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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

Antigua Guatemala, 24 June 1960

Dr. Harold F. Winters
Agricultural Research Service,
Crops Research Division,
Beltsville, Maryland.

Dear Dr. Winters:

Dr. Cochran kindly wrote me under date 21 June, replying to a letter I had addressed to my old friend George Darrow about crab apples. Dr. Cochran suggested I write Carl Fenninger which I have done. In Guatemala, in Honduras, in Nicaragua and doubtless in other tropical American countries we have what we call "perotes" which George Darrow thinks are Spanish crabs and which seem to do well at lower elevations than commercial apples from the States. We want to do some more work with these crabs and I have asked Dr. Fenninger to give us suggestions.

In his letter to me, Dr. Cochran says you suggest as to interesting apples varieties for trial down here, Early strawberry and Dolgo. I have never heard of these and doubt that they have been introduced here. Can you tell me where they might be had? I will mention, incidentally, that we get most of our nursery stock, so far as apples are concerned from the California Nursery Company and from Armstrong.

Dr. Cochran asked if we had tried Beverly Hills. We have, and Dr. Chandler himself saw it in our collection some years ago - and I might add that George Darrow, when he came to Honduras in 1959, told us we have the best collection in this part of the world, of temperate zone fruit varieties chosen for low chilling requirements.

Beverly Hills has been a failure with us at 6000 feet. Here in Guatemala the variety which does best at the lowest elevations is Winter Banana. This is quite productive at 6500 feet and above. Delicious, Golden Delicious and Gravenstein are also cultivated here successfully.

Because I suspect the subject maybe of interest to you, I will add that we are making much progress down here in connection with the cultivation of Japanese plums, and a little progress in connection with pears and peaches. I would add that we are getting rather enthusiastic regarding the possibilities of temperate zone fruits in the tropical highlands. Damon Boynton of Cornell has suggested we hold a symposium somewhere down here. The matter is in the hands of Ernest Casseres and I think we are going to get something done.

Sincerely yours,

Wilson Popenoe

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
CROPS RESEARCH DIVISION
BELTSVILLE, MARYLAND

June 21, 1960

Dr. Wilson Popenoe
Antigua, Guatemala

Dear Dr. Popenoe:

Your letter of May 7 to Dr. Darrow about apple trees for Guatemala was given to me for answer.

Dr. Harold F. Winters of New Crops Research Branch advises that crab apples have been most thoroughly described in an article entitled "Crab apples for America" published by Donald Wyman in the American Annals of Botanical Gardens and Arboretums. This can be obtained from Carl Fenninger, 8304 Steton Avenue, Philadelphia 18, Pa.

As to regular apple varieties, as you know, a low chilling requirement is the limiting factor. Mr. Winters has suggested the Early Strawberry and Dolgo. Have you tried the variety known as Beverly Hills which was developed by Dr. William Chandler? This has a low enough chilling requirement that it grows well in Los Angeles, California.

There is a fairly large collection of crab apples at the Glenn Dale station but you would have to know the names of the varieties before they can be requested.

Very truly yours,

L. C. Cochran

L. C. Cochran, Chief
Fruit and Nut Crops Research Branch

cc: Dr. Darrow

Antigua, Guatemala 7 January 1971

Mr Harold F. Winters
Agricultural Research Service, USDA
Beltsville, Maryland.

Dear Harold:

Under date of December 14 I have a letter from Howard Hyland saying that you would like seeds of the Crataegus which has long been used here as a rootstock for pears. In fact, until very recently this has been the only rootstock. I believe Paul Standley called it C. pubescens. Seems to me it is probably the same as C. stipulosa and/or C. mexicana (see my Manual of Tropical and Subtropical Fruits for a picture).

I am sending this seed - 220 or so - with this letter to the Plant Inspection Station as instructed. I can get you all you want of it, within the next month, if you let me know. But I think, if you are really interested, the time may be ripe to discuss this matter of pear rootstock, and see if we can be mutually useful.

