



Florida Department of Agriculture & Consumer Services
BOB CRAWFORD, Commissioner
The Capitol • Tallahassee, FL 32399-0800

Please Respond to:
Division of Plant Industry
P.O. Box 147100/1911 S.W. 34th Street
Gainesville, Florida 32614-7100
Phone: (352) 372-3505/Fax: (352) 955-2300

January 11, 2000

MEMORANDUM

TO: Members of the Florida Citrus Canker
Technical Advisory Task Force (FCCTATF)

FROM: Richard Gaskalla, Director
Division of Plant Industry
Florida Department of Agriculture and Consumer Services (FDACS)

SUBJECT: Summary Minutes of the FCCTATF - November 16, 1999

Please find enclosed the above subject meeting minutes for your information and review. Please note the location, along with the date, and time of the next FCCTATF:

Thursday, February 3, 2000, 9:30 AM, in the Florida Room, at the Florida Citrus Building, FDACS, Division of Fruit and Vegetables, 500 Third Street Northwest, Winter Haven, Florida 33882-1072.

Should you find any errors or omissions in the minutes or have any questions or comments, please contact my office. Thank you for your assistance.

RG/bsm

xc: Richard Gunnels
Sandy Roberts
Alternate Members
Interested Parties

Enclosure: FCCTATF Minutes



Florida Agriculture and Forest Products
\$53 Billion for Florida's Economy

Summary
CITRUS CANKER TECHNICAL ADVISORY TASK FORCE (CCTATF) MEETING

November 16, 1999 9:30 AM

Florida Room

Nora Mayo Hall

Winter Haven, Florida

Members Present

Mr. John Barben (HCCGA)
Dr. Harold Browning (UF/IFAS)
Mr. Gregory Carlton (FCM)
Mr. Richard Gaskalla (FDACS/DPI)
Dr. Tim Gottwald (USDA/ARS)
Mr. George Hamner, Jr. (FCM)
Mr. Ellis Hunt, Jr. (Hunt Bros. Incorporated)

Mr. Tom Jerkins (Dole Citrus)
Mr. Calvin Lloyd (Gulf Citrus Growers)
Mr. Craig Meyer (FDACS) - Executive
Committee
Mr. Michael Hornyak (Alternate for Mike
Shannon-USDA)
Mr. Norman Todd (Florida Citrus
Production Managers Association)

Others Present

Ms. Rosemarie Alfaro (FDACS/DPI)
Ms. Lisa Backman (Polk County Farm
Bureau)
Mr. Ken Bailey (FDACS/DPI)
Ms. Wendy Bourland (FCM)
Mr. Doug Bournique (IRCL)
Mr. Dennis Broadway (HCCGA)
Mr. Mike Carlton (FCM)
Mr. Peter Chaires (FGFSA)
Ms. Liz Compton (FDACS)
Mr. Charles Counter (HCCGA)
Mr. Jaime Cubero (UF/CREC)
Mr. Gianni Dominguez (FDACS/CCEP)
Ms. Lisa Dunson (HCCGA)
Mr. Horace L. Durrance (Citrus Grower)
Mr. Wilbur H. Durrance (Citrus Grower)

Mr. William A. Durrance (Citrus Grower)
Dr. Jim Graham (UF/CREC)
Mr. Strick Gresham (FCPI)
Mr. Leon Hebb (FDACS/DPI)
Mr. Paul Hornby (USDA/APHIS/PPQ)
Mr. Richard Kinney (FCP)
Mr. Andy Laurent (FDACS/DF&V)
Mr. Andy LaVigne (FCM)
Mr. Jim McKee (FDACS/DPI)
Mr. Greg Nelson (DNE/IRCL)
Ms. Connie Riherd (FDACS/DPI)
Mrs. Florence Roberts (FDACS/DPI)
Dr. Xiaolan Sun (FDACS/DPI)
Mr. Jed Weeks (U.A.P. Florida,
Incorporated)
Mr. Alan Wrona (USDA/APHIS/PPQ)

