

## METRIA PANEL

Chairman: Henry Gerhold, The Pennsylvania State University,  
University Park, Pennsylvania

Now we enter the dangerous period. We have heard many viewpoints about how to select trees, what yardsticks we should use when comparing them, and we now have a list of favorites. These species and cultivars all are promising possibilities for use on our streets. But now we must decide what we as a group are going to do with this list. What actions are we going to take? We should try to promote interest in these trees on the part of the user and the producer, and a testing program should be initiated to evaluate their performance under urban street conditions. All of these things must fit together for any one of these species to be tried and eventually used on a large scale.

So I ask the METRIA panel to address these issues, to offer their ideas, and then we will open the meeting for discussion. We will start with Ray Brush, an organization man with lots of experience. Ray has worked for years with nurserymen through his association with the American Association of Nurserymen. He is well aware of the diversity of interest and opinion in the nursery industry as well as the problems of organizing new programs.

Ray Brush, American Association of Nurserymen, Washington, D.C.

These comments are by an individual who is indirectly involved in the production and use of trees. I work with and for people who produce and use trees daily.

The American Association of Nurserymen can best assist METRIA in the distribution of information and recommendations arrived at by METRIA. The proceedings of this conference will be brought to the attention of the membership of the Association through direct announcement and through press releases to the trade journals. This is as was done with the earlier proceedings.

I think that if the proceedings are publicized and widely distributed there are people who will have their imaginations stirred and they will reexamine some of these trees. One thing that was stated earlier that deserves reemphasis is just because we have tried a tree species and did not have success with it does not mean we should damn that species. We should be willing to at least try another selection of it. This is especially true of trees introduced from other parts of the world. If they have

some negative characteristics, we should go back to their source and determine if there are selections from somewhere in their native range that are more hardy or have some other desired characteristic.

The AAN will be pleased to assist in bringing the list of "selected, little known and little used trees" to the attention of the membership and encourage those members who are producing those trees to list their availability in the AAN's annual Sources Of Plants And Related Supplies. The list will also be made available to the members of the Wholesale Nursery Growers of America, suggesting that they take another look at the possibility of producing and marketing these trees. The list will also be made available to the members of the National Landscape Association, which is made up of full service landscape firms (those providing design, planting and maintenance services) for their consideration in using these trees in those design plans where the plants are adapted.

AAN can also assist in publicizing additional information on the geographic adaptability of these trees as additional research and observations become available.

Since many of the trees are native to various areas of the country and are sometimes known by colloquial names, AAN will assist in emphasizing the correct botanical name and the preferred common name.

Additional research should lead to clonal selections for other regions of the country to which the selections currently in the trade were either borderline or not satisfactory. Also, additional clonal selection should be considered for such factors as ease in propagation, more attractive bloom, better fall color, resistance to insects and diseases, resistance to drought, etc.

By coordinated effort of the various disciplines represented in METRIA, we will bring favorable attention to little known and little used trees to the gardening public, whose use will enrich the environment about us.

Denny Townsend, U.S.D.A. Nursery Crops Research Laboratory,  
Delaware Ohio

One of the major problems, as I see it, is economics. The nurseryman is not willing to grow a lot of these species because the arborists are not ordering them. The demand is not there. So one suggestion I have is for METRIA to

somehow provide a system to guarantee that if a nurseryman grows some of these little known and little used species that the arborists will buy them. I'm thinking that perhaps at the start the arborists and this organization could provide a guarantee to the nurserymen in this organization that they would buy some of the trees discussed today on a contractual basis. I suppose we could start with one species. But before many of these will be put into use we have got to generate demand. I am sure there are enough interested arborists right here in METRIA to get this started. That's one suggestion that a committee could work on.

Along these same lines, if a system were set up so that nurserymen were growing some of these trees with the promise that the arborists would buy them, the researcher could step in and evaluate them after they were planted in the city. The nurseryman would be gaining sales, the arborist would be getting some interesting trees, and the researcher would be able to evaluate the trees under urban street conditions.

Another approach would be to pick one species and let a geneticist go out and select from the best seed sources or collect vegetative material from superior trees. This could be given to the commercial nurseryman who could grow it onto size for the arborist to plant. These trees would then be available for performance testing. I think it would be very important to have this information on genetically identified material.

