Short Note 1.3

Risk Assessment Group and Task Force

The Citrus Canker Risk Assessment Group (CCRAG) and the Citrus Canker Technical Advisory Task Force (CCTATF) were two groups instrumental in recommending policies governing the CCEP. For brevity, these groups will be referred to as the Risk Assessment Group (RA) and Task Force. The objectives of these two groups are different as discussed in this short note. This note supplements discussion of the meetings as presented in Chapters 1 and 9 of my book.

Chapter 9 presents a new history of the origins of the 1900-ft program with numerous references to the Task Force Meeting minutes. It is the contention in the book that the 1900-ft rule was not decided upon in a single, ad hoc meeting convened in Orlando, Florida in December 1998 by Dr. Gottwald. Instead, the policy likely evolved through series of discussions in both public and private meetings through 1999. It is also suggested that the 1900-ft rule was not strictly a technical decision, but rather considered a expeditious means of completing the program as discussed in the Task Force meetings.

1. Risk Assessment Group

The Department has not made public many details on this group, such as when this group was organized, its responsibilities, and its membership. However, the article by Schubert et al, [1] identifies risk assessment as part of the overall eradication program. The objectives of the program as stated in this short note were inferred by a review of risk assessment reports. Reports from 1998 to 1999 were provided by the Department.

The RA Group was composed of 7 members, all of whom had extensive experience in citrus canker and were very involved in the efforts of the CCEP. The members of the group were in 1999: Drs. Schubert, Miller, Dixon and Mr. Hebb from FDACS/DPI, Dr. Gottwald from the USDA/ARS, Dr. Graham from UF/IFAS and Dr. Poe from USDA/APHIS/ PPQ. Dr. Sun, FDACS/DPI was also a member, possibly replacing Dr. Miller. The positions of these members within their organizations are provided in Chapter 1. The majority of members were from FDACS, so it is unlikely that any report issued by the group, would not first be reviewed by Mr. Gaskalla, the Director of FDACS/DPI and have his approval.

The RA Group recommended exceptions to the eradication policy for grove owners. These recommendations would be made on a case-by-case basis following discoveries in their groves. The exceptions would be decided by the group after review of risk factors involved in the discovery. In the reports obtained from the Department, decisions were unanimous.

The RA reports are not the same as minutes, as they do not include the back and forth comments made by attendees. The RA reports may not reflect conclusions/ recommendations reached at the meeting, but at some time later.

- Laboratory Testing of Samples

On March 4, 1999, in Report RA-5 for Collier and Hendry counties, the RA Group added a recommended practice limited to only the Miami-Dade CCEP as follows:

> The sending of suspected citrus canker samples out for the purpose of a second opinion by other parties is deemed unnecessary, presents an unacceptable biological risk of spreading citrus canker and is highly discouraged. The policies and procedures used by the department to diagnose citrus canker are scientifically proper and accurate. Routine approval of second opinions of citrus canker field diagnoses are no longer standard procedure.

The above recommendation is strongly worded as a set policy, and appears FDACS/DPI was allowing the Risk Assessment Group in fact, make policy. Inadequate testing for citrus canker would ultimately become a legal issue as detailed in Chapter 5 - Legal Challenges. The advantage of a second opinion, is that if it concurred with the Department's analysis, the testing would demonstrate the accuracy of the Department's laboratory in Gainesville, FL. However, second opinions could also provide further evidence of inadequate testing if the opinion was a negative finding.

- Recommendations related to 1900-ft policy for Residential Areas

The RA Group also provided recommendations on eradication policy for the Miami-Dade and Broward counties, as provided in Risk Assessment #9 or CCRAG-9, based on the May 11, 1999 meeting. Besides the 7 members of the RA Group, there were 12 other participants, as listed on the report. The meeting was attended by officials actively running the CCEP Program in Miami-Dade and Broward counties, and citrus industry representatives. A press reporter, Mr. Paul Power, from the Lakeland Ledger was also in attendance.