CITRUS CANKER DECONTAMINATION INFORMATION/EDUCATION

Andy LaVigne reported that at the last Regulatory Issues Working Group meeting two weeks ago, they discussed citrus canker awareness in the grower community quite extensively and about how to raise that awareness. Ultimately, the grower has the most to risk - his land, trees, the potential to move those trees, the land to lay fallow for a few years, and lose that production. It was the consensus around the table, as they discussed mandatory regulations or how to go about raising that awareness, to develop an outreach program strictly targeted at the growers. They need to raise that awareness and get that information out to the growers to make them realize the people that are going in their groves for harvesting, hedging and topping, fertilizing, mowing, or pesticide application purposes, etc., and have that grower talking to the people performing these services and others. Also, they need to reach out to other people in the State that may have access to those groves, because they are in a regulatory capacity either with the

utility companies in the right-of-way, with the Department of Agriculture and Consumer Services, Department of Citrus, Fish and Game, or Water Management District who can potentially also spread the disease with the activities that they have in the groves. Florida Citrus Mutual pulled together some information with Wendy Bourland and Lisa Backman trying to do a proposed outreach program to growers to raise that awareness over the next two to three months regarding what is going on out there with citrus canker and what they can do to ensure as much as possible that canker will not get into their groves.

Wendy Bourland made a slide presentation and advised that everyone will agree with her that something has to be done to raise the awareness of the citrus canker problem in the State. This is a proposed plan to inform and educate citrus growers and individuals working in or having access to groves about the danger of citrus canker. They are suggesting at this point an all-out informational campaign (blitz) which will include articles to run in their trade publications, Mutual's Triangle Newsletter, and all the different citrus trade associations newsletters, magazines (i.e., Citrus Industry, Citrus and Vegetable magazine, and others), fliers, posters (to be placed in crew buses), direct mail inserts, brochures, and overhead and video presentations. Wendy mentioned that there are a number of parties within the industry (growers and all their employees, handlers, processors, packers, governmental agencies, Water Management District, utility companies, Game and Fresh Water Fish Commission, and other regulatory groups) anybody who has access, basically, to a citrus grove in any professional manner. Wendy said it was pretty obvious WHY the need for immediate awareness is so important and that is to try and keep it from spreading throughout the State. Citrus canker is in Dade, Broward, Manatee, Collier, Hendry, and now Hillsborough Counties. You can't eradicate citrus canker if it keeps spreading. Eradication is the goal! The most recent find is in Sun City. It is an invisible enemy - you can't see it, smell it, or feel it until it shows up on the trees, leaves and fruit. If the citrus industry is going not only to survive but prosper and profit, this has to be defeated because there doesn't seem to be a way around that. It is a threat that has to be conquered. One thing that everybody has learned over time is that you have to educate people before you can go on their properties to eradicate the canker which is to push trees and destroy them to protect other trees. You have to inform citrus workers all the way down to the grove level to the handlers and the pickers, to the people working in those groves, about the importance of decontamination. Crew bus posters are one way, video presentations all the way up to officials and managers in the different citrus and governmental agencies is the other end of the spectrum. Informed growers are going to be more accepting of these stepped-up eradication efforts that are going to be necessary to make this plan work. Whether you have citrus canker in your own grove; whether its 100 miles or 500 miles away, it is going to affect you in one way or another. Eradication has to involve everybody and we have to show everybody in the industry that it is their problem, but not everybody throughout the industry agrees or accepts that. In doing some research for the presentation, Wendy said she had found that citrus canker had been eradicated three different times in the history of citrus in this century. Obviously, it is not going to go away just by the declaration that it has been eradicated, because it keeps coming back. Apathy in the industry (and the public, too, which is a whole different issue) has pushed citrus canker on the back burner, especially for people in the public relations side of citrus, who are dealing with reporters

when things are hot and there are outbreaks. When something hits the media, all of a sudden you are having to deal with it as a crisis, and this is a proposed plan to try and get a handle on it before it becomes a crisis again. Smaller growers and growers in "clean" areas or uncontaminated areas don't feel the need to decontaminate because a lot of people don't think canker is going to happen to them, but it can. If we don't do something, it will. **BE AFRAID, BE VERY AFRAID - GROWERS NEED TO BE SCARED!! THEY NEED TO BE CONCERNED!!** Sheer panic and terror, no, but concern and action, yes. Key areas and the people that would be responsible for the public awareness campaign proposal: Wendy Bourland advised that she would handle news releases to State media to inform them of their grower awareness plan and eradication efforts, including giving them grove tours where appropriate, do news releases and visit some of the larger newspapers especially. She will write an overview article, including grower reaction to citrus canker for the Triangle and Citrus Industry magazines. Dr. Harold Browning is going to produce FACT Sheets; and Dr. Lewandowski is going to do an overhead presentation for the extension agencies, Statewide. Thanks to both of them for their contributions. Lisa Backman, Polk County Farm Bureau, who is still working on this committee, is going to do an article on decontamination of citrus equipment and workers clothing for the State publication that Wendy is working on. The video is currently in production by FDACS/DPI, and Wendy is going to talk to the Department of Citrus about possibly adding that footage into some of their own training. A direct mail out of an informational notice that would fit into a standard envelope is also being considered. Another possibility is a road-show presentation such as her presentation today, directed to growers to be presented in four points in the State to try and reach as many growers as possible - Lake Alfred, Fort Pierce, Sebring, and Immokalee.

