July 18, 2000

The President
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

RE: Destruction of U.S. Lime Industry

Dear Mr. President:

The entire U.S. lime industry is presently at risk due to actions of the governments of the State of Florida and the United States. We respectfully request your assistance in this emergency situation.

Background

On January 5, 2000, Asiatic Citrus Canker was found to have spread to the commercial lime industry in Miami-Dade County. As a result, about half of the industry has been destroyed and the balance is in jeopardy. This canker infestation occurred because of a long series of mistakes and delays. A summary of past and current events illustrates problems associated with this infestation and the dire need for immediate action.

Pest Interdiction

The U.S.D.A. is charged with protecting our borders from invasive pests and, if they enter the U.S., preventing their spread. However, interdiction efforts have not kept up with increases in trade and tourism. Primarily as a result, the State of Florida has suffered a rash of pest infestations, including:

- Oriental Fruit Fly. Found in May 1999.
- Mediterranean Fruit Fly. Found in 1990, May 1997, and April 1998.
- Killer Bee. Found Jacksonville May 1999.
- Citrus Leaf Miner. Found in May 1993.
- Brown Citrus Aphid. Found November 1995.
- Citrus Long Horned Beetle. Found April 1999.
- Citrus Canker.[1]

On August 23, 1995, at a U.S.D.A. hearing, a lime industry representative warned that he "had been told by Congressional Staff that APHIS (the Animal and Plant Health Inspection Service Branch of the U.S.D.A.) is currently so short-handed, it cannot adequately staff San Juan and Miami International Airports." Later, in October 1995, two to three year old citrus canker lesions were discovered near Miami International Airport.

Problems continue at South Florida ports. The March 2000 Office of Inspector General Audit report on USDA Plant Protection and Quarantine practices identified ". . . vulnerabilities and weaknesses which increased the risk of prohibited agricultural products entering the United States. [They] observed that PPQ inspectors did not (1) inspect cargo ships timely upon arrival, (2) inspect the baggage of 75 percent of arriving international airline passengers and 99 percent of cruise ship passengers arriving from foreign locations, (3) assess fines as a deterrent against airline and cruise ship passengers found to have prohibited agricultural items in their possession when entering the United States, (4) select samples of perishable cargo for inspection but, instead, allowed brokers to select the samples, and (5) ensure caterers met all foreign arriving aircraft timely and controlled regulated garbage. [They] also observed that cargo inspections performed during overtime periods, which accounted for over 50 percent of all cargo inspections, were not supervised."

Problems with Eradication Efforts

Recent citrus canker eradication efforts in Florida have been badly managed and ineffective. For instance, in the 1980's State of Florida agricultural officials destroyed 20 million citrus trees because citrus bacterial spot disease was misdiagnosed as a more harmful form of citrus canker. As a result, as of September 1992, $72.1 million had been paid out as compensation to affected growers.[2] The total cost of the program exceeded $100 million as an additional "$35 million was spent in eradication efforts."[3]

In June 1986, real, Asiatic strain citrus canker was found in St. Petersburg. In 1994, this localized outbreak was declared eradicated. In 1997, canker with the same genetic profile was found in neighboring Manatee County. At the May 14, 1999 Citrus Canker Technical Advisory Task Force Meeting, Dr. Jim Griffiths, Professor Emeritus, Retired, Citrus Research and Education Center, University of Florida, advised "that you can't claim 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."[4]

In October 1995, a new and most serious outbreak was discovered in Miami near the Miami International Airport, approximately 50 miles north of commercial lime groves in Miami-Dade County. The original 1995 Miami quarantine area included 15 square miles with positive finds. By October 1996, canker had been found in 60 square miles; by 1997, 170 square miles, and by February 1999, 220 square miles had positive trees. Sections containing positive canker finds had expanded at a rate of over 100 acres per day.

In 1998 through 2000, human movement of canker bacteria caused the disease to jump to the Florida Citrus and Lime industries.

Had the State and Federal governments aggressively moved to eradicate Miami strain canker in 1995/1996, hundreds of millions of dollars in taxpayer money could have been saved, hundreds of thousands of backyard trees would still be standing, and the Florida Citrus and Lime industries would not be in peril. Sadly, such action was not taken. Instead, the Federal/State eradication effort continued to have the following management problems:

Delays

One of the most serious problems in the lime industry was that canker infected trees were allowed to sit in the middle of lime groves for more than sixty days after they were discovered by the State/Federal Eradication Program. Given the infectious nature of the disease, this was unacceptable by any standard.