The group recommended the 1900-ft rule be implemented for Miami-Dade and Broward counties beginning in Broward County as follows:

> 1. Exposed trees should be removed from any property to a radius of 1900 feet from a positive citrus canker-infected tree.
>
> Motion: Dr. Steve Poe Second: Dr. Jim Graham Vote: Approved unanimously
>
> 2. The 1900-foot radius for removal of exposed trees should initially be implemented in all positive sections in Broward Co., and proceed southwards as well as all positive sections in southern Dade Co. and proceeding northward. Control action for positive and exposed trees in the interior portions of the regulated area will consist of positive and exposed trees from the positive property and include all exposed citrus trees initially to a radius of 125 feet but should expand to 1900 feet from the positive tree as control action resources become available. Other program actions shall be in accordance with procedures as defined in the Citrus Canker Strategic Plan.
>
> Motion: Dr. Wayne Dixon Second: Mr. Leon Hebb Vote: Approved unanimously

The report is strictly related to the Broward and Miami-Dade counties. It does not state if these recommendations should extend to the commercial groves in Miami-Dade County (~ 4 square miles).

The RA-9 report states that at the beginning of the eradication program, this group met, and issued a report recommending on October 25, 1995 recommending all stripping off all foliage (hatracking) off trees within 125-ft of an infected tree, as follows:

> Since the detection of Asian citrus canker in Westchester (Miami area) on 28 September 1995, the Citrus Canker Eradication Program has faced a significant challenge of eradicating citrus canker. The first risk assessment ("RA-1, Miami, Florida; "Citrus Canker Risk Assessment Group Report, 10/25/95)" recommended as an option the complete removal of all infected hosts plants (disease positive) and buckhorning of all host plants within 125 feet of infected trees (disease-exposed from the incipient *[within]* 14 miles^2 of citrus infection, the CCEP adopted this recommendation.

A request for the RA-1 report of October 25, 1995 was made to the Department. The Department responded that they were unable to locate it. Thus, there are no known reports from the RAG from the discovery of citrus canker on September 28, 1995 until the RA-9 Meeting on May 11, 1999, related to residential areas eradications, except the one brief comment that outside laboratory testing should not be allowed. It is also noted that risk assessment reviews were always considered impractical for homeowners.

The agenda states that a review of the 125 ft policy will be discussed first by Dr. Graham followed by "Review Final Analysis of the GPS Epidemiology Study" as presented by Drs. Gottwald and Sun." The Department in later communication insists that this was not a final analysis. This summary attempts to follow the items on the agenda, rather than the sequence in the report, although it is uncertain what was said in each presentation.

The 125-ft was considered ineffective as follow:

> An ongoing analysis of property and tree data from CCEP suggested that buckhorning or complete removal of exposed trees within a 125-foot radius from a positive tree was insufficient to reduce the incidences of subsequently infected trees. In effect, re-survey efforts kept detecting a substantial number of newly infected trees in older and newer canker-infested areas. In 'core' areas as many as 14 re-surveys have been conducted and infected trees are still encountered. In Florida, Argentina and Uruguay, published studies made in commercial citrus groves further substantiate the long distance spread of citrus from focal trees and the inability of 125 ft (or 30 meters) to adequately removal of subsequently infected trees.

There was never a report made public by the Department, providing a full assessment of the 125-ft policy, detailing the complications of residential backyard inspections. However, as discussed in Chapter 1, and clearly explained by Dr. Bergamin-Filho, an expert epidemiologist in citrus canker from Brazil, even in commercial citrus groves, additional inspections by different teams of inspectors, increase the number of discoveries as symptoms of canker is often difficult to detect (International Citrus Canker Research Workshop, June 21, 2000, page 319).

It is noted that the Task Force was actively considering an approach to eradication using a radius of less than 1900-ft coupled with more frequent inspections. This alternative approach was identified by Gottwald et al, in the April 2002 article. [2] The use of more frequent inspections was strongly rejected as follow:

> The CCEP attempts to utilize a 45-60 day inspection cycle to resurvey trees. Generally, control action is implemented within 14 days of a diagnosis of citrus canker for a tree. The Citrus Canker Risk Assessment Group concurs with using a 45-60 survey cycle within a 10-14 days of positive diagnosis. A shorter cycle of re-inspection is biologically ineffective and a wasteful of program resources since field detection of new disease can not occur before 45 days after onset of infection.