Andy LaVigne further elaborated on the different methods they plan to use and people they plan to work with to carry out the citrus canker awareness blitz. They will be working closely with Commissioner Crawford's office to carry out this plan over the next three months.

Richard Gaskalla said they could do another round of Canker 101 sessions again. They had some decontamination information in there last time but it wasn't a point of emphasis and they could rearrange that and make decontamination the main issue.

Comment: **Andy** also said they included getting a list of harvesters and handlers that are licensed, also licensed restricted use pesticide applicators, etc. - anybody that is licensed that is working in the citrus producing counties and they will be sent invitations to attend these meetings, also lawn care maintenance people who have licenses to apply pesticide in the urban communities, and other entities, to try to get information into their newsletters about canker awareness.

Richard Kinney commented that when they first realized that they had citrus canker and it was in Broward and Dade Counties and maybe a couple of other areas, we talked about eradication being of paramount importance and secondly to protect our export markets because citrus canker being spread could certainly limit the access we have to current markets and towards that end,

especially in light of the situation in Sun City. We don't want to lose sight of being able to certify areas capable of shipping fruit to certain markets that might be affected by citrus canker. Perhaps we need to look at that as an industry and certainly from the regulatory community. We talk about canker-free zones and we have limited resources and limited number of personnel, but what triggers a Federal quarantine and what triggers actionable regulations for prohibition to certain markets. We need to start looking at that and make sure that we don't lose a market if, indeed, the canker spreads further out than where it is right now.

Richard Gaskalla answered that the Regulatory Issues Working Group maybe should look at that issue from a to z and look at the difference in areas to determine how the quarantine would be promulgated and what the guidelines might be. **Richard** said the DPI and USDA can study that and develop some kind of issue paper.

PROGRAM UPDATES

Dade/Broward Counties

Mike Hornyak (sitting in for Mike Shannon) reported that they are making significant progress in building the infrastructure they need to get the program up and running, particularly in the Dade/Broward area where they have been instrumental in leasing several new office locations which are going to provide them with the space to hire the people into. Three different properties have been leased this last month - two in Miami and one in Fort Pierce, which Leon Hebb will use for the Statewide survey. As far as USDA personnel, they have made most of their selections and they have started to report for duty (Mike introduced Allen Roner who is the new USDA supervisor for the Immokalee work unit). As some of the new people have come on in Dade and Broward, they were able to enhance the regulatory side of the program there. Most of the new officers, as they report, will be assigned to regulatory work so they can begin to pay more attention to some of the businesses in that area, particularly lawn care services. The regulatory side has been bogged down for so long by the delivery of the immediate final orders (IFOs) that they have not been able to pay the attention that they need to these kind of companies. Not too long ago at a program meeting, it was recommended that we use a delivery service for the delivery of the IFOs rather than having personnel making repeated visits to these home owners trying to contact them and make arrangements to deal with dogs, locked gates, etc. We could instead hire private delivery companies such as United Parcel Service, Federal Express, etc. which would free up both USDA and State personnel to perform functions that are more important. It turns out that it would be extremely inexpensive to use these services, so there is a contract being considered in Tallahassee currently which will free up our regulatory people and actually get back on track in terms of the regulatory program. Also in October, the USDA published an interim change to the citrus canker regulations which will now allow fruit produced outside of the citrus canker quarantine areas to move inside the quarantine areas for packing and as long as it is handled in accordance with the regulations (i.e., segregation and disinfections of the equipment), it can be sold as though it were packed outside the quarantine area which means it can be sold in Florida and other citrus producing states which is a very significant change in the regulations and will remove the burden that the packing houses have been under. It is an interim rule and is open to public comment and as soon as that comment

