Philadelphia. I might add that the bees use this tree quite a lot, although it takes a long time to flower, perhaps as long as twenty years.

The Harlequin Glorybower or *Clerodendron tricotomum* might be considered a weed further south than Philadelphia since it suckers quite badly and the foliage itself is rather coarse. The flowers are quite nice and the plant has bright blue fruit.

Cotoneaster salicifolia floccosa or the Willowleaf Cotoneaster looks much like a firethorn although it isn't. It is a Zone V plant and is a heavy red, fruited ornamental.

Davidia involucrata or the Dove tree takes some time to flower, and even then it flowers rather erratically. It comes from China and grows about 16 feet high. Philadelphia may be the northern limit for this plant.

Ehretia thyrsoflora will grow about 30 or 40 feet and is hardy in Zone 5 or Zone 6. It has large white flowers borne in panicles in mid-July.

This next tree has attracted quite a lot of interest in the Philadelphia area. As you may or may not know, we have a bee garden, and Mr. Slocum, who is the curator, has done quite a bit of work in trying to find trees which attract bees. He has found that this tree, *Evodia Daniellii*, is quite an outstanding tree for this use. It grows well and flowers quite late in the summer. *Evodia hupenhensis* is not considered as good a tree as *Evodia Daniellii*.

Eucommia ulmoides or the Hardy rubber tree is interesting because it is about the only rubber tree that grows this far north. The rubber it yields isn't enough to be worth while commercially.

The Franklinia tree, *Franklinia altamaha* is hardy to around Zone 5. It belongs to the tea family and will get about 30 feet high. The foliage is rather sparse. It blooms late in the season and begins to bloom in August and very often goes to the first of October. It has an excellent flowering habit.

Halesia monticola or the Mountain Silverbell is outstanding in that there are not too many insects attacking its foliage.

Kalopanax pictus belongs to the same family that ivy does and is quite unusual when it is young. It has little spurlike thorns that come out all over the tree. As I understand, it is quite disease and insect resistant.

Laburnocytisus adamsii, a hybrid, is a cross between *Cytisus* and *Laburnum*. I rather like the shape of the plant since it is a bit unusual, although I understand it is not too popular. It is more of a curiosity than anything else.

We have several plants of *Mahonia Bealei* planted in one of our Japanese gardens. I don't think it is my favorite plant growing in the Philadelphia area, because it is almost always subject to some winter damage and it is very stiff and formal.

Metasequoia glyptostroboides or the Dawn Redwood, has been planted in several locations at the Arboretum. One is near the street. We also have some planted on rather dry banks and they seem to have done equally well in both locations. The growth on the *Metasequoia* has been phenomenal. I have seen it grow from 3-1/2 to 4 feet in one season. Unfortunately they are deciduous.

Osmarea Burkwoodii is a hybrid, a cross between *Phillyrea decora* and *Siphonosmanthus delavayi*. It is evergreen in our area and is quite fragrant.

The Lace Bark pine or *Pinus Bungeana* is hardy in Zone 4. It is a truly lovely pine and has exfoliating bark. Unfortunately not too many nurseries carry this ornamental. We have many requests for the tree, and it is quite hard to find anyone who carries it. It has multiple trunks. I might mention also that it has some kind of disease or insect in the bark which is giving us some trouble.

We have had quite a few requests for scions of *Pinus griffithii zebra* or the Himalayan Zebra pine. It is lovely, with little bands of gold on the leaves having in addition all the soft texture of the Himalayan Pine.

Quercus macrocarpa 'Deamii' is a fastigate form of the Mossy Cap oak. It came from Mr. Deam in Northern Indiana.

Symplocos paniculata or the Asiatic sweetleaf, belongs to the rose family. The fruit is very bright and quite a delicacy for the birds, although it doesn't last long.

Xanthosceras sorbifolia, the Shinyleaf yellowhorn flowers quite late in May. I understand it is hard to transplant.

Mr. Fred Burton of Cedarville, near Philadelphia, has an amazing collection of dwarf plants. One of these is *Picea abies microsperma*, the Dwarf spruce. The annual growth is supposed to be about one or two inches.

I couldn't find any authority for *Tsuga* "Jervis," the Jervis hemlock. It is reported to be 25 years old and is only about eight inches tall. I do not know the species. Another one of the most interesting dwarfs Mr. Burton has growing is the Golden weeping cedar, *Cedrus deodara pendula aurea*. It is the only one I have ever seen. This plant is only about 18 inches high.

(Editor's Note. Miss Milton completed her discussion by showing a number of scenes and landscapes of the Arboretum.)

MODERATOR BUCKLELY. Thank you very much. I am sure you appreciate the fact now that many of these lady gardeners do know their stuff. We have two minutes for questions.

MR. JAMES WELLS: Miss Milton, can you give us anything on the propagation of *Pinus Bungeana*?

MISS MILTON: The Zebrina pine, you understand, is grafted on the species of Himalayan pine. *Pinus Bungeana* is grown almost entirely from seed. There are a number of nurseries I know that carry them.

MR. WILLIAM FLEMER: Jim, I believe the Arboretum may graft *Pinus Bungeana* on *Pinus strobus*. We have some plants that have been grafted that way and they have done very nicely.

MR. C. W. HESS: We have grafted *P. Bungeana* on either White pine or Scotch pine, and they do very well.

MR. NORDINE: Don't get the idea you can graft White pine on Scotch pine. All pines are of two general types, the five-needle pine and the two or three needle pine and they are not compatible one on the other. When you graft, put the five needle pine on the five needle pine, and the two and three needle pine on the two and three needle pines.

MODERATOR BUCKLEY. If there are no more questions Dr. Hodge, our next speaker, is going to speak to us on the plant introduction program that I understand is going to be carried out at Longwood Gardens. Dr. Hodge is in charge of this new program. Dr. Hodge. (Applause)