Interesting, this excerpt avoids facts, and instead substitutes goals, when they had full access to the CCEP database. How many days were trees removed following a diagnosis of citrus canker? In a limited sample of 30 residential lots, the time from final diagnosis to removal was always greater than 14 days. Re-inspections of the same area occurred anywhere from 6 months to two years.

According to the agenda, Dr. Gottwald's presentation was next, where he states from a study of nearly 15,000 citrus trees, the distance of 1900-ft results in a a 95% level of capture. The footnote of the abstract to be published, might give the impression that a full research report is to be published. Instead, this is a short abstract for a paper to be presented at the Annual American Phytopathology Society Conference in August 1999, with no more details than given in the seven sentences in the RA-9 report.

A table of results is attached to the report, with the footnote, "Recalc 5/26/99, T.R. Gottwald" , so in truth, there is not real record field results as presented at this meeting.

- Lakeland Ledger Reporting of the May 11, 1999 Meeting

"Canker Task Force is Girding for Backlash" was a story appearing on May 12, 1999, by Lakeland Ledger reporting Paul Power. Mr. Paul Power, Jr. is listed at a reporter from the Lakeland Ledger who attended the meeting. An article appeared the following day, May 12, 1999. Reporter Kevin Bouffard, who covers the citrus industry for the Lakeland Ledger, was kind enough to search internet archives and find the story.

Mr. Power reported that a study conducted by Dr. Gottwald showed the 125-ft radius eliminated less than 20% of the citrus canker that would eventually be found in the state. He also states, "One proposal would essentially clear cut that area *[Miami-Dade and Broward counties*] of citrus trees." He also reports, "Final recommendations on the size of citrus killing zones are expected to be in thousands of feet- not hundreds." However, he does not report any vote by the group, nor presentation of field study results.

Paul Power talked to key figures, Mr. Gaskalla, Dr. Gottwald, and Mr. Andy LaVigne, VP of Florida Citrus Mutual. He reported:

> The citrus industry has the most to gain from the new assault on Florida homeowners' yards. Officially, groups such as Lakeland-based Florida Citrus Mutual are neutral on how widespread an expansion should be. The group will follow the scientific recommendations, said Andy LaVigne, the group's executive vice president.

Florida Citrus Mutual and other citrus industry groups were obviously more concerned with canker as it related to programs within the groves. This meeting was just concerning an expansion of radius for residential eradications and that the Department had to be ready for some pushback from residents.

Paul Power apparently thought he was attending a science group meeting, a subcommittee of the Task Force. Was he confused? The whole matter is odd when one considers all of the 19 participants assembled for a meeting in Orlando, FL then three days later.

- White Paper produced by Risk Assessment Group

A draft copy of a white paper entitled, "Bacterial Citrus Canker and the Commercial Movement of Fresh Citrus Fruit" was issued on July 14, 1999. It concludes that fruit which is properly processed from areas where canker is found, posses nearly no risk to initiating new incidences of citrus canker.

2. Citrus Canker Technical Advisory Task Force

The Task Force was announced by the Commissioner on February 12, 1999 with the purpose to make recommendations "to rid Florida of canker and on the critical question of how to fund those plans." These recommendations would be made to Florida Legislature, according to the press release of February 12, 1999.

It is possible that an inner circle of citrus canker experts and officials in both FDACS and the USDA had already agreed upon the 1900-ft radius as their preferred radius prior to the formation of the Task Force on February 12, 1999, at least for the residential lots. The inner circle would be the same as the RA Group, Drs. Gottwald, Graham, Poe, Dixon, Schubert, Sun and Mr. Hebb. It would also likely include Mr. Richard Gaskalla, Director of the Department of Plant Industry, FDACS.