period is closed, the USDA will be addressing those comments, and hope to be publishing this final rule without significant change. The USDA is beginning to believe, as everyone is, that they are going to have to take a more aggressive approach to the Citrus Canker Eradication Program (CCEP), because Mike says that everyone is all a little bit frustrated with the way that this program is going. They don't believe it is anybody's fault, but just a combination of issues and when they are faced with issues like Hurricane Irene, which is a worse-case scenario, blowing south to north and the winds blowing that inoculum through Dade and Broward Counties, a much more aggressive approach must be taken (i.e., expanded cutting distances for the affected citrus trees.) The USDA strongly supports this and they are hoping to get to that heavy level that it needs to come from to make this happen. They want to see this program work but if it continues like it is, it is not going to happen.

NOTE: There was a discussion regarding the time frame between when a tree is detected with citrus canker and when it is cut in South Florida. Ken Bailey said it ranges anywhere to immediately after the waiver has been signed to as much as 90 days depending on the activities required (i.e., if you need police action, etc.), but probably on an average of 60 to 90 days, which includes removal of the 125 feet. They are shooting for two weeks. Problems that are encountered with the control process were discussed and ideas as to how to speed up this process were also discussed.

Shade Dade Program

The current status of the Shade Dade Program was discussed. (Craig Meyer had also explained this issue in detail at the previous CCTATF meeting on October 19, as reported in the minutes of that meeting.)

Manatee and South Hillsborough

Leon Hebb reported that last Tuesday, a USDA trapper working in the Sun City Center area, between the Ruskin and Wimauma areas, detected suspicious symptoms in a dooryard in which he was putting a trap. He reported this to Maurice Duffle and Maurice checked out the tree the next day and brought samples back to the office in Palmetto. Immediately the Palmetto work unit sent additional people out to scout the area. They took samples from all the nine trees in the property - showing symptoms were four white grapefruit, one Parson Brown, one unknown sweet orange, one sour orange, and a Minneola tangelo. A single tangerine growing right in the middle of the single row is not showing symptoms at all. The trees seemed to have been planted sometime between 1986-1989 and had trunk calibers roughly seven to eight inches. From photographs that Leon saw, they were fairly healthy for dooryard trees, but he was surprised at the amount of disease showing in both fruit and foliage. They have not had a pathologist visit the property, but based on the samples that were hand-carried to Gainesville on Thursday, pathologists were able to determine very quickly just from observing the symptoms that it is definitely Asian strain citrus canker. Those trees were removed from the properties and burned on Saturday and Sunday. Delimiting surveys being conducted approximately a mile and a half away from the infected properties have not detected any more canker and it has been determined that there are approximately 600 commercial citrus acres within a 125 square mile area. While this is good, there must be 10,000 residential properties in Sun City Center as it is a very large

area, well kept with lots of dooryard citrus plants, and a lot of people to deal with as far as inspecting properties. This compares with some of the areas in Miami. They are still trying to assess what the workload is going to be there. It is going to change the picture of our personnel requirements.

Question: Someone asked if they have any idea of how that canker got in there?

Leon Hebb answered that they assume it has been spread by some lawn care business, but they do not have a definite track on that and another thing they are doing as a precaution is they are following the trap lines in both directions, checking all the other properties that have been tended by the trapper to make sure nothing came through that property through trapping activities. The infected property is about seven miles from the quarantine area from the south Hillsborough County line. The delimiting survey is still underway and they will be going about five miles in all directions.

Question: What is going to be your proposal on the quarantine area?

Leon Hebb said they will just wait and see what happens as to detection of further disease.

Question: When will you know where this canker came from, if it is the Miami strain, or where ever it came from?

Leon Hebb answered it would take about 45 days or so.

Richard Gaskalla said if they don't find any more disease in that area, they may not quarantine anything - they will just have to take it a step at a time. If it is confined to only six trees, they can consider it a regulatory incident.

Immokalee Area

Leon Hebb reported that most of the control work has been completed in the Consolidated Grove now and there are contracts out to remove approximately 42 to 43 acres in Siboney. The original contract had to be increased since the bids were requested because additional trees were found in the interim.