Dick Abbott, Director of Davey Environmental Services,  
Kent, Ohio

As I sit here with this very distinguished panel, I wonder where I fit in--as a commercial, utility, or other arborist. I now work with municipalities on a consultant basis, advising them on which species of tree to plant in particular situations. I have been helped in this position by the shade tree evaluation project based at the Ohio Agricultural Research and Development Center in Wooster, Ohio. It is one of the most comprehensive projects for the evaluation of shade trees for the urban/suburban environment. It was initially supported by the utilities, but even though they have withdrawn their support, it is still an ongoing viable project. There has been a great deal of excellent information provided by that project, not only from the test plantings at Wooster, but from evaluations of particular species along city streets. I feel that we need more projects in which we evaluate the performance of currently used trees as well as the little known, little used species.

We currently have a contract with Prince Georges County in Maryland, Montgomery County, and the city of Baltimore to evaluate the species and cultivars planted on narrow downtown tree lawns and in the suburbs in the last 10 years. We are going to look at whether they were planted bareroot or balled-in-barlap, their seed source, the seed source of the rootstock of grafted material (if available), and the nursery that grew them to saleable size. The people in Maryland want this information so that they can use it as a guide to make the best decisions when buying trees in the future.

I think there is a need for more of this type of research on a regional basis. The information from Maryland alone will not necessarily be applicable to Illinois or Texas or some other state.

Working with municipalities advising them on their street tree plantings, I have developed a feel for what they want. Some of my original ideas have changed. I guess you get wisdom with age, and I may get there yet. But we talked about sound barriers and somebody mentioned using hybrid poplars for them. These were often considered junk trees. But if a municipality wants a sound barrier along an interstate highway they don't want someone to plant four or five year old pine seedlings that will be effective 15 or 20 years later. Hybrid poplars that grow 10 feet in three years, planted in multiple rows, provide the quick screen they do want. As a utility arborist, I often recommended globe Norway maples and globe sugar maples under electrical wires. Some of those places could have taken a larger tree. When I go back to those places 10 and 15 years later I'm not satisfied with what those trees do for their sites. Many of the globe trees appear to be too formal, they don't develop sufficient size, and they have not turned out to be what the municipality wanted. Municipalities want something green that grows reasonably fast, is relatively maintenance free, and ends up resembling their concept of a tree. As a consultant, I have to recommend species that meet these criteria or they are going to find another consultant. The educational problem we have is to promote the best species and varieties currently in use while at the same time introduce the best of the little known, little used types.

Lewis C. Chadwick, Consultant and Professor Emeritus of the Ohio State University, Columbus, Ohio

While I am not on a panel to submit a list of 5 top prospects of little-known or little-used species, I am

taking the liberty of doing this anyway.

It is my opinion that any list of selected plants for city planting should rate high considering the following factors: hardiness, durability, adaptability, low maintenance, and possess superior characteristics of: branching habit, foliage, and under some conditions, attractive flowers and/or fruits, I am sure nurserymen would add to these factors and characteristics--ease of propagation and production.

I have observed the following five species in Ohio, and most of them in other states, for several years and believe they all possess superior characteristics and are likely to succeed in many metropolitan areas.

*Corylus colurna* (Turkish hazel) -- A medium to large tree at maturity, pyramidal in form with sturdy, ascending branches. Hardy in Zone 4. Durable and adaptable to a wide range of soil conditions. Drought resistant. Medium growth rate, free from pests and requiring little maintenance. Said to be susceptible to Japanese beetle. Excellent dark green foliage and attractive bark and fruits. Plant where a formal character is desired, as a street tree or other large area. There are propagation difficulties.

*Eucommia ulmoides* (hardy rubber tree) -- A medium to large tree at maturity; of medium to rapid growth rate. Rounded in form with ascending branches. Hardy in Zone 5. Durable, extremely drought resistant and adaptable to a wide range of soil types. Pest free. Excellent dark, glossy, green foliage retained throughout the growing season. Propagation has been difficult. Easy to transplant. Needs attention to pruning in nursery to avoid poor branching habit.

*Ostrya virginiana* (American hophornbeam) -- Medium sized tree at maturity; of upright, rounded habit. Hardy in Zone 4. Durable and adaptable to a wide range of soil conditions. Good, sturdy branching habit, requiring little maintenance. Pest free. Attractive, shredding, plate-like bark. Foliage dull, light green, turning reddish in autumn. Attractive fruits. Somewhat difficult to transplant.