Some ten years ago I began to work seriously on this problem of pear rootstock for Central America (which to all intents and purposes means Guatemala). Crataegus is a slow grower, the scion outgrows the rootstock tremendously, and nurserymen can not use it; the practice has been to plant seedlings in orchard form, and when they are two to three years old, graft them to the desired variety. The advantages of Crataegus seem to be, as far as I can figure them out, that it will grow on poor soils, is highly drought resistant, and is satisfactory at relatively low elevations. Four or five years ago we tried to switch over to French pear (probably Bartlett) from the US, but had trouble at 6000 feet. Bartlett seems to need almost 8000 feet when you grow it for fruit. Four years ago I took advantage of our experience with Calleryana, on which we have Baldwin and several

of oriental hybrids fifteen years old and they have done very well. I took the matter up with colleagues in Florida and California and Oregon and they were of the opinion that calleryana may be our rootstock I got seed in 1968 and 1969 from Herbst Bros in N Y (seed from Korea or somewhere over there and there are now nearly 50,000 seedlings in nursery here. They graft well and we are enthusiastic about them.

Now, I wonder if I am right in thinking that your interest in Crataegus may have been aroused by tales which have gone from here about a "sandwich graft" for pears. Just why we need a sandwich (scout graft I don't know, but Victor Aspucac up at San Bartolomé, between here and Guatemala City at 6800 feet, the main pear growing center in Guatemala (see my paper in Fruit Varieties of the Am Pomological Soc for January 1968). Aspucac says he has used (no commercially as yet, I believe) Crataegus roots; then a section of what he calls para acida (and this is the catch, I don't know what he means by sour pear) and then Hood as the producer. He told a friend of mine the other day that since doing this trick he has found that Hood does well on Kleffer and Pinapple rootstocks he is no longer much interested in the "sandwich" graft.

All of this for your information or misinformation. I shall try to look into the matter personally during the next few months when I shall be getting into the game, after the dormant season is over. I have just written your colleague H.J. Brooks about this pear business asking for some scions which we can grow to determine whether or not we have correctly named three of our most important varieties here, which we are calling Clapp Favorite, Lincoln and the third perhaps Clairgeau; I think us guys had better work together on this pear business - the I don't know that your own interest extends beyond the plant introduction stage - because we have got the apple problem pretty

well licked in Guatemala, though I will have to add that we still are pretty much in the dark about rootstocks. We had the Malling Merton fever for a couple of years, but we begin to doubt that we should switch ever to that type of material. I think we are in a fair way to put pear culture on its feet, as soon as we can find out what we really have and what we should plant.

Incidentally, I don't know just how you plan to handle this Crataegus seed. Our best horticulturist Arturo Falla says it should be refrigerated for a time, to hasten germination. This has not been the practice in the past for the simple reason that nobody ever heard of it and nobody had any refrigeration.

With best regards,

Faithfully yours,

Wilson Pepene

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
CROPS RESEARCH DIVISION
BELTSVILLE, MARYLAND 20705

December 14, 1970

Dr. Wilson Popenoe
Antigua, Guatemala C.A.

Dear Dr. Popenoe:

Mr. Winters, of this office, has asked us to determine whether you have propagating stock of the Craetegus that has been reported used as root stock for pears and apples. He is also interested in learning whether an interstock is used between Craetegus and pears.

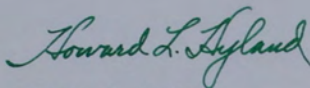
If seed is plentiful, we could use a generous supply and look forward to your comments. It will help if the package can be directed through the following address:

U.S.D.A. Plant Inspection Station
14th and Independence Avenue, SW.
Auditors Building - ARS
Washington, D. C. 20250

Att: Mrs. M. L. Haines

We thank you in advance for this cooperation.