Dade and Broward Counties

Ken Bailey reported that they have taken control action in Broward and Dade Counties on 77,000 plus properties where they have actually destroyed trees and 166,600 plus trees have been destroyed. They are not receiving as much resistance from people as they had previously experienced; however, there are still home owners who are not cooperative and causing trouble.

RESEARCH UPDATES

Tim Gottwald said he wanted to talk informally and would like to have interaction from the group along the way, so if anyone has any questions to ask them as he goes along. **Tim** will speak on weather events that have occurred in Miami and what they feel the effects from those

weather events will be. The second thing is that they have a model now for citrus canker disease increase, which is the first time they have had this tool. This will answer a lot of the questions that people have been asking (i.e., if you have so many trees and you have an event; you remove so many trees and then what is the outcome going to be?) **Tim** talked about the different hurricanes that have occurred this season (i.e., Floyd, Harvey, and Irene.) Hurricane Floyd skirted up the coast and **Tim** reported that he wanted to use that as an example of what is going on with a hurricane, because a lot of people ask him how he knows what winds are going on; how do you know what directions winds were blowing in Miami, etc? **Tim** explained that winds spin counterclockwise towards the eye so they always rotate back in towards the eye and the wind speed and gusts are most extreme at that eye's wall. Where you are, in relationship to a hurricane or tropical storm as it is passing by, depends on what kind of wind directions you are going to have and that helps them to make predictions as to what direction the disease is spreading.

Tim used a Power point program to explain the researcher's techniques in studying the storm tracks, analyzing the data, and making predictions as to results of the different hurricanes. **Tim** said that Hurricane Floyd passed at least a 100 miles off shore and is probably the least event that we have had. Hurricane Harvey probably is more important than Hurricane Floyd was. About September 21, they had about two inches of rain in Miami; maximum sustained winds were 50 miles per hour (MPH) at the eye and in Miami, it was about 41 MPH. Anything over 18 MPH gives a tremendous amount of infection and dissemination, if it is in combination with rain. Hurricane Harvey passed directly over the peninsular and, because it's path was so close and because of the wind directions, it affected all three areas - Immokalee, Palmetto, and Miami, so they can make some predictions in reference to Hurricane Harvey. Hurricane Harvey was a very good one for spreading citrus canker in Miami or Broward County and, unfortunately, it moved to the north, northwest, and southwest areas and would have affected Immokalee and Palmetto as well. Hurricane Irene, because of its storm track, was probably the worst storm for spreading the disease. This storm dumped 18 inches of rain in Miami, with 75 MPH winds and gusts up to 85 MPH. This was a real blower and is probably the one that is going to cause the most problems in the future. This is probably the worse scenario they have because of the track and is probably the most important spread up to Broward County. (**Tim** said he would gladly give his diagrams to any interested parties and he would certainly share with the CCEP group).

Tim further reported on the areas where they were studying citrus canker in the Miami area at the graces of the eradication program and **Tim** said the data have been collected by many people, including Dr. Sun. **Tim** advised that he has given them a lot of spread information such as the 1900 feet, that everyone is familiar with. However, one of the things that he has not talked much about is how the disease increases in this area due to the combination of wind and rain as to how it affects in order to make predictions. **Tim** said all he wanted to do was to introduce the model, but what they are doing is predicting the amount of disease by using some statistics and these are basically, the number of canker infected trees that were available a certain amount of days previous to the storm events, number of canker infected trees that are there right now, precipitation in inches, and the wind speed. If you know all those, you can take those figures and plug them in - it doesn't matter what software program you use, you will get the same results and

