



Hunt Institute for Botanical Documentation
5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Contact: Archives
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

The Hunt Institute is committed to making its collections accessible for research. We are pleased to offer this digitized version of an item from our Archives.

Usage guidelines

We have provided this low-resolution, digitized version for research purposes. To inquire about publishing any images from this item, please contact the Institute.

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.

RUTGERS · THE STATE UNIVERSITY

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
DEPARTMENT OF HORTICULTURE AND FORESTRY

NEW BRUNSWICK, NEW JERSEY 08903

January 20, 1969

Dr. Wilson Popenoe
Antigua, Guatemala C.A.

Dear Dr. Popenoe:

I am not sure, yet, just how the details are going to be worked out, but Dr. Dawson told me earlier this week that he was sure that I should plan to come to Guatemala late in February with scions of the fruit selections that I want to have top worked. Dr. Dawson will probably be in Guatemala during the first week in February, and I am sure that he will try to get in touch with you then. As soon as I have more details, I'll write to you again.

I'm enclosing brief fruit descriptions of the selections that I think will be worth testing in Guatemala. I have tried to pick some of my brightest colored, mild quality, crisp textured, early ripening apples, because it seems to me that the cool growing season in the Guatemalan highlands made apples dark, dull, firm and sour. Since Winter Banana does so well, I've picked earlier ripening varieties so that new varieties would not compete, either in harvest or marketing, with the established planting of Winter Banana. I'm confident that all of the apples will do well at around 8000' elevation, with the Ovalle brothers, for example. But I think some will grow as low as 6000', and I'd like to have Arturo Falla try them at Concepcion.

I think all the pears will be good for fresh market and some of them will be good for processing, too. The first five early blooming ones should do well wherever Kieffer does well. All of them should do well above 7000'. I'd like to have Arturo Falla try them all at Concepcion, though, because I think some of the varieties that bloom with Clapps Favorite might do well at 6000', too.

We have chosen the freestone and clingstone peaches and nectarines on the basis of early blooming, large size, and early ripening. We have included some late ripening freestone peaches (Blake, Jerseyqueen, NJ240 and NJ243) because they represent special genotypes that I think will be desirable if they are adapted. I think the earlier ripening ones, in particular, will be profitable if they ripen in midsummer before the rains get so heavy that fruit rots become a problem. I think that the earliest blooming ones will bloom about with the latest blooming selections that Ralph Sharpe has sent to Arturo Falla. I'm particularly anxious to have the clingstone peaches tested in two or three sites. There is a growing

January 20, 1969

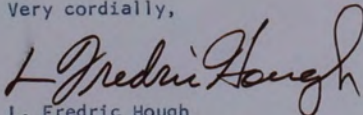
interest in processing peaches in several places in the tropical highlands, and I know these will process well. I'm sure all of these selections (nectarines, freestone and clingstone peaches) will do well above 7000'. Some of each group should grow well at 6000', so I'd like to have Arturo Falla try them all at Concepcion. Of course, I would like to have the Ovalle brothers test the whole list, too.

All but the last two of the apricot selections are quite early blooming, even for apricots, and the fruit size of all of them is either medium or large. I expect that some of them will do pretty well at 6000' and higher. I want to test all fifteen because each one is from a rather different parentage and there is a chance that the different genotypes will respond somewhat differently. Our growing conditions here in New Jersey are cooler and much more humid than in California, for example, and all of these do well here. I expect, though, that under the cooler conditions in the highlands, they will take more time from bloom to harvest than we have observed in New Jersey. I'd like to have the whole list tested by the Ovalle brothers and by Arturo Falla at Concepcion.

I'd also like to have Arturo Falla test all of the apricots and some of the lowest chilling peaches and nectarines near his home in San Sabastian. I am anxious to have Arturo Falla test everything for two reasons. In the first place, I am confident that some things will do well for him and some may not, so that the performance of these varieties in his orchards may well be the most interesting and differential of all the sites that we might find in Guatemala in the next few years. Secondly, since he is an excellent horticulturist and a very aggressive businessman, if he does find some varieties that do well, I'm sure that they will get into production quickly and this is the best kind of advertising that we can hope to get.

I'll write more just as soon as I have more information to give you.

Very cordially,



L. Fredric Hough
Research Professor in Pomology

RUTGERS · THE STATE UNIVERSITY

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
DEPARTMENT OF HORTICULTURE AND FORESTRY

NEW BRUNSWICK, NEW JERSEY 08903

January 27, 1969

Dr. Wilson Popenoe
Antigua, Guatemala, C. A.

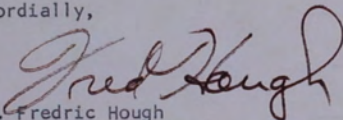
Dear Dr. Popenoe:

With this letter, I am enclosing two copies of fruit descriptions of the selections and varieties that I would like to have tested in Guatemala. (I'm not sure whether these were enclosed in the letter I sent you last week).

I have had a couple of my Spanish students working on translations of these descriptions into what I hope will be idiomatic Spanish. As soon as I have these translations edited and typed, I will send you copies of the fruit descriptions in Spanish. Of course, I will appreciate your further editing of the Spanish translations.

I am still hoping to see you during the last week in February.

Cordially,



L. Fredric Hough
Research Professor in Pomology

LFH:lr
Enclosures

Brief Description of
Pears Recommended for Trial Plantings
in Tropical Highlands

NJ10--Medium large size, yellow with small russet lenticels, obtuse pyriform, medium crisp texture (not buttery), some stone cells at the core, juicy, fair quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Apparently moderately resistant to fire blight.