The true purpose of the Task Force from the Department's perspective was the acceptance of citrus industry for the 1900-ft rule. The Department normally considers the opinion of the citrus industry, though citrus industry associations prior to new regulations. The Task Force reviewed many other issues related to grove owners concerns, such as movement of fresh fruit from quarantined areas.

In reality, these recommendations would be reviewed by FDACS prior to any formal recommendation to the legislature. While a specific recommendations were approved by the Task Force to increase the cutting radius to 1900-ft along with a risk assessment review policy, there was no discussion, within the minutes of the 1999 meetings on how to fund the expanded program. There were comments made prior to the meetings that the added expense of cutting would be offset by the need of more inspectors. In fact, Mr. Gaskalla remarked that this appeared to be the case at the April 11, 2000 meeting.

The Task Force was heavily weighted towards citrus industry groups, including Florida Citrus Mutual, Indian River Citrus League (IRCL) and the Highland County Citrus Growers Association. The Task Force included the Indian River Exchange Packers Association (IR and other packinghouse associations representing companies involved in fresh fruit processing, packing and shipping. A quarantine of fresh fruit from the groves would directly impact their US and international shipments.

It is noted that the only citrus canker plant pathology researchers on the Task Force were Drs. Gottwald, Pete Timmer, and Jonathan Crane. The affiliated organizations of these researcher are provided in Table 1. Dr. Crane did not participate in any of the meeting in 1999. However, the meetings were attended by as many as 40 non-members with other scientists from University of Florida/ IFAS, FDACS/ DPI and USDA-APHIS. Dr. Gottwald appears to be the only researcher attending from the USDA-ARS.

As discussed in Chapter 1, in addition to the General Task Force, a series of Working Groups were formed: Public Relations/ Education Issues, Regulatory Issues, Science and the Citizens Issues Working Group. The dates and minutes of these meetings have not been released by FDACS.

Table 1: Members of the Citrus Canker Advisory Task Force as of February 12, 1999

Executive Committee FDACS: Deputy Commissioner Craig Meyer Tallahassee, Florida	Executive Committee Florida Citrus Industry: Mr. Andy LaVigne Florida Citrus Mutual Lakeland, Florida 33802
Executive Committee Mr. Mike Shannon State Health Plant Director USDA/APHIS Gainesville, Florida 32605-3147	FDACS-DPI: Mr. Richard Gaskalla/ Ms. Connie Riherd (Alternate) Division of Plant Industry/ Same Gainesville, Florida 32614-7100
USDA/Ag Research Service: Dr. Tim Gottwald Research Plant Pathologist Orlando, Florida 32803-1419	UF/IFAS: Dr. Harold Browning/ Dr. Pete Timmer (Alternate) Professor & Center Director Professor of Plant Pathology Entomology and Nematology SAME Lake Alfred, Florida 33850-2299
Dade County/ Agriculture Industry: Dr. Jonathan Crane Mr. Mike Hunt (Alternate) Tropical Research/ Brooks Tropicals Homestead, Florida 33031	Florida Citrus Mutual: Mr. Gregory A. Carlton, Mr. J.Brantley Schirard, Jr. (Alternate) Southern Garden Citrus/ Schirard Citrus, Inc. Clewiston, Florida 33440/ Fort Pierce, Florida 34954
Florida Citrus Packers: Mr. G. Ellis Hunt, Jr. Mr. John A. Scotto (Alternate) Hunt Brothers Cooperative Tuxedo Fruit Company Lake Wales, Florida 33859 Ft. Pierce, Florida 34954	Florida Citrus Processors Assn: Mr. Hugh English A. Duda & Sons, Inc./Citrus Belle LaBelle, Florida 33975-0788
Gulf Citrus Growers Association: Mr. Calvin Lloyd/ Mr. Tom Jones (Alternate) Cooperative Producers, Inc. Barron Collier Company Immokalee, Florida 34143 Immokalee, Florida 34142	Highlands County Citrus Growers Association: Mr. John Barben Mr. Edward Smoak (Alternate) Barben Groves, Inc. Smoak Groves Avon Park, Florida 33825/ Lake Placid, Florida 33852
Indian River Citrus League: Mr. George F. Hamner, Jr. /Mr. Daniel R. Richey (Alternate) Indian River Exchange Packers/ Indian River Citrus League Vero Beach, Florida 32968 Vero Beach, Florida 32961	Peace River Valley Citrus Growers Association: Mr. Tony Bowen/ Mr. Michael (Mike) Edwards (Alt.) B&J Citrus Groves, Inc./ Manatee River Groves, Inc. Palmetto, Florida 34221 Bradenton, Florida 34206-9829