*Quercus bicolor* (swamp white oak) -- Medium to large tree at maturity; upright, spreading in habit of growth, forming a rounded, open head. Hardy in Zone 3. Medium growth rate. Durable, requiring little maintenance. Essentially pest free. Sturdy branching habit, with flaky or scaly bark, particularly noticeable on young specimens. Attractive, large foliage, dark green above, whitish hairy

beneath. Seemingly adaptable to a wide range of soil types, doing especially well in wet soils. A good root system, among the easiest of the oaks to transplant.

*Quercus shumardii* (shumard oak) -- A large spreading tree at maturity of rapid growth. One specimen planted on the campus at the Ohio Agricultural Research and Development Center, Wooster, Ohio, as a 2 inch caliper specimen in 1950, is now 26 inch DBH, and over 50 feet in height. Hardy in Zone 5. Durable, widely adaptable, and essentially pest free. Good branching habit and excellent dark, glossy green foliage, with leaves turning bright red in autumn. Easily propagated and transplants readily. Plant where ample space is available.

Now I come to the purpose of this panel--what can METRIA do to promote and encourage the use of selected species and evaluate their performance? I have broken my discussion down into three parts; promoting and encouraging the use of selected species, evaluating the performance of selected species, and overcoming problems of propagation and production.

Let me preface my remarks by saying that I don't believe availability problems lie with the nurseryman. If there is a demand for a plant the nurseryman will grow it. It is that simple.

(Dr. Chadwick then presented his talk in outline form).

I. Promoting and Encouraging Use of Selected Species.

1. Must get selected species known by all concerned:
  - a. Nurserymen
  - b. Landscape architects
  - c. Landscape contractors
  - d. City personnel
  - e. Homeowners
  - f. Educators
2. The promotion of these plants should be done through:
  - a. Demonstration plots located in:
    - 1) Arboreta
    - 2) Botanic gardens
    - 3) Public gardens
    - 4) Educational institutions
  - b. Planting on:
    - 1) City streets
    - 2) Other public areas
    - 3) College and university campuses

- c. Educational sessions:
    - 1) Trade organizations - architect-landscape-nursery related
    - 2) City personnel
    - 3) Garden clubs
    - 4) Civic organizations
  - d. Including selected plants in college & university plant materials courses
3. Publicity:
- a. Trade and consumer press releases on:
    - 1) Superior characteristics of selected plants
    - 2) Where and under what conditions selected plants are most successful
    - 3) Where selected plants can be observed

## II. Evaluating Performance of Selected Species

- 1. Support of current on-going evaluation research studies
- 2. Incorporate evaluation studies with:
  - a. Demonstration plots
  - b. City plantings
  - c. College & university plantings
- 3. Compile evaluation information:
  - a. From established studies
  - b. From individual experiences of green industry members. There is a tremendous amount of information here if we could only establish some way of collecting it.

## III. Overcoming Problems of Propagation and Production

- 1. Provide or obtain funds for research studies
  - a. Sources:
    - 1) Federal government
    - 2) State government
    - 3) Green industry organizations
    - 4) Other sources
  - b. Where conducted:
    - 1) USDA research stations
    - 2) State research stations
    - 3) Private research stations

- 4) Colleges & universities
  - 5) Trial & error by green industry members or others. How can we compile what we have all learned from experience?
2. Most problems can be solved if funds, personnel and time are available
    - a. If there is a demand for selected species, problems of propagation, production & merchandising will be solved.

Henry Gerhold:

We are almost ready for the discussion, but I would like to add just a few words before we start. We have heard from the panelists about some of the actions that are required before some of these promising little known species can become commonly used species. We have also heard several suggested approaches that might be taken to overcome particular barriers to the introduction of these trees into common use. In trying to simplify and condense some of those ideas, I see two areas of activity--information dissemination and study of the plants themselves. We need to collect more information on the characteristics and performance of these promising species and disseminate it through educational activities. At the same time this information has to flow out to the production part of the process so that the trees become available when interest in them is developing. The problem is not only developing interest in these trees, but developing it at the proper time so that it is coordinated with production.

At the same time we must be working with these trees outside of the production channels, in the improvement part of the process. As I see it, part would occur in the nurseries and part in various research institutions such as universities or other government institutions. We should not only be growing species, but the best trees propagated from the best populations and/or individuals of that species. At the same time, we must get representatives of these varieties out on the streets where they can be observed. I think all of us would agree that we not only want to see printed information, but we want to look at the trees themselves--that is what's really convincing. We can produce fine statistical results, but I believe we will not be able to transform the promising species to commonly used species until people gain confidence in them through personal exposure to them.