Program personnel were repeatedly notified of this problem. We have been told that the policy of allowing infectious trees to remain in a grove situation was inconsistent with practices in the rest of the State.

Canker was first found in the lime industry on January 5, 2000. Quarantine boundaries were not established for limes until April 2, 2000 and then, the boundaries set were erroneous because they inadvertently left out part of the industry. As of today, the Florida Department of Agriculture and Consumer Services (FDACS) website quarantine boundary map still has the wrong boundaries. Because of delays in notifying lime packing houses of the quarantine, packers were left in the middle of selling the spring lime crop with no harvesting or compliance permits, despite repeated efforts to obtain compliance agreement information and harvesting permits in preparation for quarantine.

Additional delays have impacted disbursement of canker compensation. In 1999, $9 million dollars was authorized by Congress to compensate citrus growers for trees destroyed due to canker. In addition, monies specifically for compensation for growers harmed by citrus canker were provided in Section 203 of the Agricultural Risk Protection Act of 2000 (P.L. 106-224). As of today, these funds have not been disbursed, despite the emergency declaration by both the Governor of Florida and the United States Secretary of Agriculture.

Poor Public Relations

The Citrus Canker Technical Advisory Task Force-Public Education Subcommittee met in April 1999 to assist the Eradication Project with public relations. Members of both the Citrus and Lime industries subsequently pushed to erect signage to warn residents not to move citrus products or contaminated tools beyond the quarantine boundaries. (Human movement is one of two principal methods of spreading canker; the other being weather.)

No progress was made on the signage project with explanations from State officials that "it was bad for the image," "could it wait until China [trade] was further along?", and "it might hurt citrus product sales."

A second example of poor public relations efforts is communications. The Florida Department of Agriculture and Consumer Services brochure, *Fighting the Threat of Citrus Canker,* prominently features a Citrus Canker Helpline with a phone number. At the June 14, 2000 USDA Lime Committee Meeting, Mr. Mike Hunt indicated that "I have referred a number of people to the Helpline and without fail, everyone of them has called me back and there has been no response whatsoever." Ken Bailey of the canker eradication project indicated, "The operators answering the Helpline did not have the information to answer the questions that a lot of homeowners were asking. That is the fault of the program. The system called the operator for the Helpline to refer the call to the section that would be pertinent—whether it be control, regulatory, or survey. There is where it got dropped."[5]

Calls to the Dade County Public Relations phone number in March 2000 produced a fax beep instead of a human voice.

Quarantine of Lime Sales in Florida

Florida limes are not allowed to be sold in most of the state of Florida due to quarantine. This eliminates a great local market and artificially forces grower prices down as canker-related growing costs go up. A scientific report prepared for the Citrus Canker Risk Assessment Group estimates a 1 in 100,000,000,000 chance of transmission of citrus canker through the sale of treated canker lesion free fruit.[6] It is unreasonable and unsupportable to prohibit these local sales as the risk is within parameters used by U.S.D.A. to allow the importation of fruit to the U.S. from countries with harmful pests.

Risk Assessments and Exposed Tree Removal

The Risk Assessment program itself is flawed. The Florida Department of Agriculture and Consumer Services (FDACS) adopted a policy, based upon a questionable administrative rule, that it would remove all trees within 1900 feet of an infected tree. The program requires FDACS to serve owners of infected or exposed trees with an immediate final order of the impending destruction of their trees and advises them of the right to seek a variance of this action through a risk assessment procedure. Although major lime growers have never objected to the immediate removal of infected lime trees, risk assessments have been requested on the removal of "exposed trees." We believe that for commercial lime groves, the 1900 foot eradication rule is inherently flawed and will be shown to have caused irreparable harm while being wholly ineffectual.

To date, one lime grower has requested risk assessments on groves that the company owns or manages and for which they have received immediate final orders. The results of these efforts are that they received a variance from the Department's 1900-foot eradication rule for one grove that was later revoked; and the remaining requests for risk assessments on commercial groves have been summarily denied. The denial letter stated that "...there is a consensus of opinion at this time from the risk assessment group that we should not deviate from the 1900 feet exposed tree removal process in the lime production areas of South Dade." To date, every one of the

company's groves that are within 1900 feet of an infected tree, totaling 112,686 lime trees, have been bulldozed and burned. The total infected citrus trees in those groves was 404.