Sincerely,



Howard L. Hyland
Plant Introduction
New Crops Research Branch

cc:
M. L. Haines

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
CROPS RESEARCH DIVISION
BELTSVILLE, MARYLAND 20705

January 26, 1971

Dr. Wilson Popenoe
Calle de la Nobleza No. 2
Antigua, Guatemala

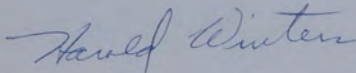
Dear Dr. Popenoe:

Thank you very much for your letter of January 7, also for the package of Crataegus seeds. I am somewhat doubtful as to the value of this species for use as rootstock in this country since it has been introduced several times in the past for this purpose. This time it was requested by Mr. C. L. Hemstreet, Jr., University of California, Agricultural Extension Service, Kelseyville, California 95451. Perhaps the results will be different with his trial. Dr. Hemstreet mentioned your name in requesting the seed, also he mentioned having seen pears on this rootstock in Guatemala. I am taking the liberty of sending a photocopy of your letter to Dr. Hemstreet so he will have all of the information you gave about the "sandwich" graft and "pera acida." He will also be interested in your comments about the use of Pyrus calleryana as a rootstock. Perhaps he can supply you with more information than I can about its previous use in the west where trees on Oriental pear rootstocks succumbed to the pear decline disorder.

It was certainly nice to hear from you again. I had expected to see you at the Tropical Regional meeting of ASHS in October. If we can help you in your program, please do not hesitate to call upon us.

With best personal regards.

Sincerely,



Harold F. Winters
Research Horticulturist
New Crops Research Branch

Antigua, Guatemala 15 May 1971

Dr Harold F. Winters
Plant Introduction Section
Agricultural Research Service
Beltsville, Maryland

Dear Harold:

This business of "Grapes for Tropical America". Joe Fennell worked hard on it for quite a few years; others have worked on it; and in trying to get back in the game last autumn (not as a breeder, but as a humble catalyser) I found that Dr Olmo at Davis and John Mortensen at Leesburg are interested. And working on it. One of my problems is to find people who will do the testing work here in Central America. Dr Olmo seems to be lining things up in Venezuela but we need all the cooperators we can get, and I think I have found a man here in Guatemala who will take things seriously.

But here is why I am bothering you today. Back in 1918 I turned up a new muscadine in the Isthmus of Tehuantepec, which Joe Fennell named for me and with which he made some crosses. But I guess nothing good developed and I feel pretty sure V. ponceoi is not available today in the U.S. John Mortensen would like to get some seeds. The friends in Tehuantepec from whom I could get it back in 1918 are dead, naturally enough. Do you folks have any contacts down that way? I bought fruits of this grape in the town of Tehuantepec in August. Please note enclosed picture of the fruits, not "la linda Tehuana" as the Mexicans call the ladies of that region. Lets put our heads together and get some seed this year, for California and Florida to use in the development of these Grapes for Tropical America.

Faithfully yours,

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
~~CROPS RESEARCH DIVISION~~
BELTSVILLE, MARYLAND 20705
Plant Science Research Division

June 14, 1971

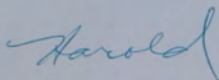
Dr. Wilson Popenoe
Antigua
Guatemala

Dear Dr. Popenoe:

Thank you for your interesting letter of May 15, regarding grapes for Tropical America. I have also followed this work but it has seemed to be at a low ebb during recent years. If I am not mistaken we still have a plant of Vitis popenoei at the Miami Station as P.I. 119001. According to the published inventory this seed was received from you on November 11, 1936. This collection came from Puerto Mexico, Veracruz, Mexico. I am forwarding a copy of your letter along with a copy of this one to our mutual friend Robert J. Knight, Jr. If the plant is still surviving, Bob will know about it and can arrange to supply either seeds or mist propagation to John Mortensen.

As always it was good to hear from you and I wish you lots of luck with the grape project.

Sincerely,



Harold F. Winters
Research Horticulturist
New Crops Research Branch

cc:
R. J. Knight, Jr.