The contribution I would like to make to this panel is

to suggest a process that ties together some of these ideas. It is represented to some extent by the publication which I hope all of you have picked up-- an approach to Performance Testing. Through some research support, we have developed a performance testing process that is built to a great extent on the work that has been done in Ohio at the Shade Tree Evaluation plots. Both types of information have been collected in the plots at Wooster and from the streetside plantings. We think we have a fairly good process. We have tried to get the Forest Service interested in supporting it on a rather extensive regional basis. That has not met with success. We are currently revising the concept so that individual states that would like to develop a performance testing program can use this methodology and adapt it to their own situation. If enough states do this, using standardized methods, the original concept might go forward and we could end up with a fairly extensive system through which we could compare characteristics like survival, transplantability, and early growth rate. Later on when the trees reach a larger size other equally important characteristics could be evaluated--form, structural strength, pest resistance, and surface root development.

These have been ideas I would like to see included in the discussion--what role might METRIA play and what specific actions might we in METRIA take to carry our proposals forward. With that I would like to open the meeting to discussion.

Bud Green: I have a couple of points I would like to make. First, I think a primary service that METRIA could provide is the production of a directory of people working in this field, categorized by their major area of interest. Ray Brush, you have a source of plant material, why can't we have a source of expertise in the field? I wouldn't limit it to just members of METRIA. We should actively seek out others working in this area and encourage them to participate and join our organization.

Second, Mr. Abbott, your research in Maryland is of interest to me because the state highway administration is right now developing a research project to evaluate all of our tree plantings along our whole highway system in Maryland. It is in cooperation with the University of Maryland and is sponsored by the highway research board. It is projected to take about three to five years and should result in quite a pool of information. We will of course share this information with everyone interested in it.

We will be looking at the plant material, site conditions,

quality of the planting operation (i.e., depth of planting), major diseases, and insect pests. We're going to be looking at the broad spectrum--everything that could have affected that plant's development.

Dick Abbott: Everything you mentioned will also be included in our study. We will computerize the information then make it available to the public.

Jim Sherald: I'm curious as to how many landscape architects are members of METRIA. In terms of creating a demand for some of these improved species and selections, I think we should recruit the aid of landscape architects. I know that in our area they have a large influence over what species we plant and use. I was thinking yesterday on the tour and during our discussions today that many of them really would have benefited by the information presented.

Denny Townsend: We do have a few members that are landscape architects, but not many. It would be a good idea to encourage more to join.

Jim Evans: I have a comment for Ray Brush. The importance of seed source was mentioned by several people today. I would like to recommend that AAN's standards committee develop some standards that would encourage nurseries to record and make available to the consumer detailed information on the seed source of their plant material.

Bill Flemer: Our nursery, and many others, try to collect seed from the area in which our nursery is located, or a little bit north, because we ship a lot of material north. We do not like to use seed that was collected very far south of our nursery. If we don't have a local crop, though, we have to buy from a seed company. Except for certain forest species, mostly conifers, they don't provide information on where the seed was collected. Seeds of ornamentals are sold in such small quantities that the information just does not seem to be available. The seed companies don't want to be bothered supplying the information unless it is for large orders.

Jim Evans: That is the problem. They should at least state the projected hardiness of plants grown from their seed.

Bill Flemer: If we have not collected our seed locally, we can not tell you. However, when dealing with exotics, like Norway maple, it really doesn't matter whether the seed came from New England or Maryland or Oregon. It's the same

Norway maple we are all growing, unless of course you import your seed from its native range in Europe. This information would be very difficult to list in our catalogue because it would change so often. For instance, sugar maple bears a good crop of seed about once every seven years in our part of its range. So when there is a good year, we collect a lot of sugar maple seeds and they will often be from street trees. Well where did those street trees originally come from? Noone really knows now. So unless we collect the seeds ourselves, from trees native to our particular area, like red and pin oak, sweetgum, or red maple, we can't be particularly helpful in supplying seed source information.

Henry Gerhold: In view of the importance of seed source, is there any way this situation could be changed? At least in certain species seed sources are quite important.

Bill Flemer: Take Stewartia. It doesn't matter where the seed comes from because its all from some unknown original source. If you get seeds from three or four different dealers from around the country, its still the same old Stewartia. So we can say Herbst Brothers, but that doesn't tell you anything.

Henry Gerhold: My impression is that seed dealers won't pay much attention to seed source unless there is a real demand for the information. I wonder if nurserymen as a group insisted on having it if they would change their ways.

Bill Flemer: If you are dealing with plants that have a wide range, like red maple, it is terribly important. If you are dealing with half of the trees we grow, particularly those from the orient, it is meaningless. You might want to request it for a limited number of plants.