The 1900 foot radius destruction zone is arbitrary and capricious. The stated goal of the research upon which this "rule" is based and that was conducted in urban Miami *(Gottwald, et al, American Phytopathology Society Annual Meeting, 1999 Montreal, Canada, Poster Abstract)* "was to measure disease gradients in Miami resulting from rainstorms to determine if the current practice of removing exposed trees within 125 feet of diseased trees is adequate to curtail further disease development." This goal was not attained by this research because "exposed trees within 125 feet of diseased trees" were not removed until the study was completed. (i.e. the results only address the spread that would be anticipated if there were no eradication efforts attempted).

The urban Miami study focuses on rainstorms as a disease transmittal mechanism. The analysis does not allow for the possibility of spread due to mechanical movement including dogs, cats, insects and their damage, meter readers, garbage collectors (and their trucks), lawn maintenance workers (and their equipment), etc. The results include exposure risks not found in commercial groves that are fenced and gate-secured against unauthorized entry; where citrus leaf miner damage is controlled with insecticides; and where all personnel and equipment are cleaned and disinfected prior to entry.

A copy of an abstract by T.R.Gottwald and Jim Graham, entitled "Estimating spread of Asiatic Citrus Canker in urban Miami via GPS" from the 1999 American Phytopathological Society's annual meeting, along with some photo copies of tables and graphs were shown to lime growers, at a meeting with Craig Myers (Deputy Commissioner for FDACS) and Commissioner Crawford on February 4, 2000 in Homestead. Later, copies of this material were sent to us by Craig Myers; however, some of the copies of the tables/graphs were illegible.

We requested legible copies of the graphs from the author, T.R. Gottwald (USDA - ARS). His response was somewhat disconcerting: "If you do have or obtain a copy of this please understand that what you have is UNPUBLISHED analyses. ...what you have is INCOMPLETE and INACCURATE. I would very much appreciate it if you would dispose of it and rely solely on the published abstract."

Shortly thereafter, the Florida Senate passed SB 1114er, which reads in part: "recent scientific studies have shown that citrus trees as far as 1900 feet from infected citrus trees will develop the disease from wind-blown rain or by other means."

The use of publicly funded research/analyses as a basis for new laws, when that research is unavailable ("UNPUBLISHED" or not), is a misuse of both science and the tax payers money. As a stakeholder, it is important to have the opportunity to review scientific studies that the regulators and legislators are citing in their decision making processes. It is also important that our industry's support of the Citrus Canker Eradication Program be based on informed decision making and sound science.

It is of grave concern that one-half of the Lime Industry has been destroyed, and new law and regulations are being enacted based upon USDA research, which we are unable to review because it is not "publicly available at this time".

Dr. Bergamin-Fihlo, at the International Citrus Canker Research Workshop, Fort Pierce, Florida, June 20-22, 2000, stated that "epidemiolology studies are so far based on surveys and computer modeling. Field trials are needed to verify conclusions by a hypothesis testing approach".[7] Dr. Bergamin-Filho's recommends verifying the modeling, which is presently driving the disease management decisions, by field trials in Argentina or Brazil. This research would give us all the confidence that is currently lacking in the eradication program. Funding of this research is essential to having a science-based approach to eradication.

A further troubling fact is that studies in Brazil have shown that at best, inspectors may only be finding 6% of the diseased trees in a grove situation.[8] If the 15,000 acres included in the urban Miami study were surveyed with similar reliability and sensitivity, the results of the Gottwald study are certainly of dubious value.

Another aspect of the 1900 foot rule is that it seems to have been enacted as a matter of convenience. A review of statements of FDACS employees as reported in minutes of the meetings of the Florida Citrus Canker Technical Advisory Task Force (FCCTATF), would lead one to believe one of two things: either the 1900 foot rule was adopted because the eradication program was slow and mismanaged or because the State's primary goal is to save effort and resources of the Department of Plant Industry. Either scenario is plausible and supported by numerous comments by State officials during public meetings.[9]

Regardless of the motives, the State's risk assessment has resulted in disparate treatment between the Citrus and Lime industries.