3. Task Force Meetings Summary

Copies of minutes from May 14, 1999 to April 11, 2000 were obtained from FDACS. The minutes of the meetings provide more information on who actually attended the meetings. Deputy Commissioner Craig Meyer and FDACS/DPI Director Richard Gaskalla attended all meetings.

In general, the meetings were attended by approximately 12 voting members and approximately 40- 50 non voting attendees. Among the non-voting attendees were many key scientists or administrators within the eradication program including:.

1. Mr. Kenneth Bailey - FDACS/DPI and director of the CCEP in Miami-Dade and Broward Counties
2. Dr. Wayne Dixon- FDACS/DPI, Chief Plant Pathologist
3. Dr. Jim Graham - UF/IFAS CREC
4. Ms. Laurene Levy - USDA-APHIS, PPQ
5. Dr. Tim Schubert - FDACS/DPI

Moratorium was still in effect for Miami-Dade and Broward counties at the time of the meeting. On May 11, 1999, the RAG meeting had concluded to recommend the 1900-ft policy for residential areas of Miami-Dade and Broward counties. All prior RA reports made public by the Department, had considered exceptions to groves in removal of their exposed trees.

Mr. Ken Bailey, CCEP Director for Miami-Dade and Broward counties reports no new positive sections in 2 ½ months. Craig Meyers indicates that the "target trees" is 1.5 million trees in Miami-Dade and Broward counties, which are presumably the exposed and infected trees under a 1900-ft rule. Dr. Gottwald gives a more condensed version of his May 11, 1999 presentation on the field study. While the minutes are detailed on other topics, they include no information on his presentation. A single page attachment of Site 1 results is provided.

At least one industry representative, Jim Griffiths (Citrus Growers Associates), sensed that the Department was attempting to an overly optimistic spin on the outcome of an eradication program:

> Jim Griffiths told Craig (Deputy Commissioner Craig Meyer) that you can't claim that you have eradicated it anywhere yet; not in the last ten years, you haven't or you wouldn't be fighting a campaign in Manatee County today."

May 14, 1999 — Dr. Gottwald makes a presentation to the Task Force, similar to the one made on May 11, 1999. Unlike the May 11, 1999 RAG meeting, there is no recommendation on a new radius. Further, there is no mention within the minutes that RAG voted on any change to the radius.

June 22, 1999 — includes comment by Craig Meyers that Dr. Gottwald was able to catch citrus canker bacteria in the vicinity of a chipper using air samplers. Mr. Meyers said program critics are likely to use this as "ammunition." It is strange there is no comment by Dr. Gottwald in minutes on his research. Considerable discussion on movement of fruit in quarantine areas.

July 16, 1999 — A critical meeting as members are asked to approve a recommendation to implement 1900-ft rule with risk assessment was approved by the Task Force.

November 16, 1999 — Dr. Gottwald makes a presentation to the group, on the effects of hurricanes Irene, Gordon and Harvey. He presents a model which predicts approximately 3,000 new incidences of citrus canker. Weather analysis was presented Gottwald et al article in Phytopathology in April 2002 and is reviewed in Appendices C/C1.

Also at this meeting, there is a strong effort by both Mr. Gaskalla and Dr. Gottwald, to obtain support for the 1900-ft rule. It is suggested in the book that the final hold back to implementing the 1900-ft policy was authorization for funds for grove owner compensation.