Ray Brush: One answer to this problem, until we know more ~~about it~~, is to depend on nurseries that continue to market in the same area. These nurseries have significant investments in capital and time and they try to develop markets for their products. If the nurserymen are any kind of businessmen, they are going to be trying to grow the varieties that are best adapted to their market area and the needs of their customers. I think that METRIA can serve them by informing them of some of these alternatives.

Jim Evans: As a municipal arborist who wants to try some of these unusual species, I have a problem finding them in nurseries in our area. We have to look to nurseries in

several states to the south or states in completely different hardiness zones to find them.

Bob Miller: As a past municipal arborist, I know just how you reel. It would help if nursery catalogues had a page on which arborists could write down what they wanted each year, species and number, and send that back to the nurseries. This would get the needs of the arborists to the people that could do something about it.

Ray Brush: It's not a one-way street. A number of years ago at an Ohio highways research meeting I suggested that their landscape section should indicate to us the shrubs that they projected using in the next three years. I told them that if they provided me with that information I would make it available to the producing nurseries. The same thing could be done here. If the consumers would indicate how many of each type of tree they plan on using, I can summarize and distribute it to the nurserymen.

Denny Townsend: I wonder if METRIA might consider conducting an annual survey of what arborists might want to buy. Not necessarily just the METRIA membership, but other arborists as well. The results could be transmitted through the AAN to the nursery industry.

Ray Brush: Might I suggest that instead of just the arborists. let's break it out into two or three types of use--residential, highway, and street.

Davis Sydnor: That kind of information would be easy to tabulate using computers. I am in the process of trying to do something like that for the material in the shade tree evaluation plots. I am going to do it, it's easy to do. But it's \$10 an hour for typing and \$900 an hour for computer time. And Ohio State is relatively inexpensive.

Robert Westfall: That's what you're paying per job?

Davis Sydnor: No. If the job takes a millisecond it costs considerably less. If it took an hour it would cost my research budget \$900.

Chris Sacksteder: But does it actually take that much time?

Davis Sydnor: No, not hours, but it's going to take a lot of time. You must not only pay for core time, but printing time, also. What I am saying is--easy to do, who pays for it?

Denny Townsend: I could see the nurserymen bearing part of the core costs because he derives an advantage from the project--more predictability in his business.

Davis Sydnor: There are an awful lot of nurserymen in Ohio **that would** absolutely adore having that kind of information.

Larry Kuhns: I have done a few surveys of nurserymen and **landscape** contractors in Pennsylvania and their response rate is always quite low. I have a feeling that for a project like this computer time is a minor concern. The major problem would be getting the participation of the people who would have to supply the information, and I just think that is hopeless. If you asked the people in this room to participate you would have a very high percentage, but I would not even expect 100 percent return here. From the general population, I doubt that you would get enough information to make it worthwhile.

Davis Sydnor: You would probably have to run the survey 5-10 **years before** there would be much participation.

Tom Perry: Every now and then I try to get my daughter to **eat mushrooms**, but it doesn't work too well. The theme of this panel is how can we make little known and little used species commonly known and used. A comparable situation, occurred in the forest industry. In the southeast, we planted slash pine throughout the 30's because we knew it would run gum for the naval stores. The wood wasn't worth much. Suddenly wood became worth something in the south, and you know it took us 20 years to convince people that loblolly pine would produce 10 cords more wood at 50 years than slash pine. Now that wasn't a matter of developing the technology of selecting and evaluating improved strains of slash or loblolly pine, we had all that information. The point was getting them to convert from one species to another.

Here we want to convert the little known and used to the commonly known and used. I want to ask the group here the general question, how many examples do we have where this has actually been done? Thornless honeylocust has probably become too commonly known and used, and is planted far beyond where it ought to be. And Bradford pear is now being planted far beyond the range to which it is well adapted. But how did those come about and how many similar examples are there?

Bill Flemer: There are quite a few. What has always been required, though, is for one substantial nursery to

decide that the plant was a good one, then really grow and promote it. That was true in the Siebenthaler nursery with honeylocust. When I was a kid honeylocust was a weed tree in the same category Ailanthus is today. Then John Siebenthaler began growing and promoting it, Cole's picked up on it, and we at Princeton started growing it. We all really made it go because we had a vested interest in it. It is a practical and economical tree to produce.