During the period of February, 2000 to May 2000, when most of our requests to obtain a risk assessment were being denied prior to any consideration of the merits by the risk assessment group, six variances from the 1900 foot eradication zone were granted in commercial groves in Collier and Hendry counties.[10] Mitigating factors mentioned in these risk assessments include: separation by roads, windbreaks, lack of common management, grove management record keeping, restricted access, and resistance of cultivar (mentioned in reference to Valencia orange which is moderately susceptible to citrus canker). Again, we have one set of standards for Citrus and another for the Lime industry.

Persian limes have been shown to be one of the most resistant cultivars of citrus.[11] Many (and in some instances all) of the factors used to mitigate the eradication zone in the above examples have been present in the groves that we have been denied even the chance to risk assess.

In addition, the Lime industry in South Florida is bordered on the east and south by the Atlantic Ocean, bordered on the west by the Everglades National Park, and on the north by over 100 miles of urban development, which is spotted with positive and exposed citrus trees of every variety. The miles and miles of buffer between the lime industry and the rest of the commercial

citrus in the state greatly reduces the chance of natural spread of the citrus canker pathogen to other production areas. This fact has in no way entered into the risk assessment equation, and it is especially hard to comprehend how positive finds within the larger citrus industry (Collier and Hendry counties) can be mitigated, while lime groves are not even permitted an adequate hearing.

Survey Methods

Current surveying methods are completely inadequate, and in order to eradicate it, we must first determine the level of infestation.

The sensitivity and reliability of visual detection by trained inspectors has been studied in Brazil. One block of citrus was inspected sequentially by 15 different groups of inspectors within a one-week period. Two groups found more canker than one group, 3 more than 2, 4 more than 3, etc. all the way up to 15 groups finding more canker than 14.[12] Unfortunately symptoms are the sole practical means of detecting the disease, a fact which puts us behind the infection front every time we find a new infected tree.[13] Symptoms may be visible within 7-10 days, but it may take 100 days for a survey to find it.[14] During that period of time there is adequate opportunity for the disease to spread. Clearly, we are failing to detect diseased trees in a timely manner because we are using severely outdated 10,000 year old technology, i.e. sending hundreds of inspectors in to a field to visually detect the diseased trees.

At least in the Lime production area, the lack of timely and precise detection has resulted in all citrus trees being destroyed within a 260 acre circle of an infected tree. T. Gottwald, an epidemiologist with the USDA-ARS, has said "detection threshold has driven distances we chose" and that the "weakest link is detection". The federal government has allocated eight million dollars for citrus canker research. Finding ways of improving our detection sensitivity and reliability needs to be the highest priority. The evaluation of the use of dogs, electronic noses, and remote sensing through spectral analysis to detect the presence of citrus canker need to be funded. If we are to put our money and our crops at risk, replant, try to rebuild the lime industry, we must be assured that bulldozers will not be the method of disease control in the future.

Conclusion

Our lime industry is being destroyed by failed interdiction and eradication programs. Since 1995, we have been trying to get adequate governmental responses to the problems of invasive pests. Since August 1998, we have been trying to get help on citrus canker issues. We are out of time. We are truly in an emergency situation. The entire U.S. lime industry is being destroyed, and our environment is being harmed.

We request:

- Better management of the eradication program.

- Fair risk assessment.
- Immediate disbursement of authorized compensation payments.
- Compensation to lime growers and lime packers for destroyed property and multi-year lost earnings.
- Authorization for the sale of properly treated Florida limes throughout Florida.
- That a significant portion of the eight million dollars earmarked for citrus canker research be devoted to:
  1. Finding a cure;
  2. Detection technology; and
  3. Verification of the epidemiological modeling by field trials in Argentina or Brazil

We apologize for appealing to you directly, but we believe that without your immediate and meaningful help, our industry will cease to exist.

Sincerely,

Alcides Acosta

Neal P. Brooks

Craig Wheeling

Mark Philcox

Steve Sapp

Herbie Yamamura

cc: Commissioner Dennis Moss
Commissioner Katy Sorenson
Mayor Alex Penelas
Florida Congressional Delegation
The Honorable Dan Glickman, U.S. Secretary of Agriculture
The Honorable Bob Crawford, Commissioner of Agriculture and Consumer Services
The Honorable Jeb Bush

SOURCE LIST

[1] University of Florida, Department of Entomology, Nematology, and Plant Pathology, Pest Alert Website.