you don't have to know how the model works. This shows you the interactions between the two variables (i.e., rain and winds.) It is placed in a spreadsheet which makes it very easy. You enter the number of diseased trees you had, the inches of rain, the wind gusts that occurred in Miami and magically it pops up the number of new infections that can be expected and, thus, the total number of infected trees. It is very nice, because at any one time if you have an event, and then you have another event right after that, you can predict the total effect. **Tim** said this is just a study based on the information that they collected in Miami and should be a help to the eradication agency in being able to predict how you want to beef up your efforts based upon kinds of storms that occur. Conclusions are that in the urban Miami area, you can predict it; all you need to know are the number of existing trees, the amount of rain and the wind gusts. Hurricane Harvey, Floyd, and Irene events predicted by the model estimate about 3500 to 4000 trees and that is an under-estimate and also, this model is probably an under-estimate of the number of trees that are actually coming out. So, this is not good news but at least it gives a way of getting a handle on how many new infested trees are coming along so you can do some advanced planning when you have events like this coming along. It is meant to be a tool. (**Tim** gave a demonstration as to how the program works, explaining the spread sheet and keying in some figures as to the number of trees, precipitation amounts and wind speed.) He reiterated that it is just a tool; but it can give some idea of the storm effects. But, one of the things that is going to be very depressing when you work with this, but it is true, is how many trees you actually have to remove to make a big difference. **Tim** said he is going to make a plea and it is that going to 125 feet isn't going to do it, nor will 800 feet. If you want to have an effect, you will have to take much more out. Normal rain storm event can spread the disease 1900 feet.

Richard Gaskalla remarked that an important point which he explained at the last update that **Tim** gave them, is that once you go beyond 125 feet, it is important whether it is 1000 feet or 1900 feet, to get all those trees in that area at one time. You can't piece meal it because, if you do, you are just stringing it out. **Richard** also said if you go into a quarter section and remove all the trees, that is a quarter section that you don't have to go back into.

Tim Gottwald said that this allows them to see that. If you had 1000 trees and you got 500 of them out of there, but then you had another storm come along, you would see what the effect of leaving those 500 trees is - it is not good. It has to be a very rapid response.

Tim Gottwald said for those in the eradication program, if they want it, he would be happy to give a copy of the spread sheet to them for their use. **Tim** said he didn't want them to think that this is an end-all model; he will be improving it overtime, but presently, it gives us something to work with and the only thing he would caution them with right now is that it will probably under-predict.

Scientific Issues Working Group

Seed Fruit and Seed From a Quarantine Area

Tom Jerkins reported that the only issue from the previous CCTATF on October 19 was the question about nursery seed and he thinks **Richard Gaskalla** cleared it up.

Richard Gaskalla commented that the question was if fruit from the quarantine areas could be moved for the purpose of harvesting seed from the fruit. The answer is that fruit with the seed could be moved just like fruit for processing and it has to be under the same basic safeguards. There was a compliance agreement used in the last program that was specific for that issue and should someone wish to do this, they can move under the compliance agreement guidelines so it has been dealt with.

Chemical Control Research

Question: Would someone give an update on what efforts are being made to establish a spray that the growers could personally spray their groves with to protect it against citrus canker? Are there any chemical controls on the horizon that could be used for citrus canker?

Richard Gaskalla said there are some new compounds that are being looked at that tend to stimulate the plant's resistant to bacteria, but we are a long way from saying that we have a compound that we can use for citrus canker control, but it is a possibility. Another thing that looks pretty good long-term is breeding resistance in the trees for citrus canker. Work is being done and they are working on that at the university as well.

Harold Browning said that Jim Graham is testing some of those plant defense chemicals, but the problem with the chemical aspect is all you are doing is decontaminating the surface of the plant with the active bacteria there. You are not eliminating the infection that is down inside the tissues so it may really be helpful to slow down the spread by keeping the plant clean of external bacteria, but it is not going to cure the plant.

Jim Graham advised that they are testing a group of compounds of systemically activated resistance compounds. They are compounds that are having effects on various foliar diseases of citrus and other crops. Those effects are systemic so they are active from within rather than from without. They are not preventatives. They are chemicals that have the potential to provide some reduction in disease development after the bacterium gets past, for example, the layer of copper or the surface of the leaf so it is the second point of control that probably will not be in and of itself very great, but will complement the copper spray so they are optimistic that they have some effect. They are hoping that they can add two or three of the compounds together and maybe increase the resistance even more. We are talking about the future here - management with chemicals that will essentially slow down the epidemic, not stop it. Jim said these compounds are not highly toxic compounds; they are inorganic compounds so if found to be effective, the registration for use on citrus would pretty much be on a fast track of labels for the crop. All the companies they are working with are very optimistic. This research is continuing.

Further discussion ensued as to the potential for the compounds and how they can be used for future management of the disease.

Craig Meyer remarked that these compounds still may have some profound impact on the eradication program if they were a tool which would give us the ability to slow the infection in an urban area while resources in tracking, surveying and the legal steps we have to take before

we confiscate somebody's tree by removing it; the very things that are hindering us now, if we have a way to slow this down in that area with some degree of effectiveness, it will allow us to work with the backlog.