Zelkova in the various forms that are available would be another example. That was an unknown tree less than 20 years ago. Bradford pear was a USDA introduction, but it did not go far until some nurseries really started growing it. It can be done, but you must pick practical trees to promote. I think we have to look at the trees mentioned today from the production point of view. To take a silly example, you can make a shade tree out of a regals privet if you want--stake it up and fuss with it. It can be done, but is it practical? No. When you take plants like Styra or Parrotia, or some other plants that want to form clumps, and you try to make trees out of them, you have a very slow and expensive process ahead of you as a producer. A two inch Norway maple now sells for about \$45 balled in burlap. With these others you are going to be talking in terms of \$80-90, or some such relationship in the future. so I think that when the committees get together and start to evaluate the many interesting plants that have been mentioned today, I hope that they also look at them from the point of view of the producer. Can they be economically and practically grown?

Henry Gerhold: There is another part to the original question raised by Dr. Perry. All of the cultivars that have become popular are examples of unknowns that have made it in the trade. But the other part of the question that I would raise is, how many are enough? In other words, we keep adding species and cultivars while lately nurseries have been forced to retrench. They are growing fewer species and cultivars than in the past. Do we have enough now or do we need to promote additional ones?

Lewis Chadwick: We always need something better.

Tom Hall: I would like to endorse your remarks about the introduction of new species. We have had many examples of new species being successfully introduced in Britain. But listening to all of your deliberations today, I am reminded of the old question, which came first, the chicken or the egg? I believe the onus is on people like myself who have to keep there eyes open for better tree species.

We can't just depend on the manuals; we must go out to the arboreta and tree collections and make a damned nuisance of ourselves. Then when we find something we like we should go to the nursery trade and say, in four years I want 100, 200, or 1000 Turkish hazel, Malus cultivar, or whatever it is we want. The impetus must come from people like ourselves.

Dave Karnosky: Henry, I've got to make a comment in regard to your question as to whether or not we have enough cultivars on the market and whether or not we ought to be looking for new ones. I don't think we should ever sit back with what we've got on the market without looking to prevent or limit new disease outbreaks. For instance, the aggressive strain of the fungus that causes Dutch elm disease, the new strain of canker on red pine, and things like fireblight are examples of pathogens that are continually mutating. There are new strains of them continually developing. I believe we must always be actively searching and selecting for improved tolerance and resistance and not just be satisfied with what we've got.

Bud Green: Back to the surveys. Before you undertake a survey, you must let the people you want to supply the information know you will do a creditable job. They have got to know that the information they are going to take the time to provide will be utilized. As an example, about seven years ago we at the state highway administration projected that we would be increasing considerably the quantities of plant materials we would be ordering. At the time, we had no idea where we would get it. So I surveyed the nurseries that were our prominent suppliers and told them we needed to know what plants they were going to have available during the next five or six years. We said we would use the results of the survey when selecting plants for our designs. I had a 100 percent response rate. I collated all the information and then notified the nurseries that we would in fact use it as we had promised. That has proven to be quite effective for us until this year, because now the material is a bit out of date. We have again requested information specifically on the plants we utilized and asked the nurserymen to indicate whether the material will be available in good quantities, poor quantities, or unavailable in the next five years. It has been a good source of information for us and it might be a line this group might pursue.

Davis Sydnor: It seems to me you had one very real advantage over an organization like METRIA. METRIA does not buy tree one.

Larry Kuhns: In the promotional end of this program, I think you should keep the Cooperative Extension Service in mind. They have an established system for getting information out to people. Well written news releases can receive wide coverage in newspapers across the state in which they are distributed. There are also tv and radio stations across the state that have regularly scheduled extension programs. The extension personnel responsible for the programs are always looking for someone with good information to present. They have to fill a certain number of slots, so if you come up with a good idea they'll welcome you with open arms. Granted, the times are normally not the best, but you do reach hundreds of thousands of people. I don't think this possibility should be passed up when planning a promotional program.

Tom Hall: Nurseries in England have had success at introducing plants at our major flower and garden shows. Can your trade launch desirable tree species at similar horticultural gatherings of national importance?

Ralph Veverka: I'd like you to know that the municipal arborists would help provide propagation material for use either by arboreta or nurserymen in this overall project. Trees that are growing and thriving along city streets would be good sources of propagation material because the selections have proven to be hardy under street conditions.

Henry Gerhold: We have heard a number of good ideas and suggestions from the audience and panelists which have contributed to the success of this meeting. I have enjoyed it very much and I would like to thank all of the panelists--I think you all have done a marvelous job.