[2] Legislative Staff Report, State of Florida, House Agriculture & Consumer Services Committee, Report on the Citrus Canker Compensation Program, February 2, 1993, page 1.

[3] Scientists Conclude the Canker Outbreak is Real, Kevin Bouffard, *The Ledger*, March 26, 2000.

[4] Summary of CCTATF Meeting, May 14, 1999, page 9.

[5] Transcripts of June 14, 2000 U.S.D.A. Lime Marketing Order Committee Meeting.

[6] Bacterial Citrus Canker and the Commercial Movement of Fresh Fruit, November 23, 1998, T.S. Schubert, J.W. Miller, William Dixon, T.R. Gottwald, J.H. Graham, L.H. Hebb, and S.R. Poe.

[7] Dr. A. Bergamin-Filho & Dr. G. Hughes. Citrus Canker Epidemiology – Methodologies and Approaches. At the International Citrus Canker Research Workshop, Ft. Pierce, FL June 20-22, 2000.

[8] *Ibid.*

[9] Craig Myers, speaking of 125 foot remedy, "It has seemed to work in some parts of the state where it didn't work in others." (FCCTATF meeting, 7/16/99); Ken Bailey, ". . .said that the reason 125 feet failed is that we didn't have the resources to remove trees quickly and that resulted in subsequent infections." (FCCTATF joint meeting with SIWG, 6/30/99); Ken Bailey, in a discussion of the time frame between when a tree is detected with citrus canker and when it is cut in south Florida" . . .probably on an average of 60 to 90 days, . . . they are shooting for two weeks" (FCCTATF meeting, 11/16/99); Richard Gaskalla, ". . .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." (FCCTATF meeting, 11/16/99); Richard Gaskalla . . ."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 re-survey 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." (FCCTATF meeting, 11/16/99). Craig Myer, "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. . . By extending the eradication area, we will reduce the survey need." (FCCTATF meeting, 11/16/99). Richard Gaskalla, ". . .the number of people that we need particularly in South Florida has decreased and that is because we have changed our strategy away from the intensified survey up to 1900 feet destruction radius of citrus, so if you go in and find a tree and go out to 1900 ft., there is no reason to go in there and look anymore; you remove all that citrus, then that is an area we don't have to survey again. We are going to reprogram some of the survey money into control. As far as Statewide resources, they are about the same level as they were. Richard said he thinks now that we can run this program with 1,000 employees rather than 1,800 – 1900 we were talking about earlier, however, 1,000 people is still a lot of people to manage." (FCCTATF meeting, 2/3/00).

[10] Citrus Canker Risk Assessment Group Meeting Reports; 19, 21, 25, & 30, obtained through a freedom of information act petition. February 2000: Summerland Grove; A grapefruit (which is highly susceptible to citrus canker) grove 220 feet from a positive tree was not eradicated; February 2000: Ranch One Cooperative Grove; A Valencia orange (which is moderately susceptible to citrus canker) grove and a grapefruit (which is highly susceptible to citrus canker) grove, both of which were within 1900 feet of a positive tree were not eradicated;

March 2000: Silver Strand South Grove; A Valencia orange(which is moderately susceptible to citrus canker) grove 320 feet from a positive tree was not eradicated; May 2000: Star-Glo Grove: A neighboring Valencia orange (which is moderately susceptible to citrus canker) grove (Jack M. Berry Groves) and a grapefruit (which is highly susceptible to citrus canker) grove, both of which were within 1900 feet of a positive tree were not eradicated.

[11] Dr. R. Leite. Control Studies in Brazil. At the International Citrus Canker Research Workshop, Ft. Pierce, FL June 20-22,2000.

[12] Dr. A. Bergamin-Filho & Dr. G. Hughes, Citrus Canker Epidemiology – Methodologies and Appraches. At the International Citrus Canker Research Workshop, Ft. Pierce, FL June 20-22, 2000.

[13] Dr. T. Schubert. Integrating the Scientific Perspective into Citrus Canker Eradication Efforts in Florida. At the International Citrus Canker Research Workshop, Ft. Pierce, FL June 20-22, 2000.

[14] *Ibid.*