April 11, 2000 - includes discussion by Dr. Schubert of a new, less virulent strain of canker found in Palm Beach County, which presumably is the Wellington strain.

4. Task Force Meeting Discussions

With my book, there are numerous excerpts of officials attending the Task Force Meetings in Chapters 1 and 9. Messrs. Meyers and Gaskalla made frequent comment. Of particular importance, is the 1900-ft rule was supported within residential areas by officials as a more expedient way to complete the program. Mr. Gaskalla reported at the April 11, 2000 meeting that manpower requirements were in fact less than planned because the 1900-ft rule meant fewer inspections were needed.

There appears no release of any information on the epidemiology research or the dissemination of citrus canker as formal reports at these meetings. All presentations were done by Powerpoint slides. The July 14, 1999 white paper was prepared by the RAG on movement of citrus fruit from quarantine areas does not appear to be made available to the Task Force. It is not until the April 11, 2000 meetings is there a comment by Mr. Gaskalla that the scientific community does not believe that properly treated citrus from quarantined areas poses a threat to spreading citrus canker. Further, the October 13, 1999, interim report providing research in support of the 1900-ft rule does not appear to be made available to the Task Force.

General information on the CCEP, including new discoveries and recruitment of staff was discussed. Discussion on commercial discoveries would be lead by Leon Hebb, Co-Director of the CCEP, of pest control, and Richard Gaskalla, Director of Department of Plant Industries.

The meetings did not always go smoothly. At the February 3, 2000 meeting, Jim Griffiths scoffs at Richard Gaskalla's optimism:

> Richard Gaskalla advised when the Europeans come over (Representatives of the European Union, mission related to agriculture trade), we will be able to convince them that we have an effective program. Jim Griffiths said he doesn't know how they can, but good luck!

Jim Griffiths concern seems mostly centered around a fear of quarantines rather might result from an ineffective program. Richard Kinney states at the February 3, 2000 meeting:

> … the scientists and regulatory communities are beginning to acknowledge and realize that the possibility of spreading canker on fruit [by the movement of fresh fruit] is slim

The experienced researchers at the meeting, Drs. Gottwald, Dixon, Poe, Sun and Schubert made no comment as the threat of quarantines (whether rational or not) was being used to convince others in the industry that the program was necessary.

5. Science Issues Subgroup : Sanitation in Groves

The Science Issues group raised concerns about use of non-porous ladders, picking tubs, frequent hedging or topping of citrus trees. However, the Regulatory Issues group voted against any mandatory rules. Also, the Regulatory Issues group voted against any prohibition of export of fresh citrus from quarantined areas to other citrus producing states. It must be remembered that this was an advisory committee, and none of its actions were binding on the Department.

There are other instances that showed commercial interests outweighed effective eradication measures. One example is the quarantining of nurseries, when the quarantine boundaries do not completely encompass all parts of the nursery. Obviously, the solution is to redraw the boundary. However, on June 30, the Science and Regulatory Issues Subcommittees, meeting together, voted to allow the part of the nursery outside quarantine boundaries to be allowed to ship its product.

It is clear from reading the minutes of the meeting of June 30, 1999 that industry members in the group were not interested in mandatory regulations that could raise the cost of growing citrus.

6. Concluding Remarks

This short note augments the discussion found in my book. It may be updated as needed. Copies of RAG reports and Task Force minutes are posted on the website. The quality of reproduction in some cases is poor, but the documents are posted as they were provided by the Department.

Reference

1. Schubert, T.S. , Gottwald, T.R., Rizvi, S.A., Graham, J.H., Sun, X., Dixon, W.N., 2001, Meeting the Challenge of Eradicating Citrus Canker in Florida- Again, Plant Disease, Vol. 85-4.
2. Gottwald, T.R., X. Sun, Riley, T. Graham, J. H., Ferrandino, F. and Taylor, E., 2002, Geo-Referenced Spatiotemporal Analysis of the Urban Citrus Canker Epidemic in Florida, Phytopathology, Vol 92, No. 4.