Grower Comment: In my personal opinion, if there is a limited amount of money, I would vote that the money be spent to develop that compound rather than to hire more regulatory agency personnel.

Tim Gottwald remarked that there are several research projects underway which are being funded by research dollars from USDA/APHIS. That is one of four that was funded this year and Jim and others are working very strongly in that area. It is not that throwing huge amounts of monies is going to make that much difference - there are not that many compounds out there.

Grower Comment: We could spray this whole State in ten days because we are set up to spray. I guess what I am saying is that the \$100 million you are going to spend someway, put the bulk of it towards something that we can actually see results. You need to start budgeting towards developing that compound.

George Hamner commented that initially every chemical company in the country was asked if there was any potential chemical on the horizon that they could sell to us and the chemical company said no with the exception of these things that have come up. The only thing that has come up since then is to burn trees and right now, he doesn't think that we should allow the Miami infection to just sit there while we are trying to develop chemicals. We better cut the trees and get moving on that.

More discussion.

Consensus is that although these compounds look very promising during the developmental stage and during the time that we could receive approval to use them in the field, we still need to be out there to get rid of this thing in the event these compounds turn out not to be effective, that would be grounds we would have lost.

Leon Hebb asked if these compounds had been effective in controlling any other diseases?

Jim Graham answered that these compounds came to them because they control things like bacterial spot in tomatoes and peppers in Florida and because of their success in controlling these other diseases. The compounds are not directly toxic to the bacterium - what they do is activate resistance in the host and enhance it. We have very low level of resistance in many of our varieties.

Craig Meyer stated in the next batch of citrus canker monies, there will be monies for another round of research - about \$700,000 was given to research out of the first batch and **Craig** said he would expect we will be given that same amount in the next batch so they are pursuing the research work. It is just that the response from the chemical companies that make these

compounds, as George Hamner pointed out, has been less than enthusiastic. We have offered them quite an inducement in terms of potential use and it doesn't seem to get a lot of attention, but we will continue to do as much research as we can for these chemicals. But, in addition, we are all in agreement, from the Commissioner's level on down, that we have got to continue this eradication effort even though it is very clear today that we are way behind on resources and we are going to have to gear up again faster which is going to be quite a job for us.

Richard Gaskalla commented that he doesn't even know if we need to add a bunch of people either. **Richard** thinks with the information we now have, we need to not spend quite as much time looking, but a lot more time cutting down trees so he thinks there is a good tradeoff here, particularly in south Florida, if you identify a diseased tree and you go out some prescribed distance, be it 1,000 feet or more, and mark it off and remove those trees, you don't have to go back into that area, so you are not going to have to use our survey resources to resurvey that area - you just need a core group to go out and find a tree, mark it off, and destroy it and move on to the next area, and do it in a systematic way, so we might not need to add a great deal of additional resources over and above what we have - we just need to change the direction of the program. Personally, it frightens me to think I am going to have to manage 2,000 temporary employees in south Florida. If there is a better way to get the job done that is more efficient, that is the direction we should go.

Craig Meyer thinks the Feds are driving us in that direction, and it is exactly what **Richard** has been saying, by virtue of the fact that we now have a scientific basis to justify going out beyond 125 feet so we are just waiting on the right moment here within the next week or so to announce and implement that and we do get a big gain from that. Once we get the cutting done in that area, it is a three-quarters of a mile area that we never have to look at again except the periodic annual drive-by and pick up of a citrus tree if replanted and the sprout issue we will need to deal with. By extending the eradication area, we will reduce the survey need.

Regulatory Issues Working Group

Disinfection in Non-quarantine Areas

George Hamner advised that the Regulatory Issues Working Group was asked to look at the possibility of placing across the State, rules and regulations on decontamination. They had a meeting about this two weeks ago and no conclusion has been reached except that of all the entities in the State, we looked at the highest risk involved with spread of disease and the two areas they highlighted the most are harvesting and production practices. The big question that we cannot come to terms with yet is whether we are going to go to compliance agreement or decontamination in all areas, both of which require resources and agreement in the citrus industry. **Connie Riherd** wrote tentative compliance agreements that affect the grove personnel, harvesting, and packing houses, tying everybody together and obviously from the brief discussion this morning, we will need to go to a work shop with the industry group and for the most part, the only thing that people would like to see done right now is the harvesting crews in some fashion. I think we will see harvesting and production but am not sure if we will see any more than that, but there will have to be a work shop to make that decisions. The first consensus is whether or not we can "public relations" our way out of this and inform people. There is a

pretty big split between the industry as to whether we need to regulate or continually pound awareness and scare the growers into doing what they should do. When we talk about regulating, it is nothing more than common-sense practices for every grower across the State, but if they are not decontaminating then we maybe need to have compliance agreements in place and that is what the work shop is going to look at.

Harold Browning stated at the meeting two weeks ago, it was real clear that a lot of growers are already doing the things that we know should be done. The problem is that there is a large body of people out there, for various reasons, that aren't doing it. So, it is not a matter of trying to figure out what to do, it is a matter of trying to figure out how to get people to want to participate.

George Hamner said the Indian River Citrus League unanimously voted that the scientists be requested to outline the necessary steps to eradicate citrus canker and then incorporate them into compliance agreements for all aspects of the industry so the league is now figuring that if the scientists say "do it", we should make compliance agreements for them. The big question, myself, is how far do we go with the compliance agreements? Connie Riherd and I will work on this.

Connie Riherd advised that she will continue to work on the compliance agreements as it was a pretty quick effort to get those together at the last minute. Connie said she will develop them further.

Craig Meyer mentioned that we probably need a toll-free number to answer some of the pertinent inquiries so that the growers can reach the citrus canker administrators quickly.

Comment: It is beyond him why the growers in the state are not paranoid to follow good sanitation practices to do this on their own. It is not rocket science. They should know who is in their groves, the decontamination practice only takes a little time and effort.

Grower Comment: He would like to say, for the good of the order, that a lot of the growers have addressed the fact that they need a spray to help, etc. There is a lot of interest in it, but he feels they can rest assured that if there was some promising avenue of research that Harold Browning knew about, he would be standing on the table and stomping his feet and asking for money, and the same goes for the USDA, and the same thing is true of other independent scientists around. They know the money is here and they know there is a desire to get this done, so he thinks we can rest assured, research wise, that we are up-to-date on what is going on.

Harold Browning commented that it might be worth pointing out that if Laurene Levy was here with the USDA/APHIS, she is part of the group that is administering that research program, and fairly soon there will be a call for the next set of proposals for this next year. There are several ideas that were not funded in the first round, but probably will be including the DOC has agreed to do some tests in collaboration with DPI on fruit treatment to find out if it came to it, is there a way, using the conventional materials that we have, to guarantee that fruit had no active citrus

canker on them, so that, and several other ideas are out there. There is a new scientist at UF that has worked with bacterial resistance in rice and we may have an opportunity to take those genes and try to put them in citrus which is a longer term thing, but there are some other ideas out there.

Jim Graham said he would like to offer the model that Brazil is following right now and to think about and ponder it as a whole. In Brazil, in certain parts, they live with citrus canker and part of living with it, when you are in a cooperative of growers, is being educated time and time again about the value of preventing the introduction of citrus canker into their groves. What goes along with that are all the things we are talking about here. There is no magic bullet or simpler or more straightforward way of doing this other than to monitor who comes in and out of your grove and to spray them off, etc. It is no different than it is here in our protocol and that they really take this very seriously and they are very successful at maintaining their groves free of citrus canker despite the fact that it is endemic in the State. They maintain areas free of citrus canker for many years. **Jim** said he thinks we all should consider that we are under siege by citrus canker in our operations and do everything we can as individual owners, etc., to keep citrus canker out of our groves. That is the level you need to really focus on here and not try to rely on something like a compound that will come along and have a level of activity that we would all love to see. That is just not in the offering right now. We are working with Brazil in testing these compounds and if we find something really promising, we take it down there and they will spray it in trials down there so we have a really nice pipeline there and because of their situation down there where citrus canker is endemic, so we can get as quick an answer as possible to do something down there that we can't do here in Florida which is testing chemicals in the field. **Jim** says he just offers that situation that has been going on for decades. We can prepare ourselves and successfully do this because they have done it elsewhere.

Meeting Adjourned at 12:00 noon.

The next meeting is tentatively targeted for sometime in January 2000.