NJ11--Medium large size, smooth golden russet, crisp texture, fair quality--slightly perfumed. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

NJ12--Very large size, smooth golden russet, round, crisp texture, good quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

Mericourt--Medium size, yellow, pyriform, medium smooth texture but not truly buttery, very good quality. Medium early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Resistant to fire blight.

NJ7--Medium large size, yellow with slight blush, pyriform, smooth texture--not truly buttery, good quality. Medium early blooming in New Jersey. Ripe about with Clapps Favorite. Moderately resistant to fire blight.

NJ8--Medium size, yellow, obtuse pyriform, fine texture but not truly buttery, good quality. Blooms about with Clapps Favorite in New Jersey. Ripe soon after Bartlett. Apparently moderately resistant to fire blight.

NJ9--Medium large size, light yellow, obtuse pyriform, medium fine texture but not buttery, good quality. Blooms with Clapps Favorite in New Jersey. Ripe just before Bartlett. Apparently moderately resistant to fire blight.

NJ5--Medium size, yellow, pyriform, medium fine texture, but not buttery--similar to Clapps Favorite, good quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Maxine--Medium large size, yellow, pyriform, medium fine texture but not buttery, fair quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Moonglow--Medium large size, green, pyriform, medium fine texture--almost buttery, good quality. Blooms just after Clapps Favorite. Ripe soon after Bartlett. Resistant to fire blight.

Rutgers University, Department of Horticulture & Forestry, L. F. Hough. 2/69

Brief Description of
Apples Recommended for Trial Plantings
in Tropical Highlands

NJ44--Medium size, nearly full red, moderately firm, moderately acid (tart). Very early blooming in New Jersey. Ripe about 71 days after bloom in New Jersey.

NJ36--Medium large size, bright 1/2 to 3/4 red, crisp texture, slightly aromatic, good mild flavor. Very early blooming in New Jersey. Ripe about 79 days after bloom in New Jersey.

NJ46--Large size, nearly fully covered with bright red, round conic, medium crisp texture, good mild flavor. Very early blooming in New Jersey. Ripe about 99 days after bloom in New Jersey.

M2439--Medium size, yellow, smooth skin, good texture, good mild flavor. Very early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Mollie's Delicious--Very large size, 1/2 to 3/4 red on creamy white ground color, very good crisp texture, very good mild flavor. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

NJ47--Medium size, 1/2 to 3/4 red on light straw yellow ground color, firm breaking texture, moderately acid, pleasant flavor. Early blooming in New Jersey. Ripe about 147 days after bloom in New Jersey.

Brief Description of
Apricots Recommended for Trial Plantings
in Tropical Highlands

NJA1--Very large size, (up to 2 1/4" in diameter), yellow flesh, firm, good quality. Ripe about 84 days after bloom in New Jersey.

NJA2--Large size, orange flesh, medium firm. Ripe about 77 days after bloom in New Jersey.

NJA4--Very large size, yellow-orange flesh. Ripe about 84 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA5--Medium size (average 1 1/2" in diameter), orange flesh, moderately firm. Ripe about 88 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA6--Medium size, light orange flesh, very firm, moderately dry. Ripe about 88 days after bloom in New Jersey.

NJA8--Large size, yellow, firm. Ripe about 98 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA9--Medium size, orange flesh, medium firm. Ripe about 98 days after bloom in New Jersey.

NJA10--Medium size, attractive blush, orange flesh, firm. Ripe about 106 days after bloom in New Jersey.

NJA11--Medium size, attractive blush, orange flesh, firm, moderately dry. Ripe about 106 days after bloom in New Jersey.

NJA13--Very large size, orange flesh, firm, may crack in rainy weather at harvest. Very early, ripe about 72 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

NJA17--Large size, orange flesh, moderately firm. Very early, ripe about 74 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Phelps--Very large size, creamy white flesh, medium soft flesh. Ripe about 79 days after bloom in New Jersey.

Veecot.--Medium size, orange, medium firm. Ripe about 96 days after bloom in New Jersey.

NJA7--Medium size, light orange, firm, fine texture. Late blooming for apricots in New Jersey. Ripe about 87 days after bloom in New Jersey.

NJA18--Large size, light orange, medium firm. Late blooming for apricots in New Jersey. Ripe about 107 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

Brief Description of
Peaches--Canning Clingstones--Recommended for Trial Plantings
in Tropical Highlands

NJC84--Large size (over 2 1/2" in diameter), yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 103 days after bloom in New Jersey.

NJC85--Very large size (3" diameter), yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey.

NJC11--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

NJC72--Medium size, deep yellow flesh, no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJC81--Large size, yellow flesh, non-melting clingstone peach similar to Babygold varieties. Early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Babygold 5--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 116 days after bloom in New Jersey.

Babygold 6--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Babygold 7--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Brief Description of
Nectarines Recommended for Trial Plantings
in Tropical Highlands

NJN61--Medium size, yellow flesh, moderately firm, freestone, red at pit. Very early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey.

NJN62--Medium large size, yellow flesh, moderately firm, freestone, no red at pit. Very early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN57--Medium large size, yellow flesh, moderately firm, freestone. Early blooming in New Jersey. Early ripening, about 91 days after bloom in New Jersey.

NJN59--Very large size, yellow flesh, moderately firm, partially freestone, slight red at pit. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN60--Very large size, white flesh, red at pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Nectarid 2--Medium large size, yellow flesh, some red at the pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey. More resistant to brown rot than other nectarines.

Nectarid 4--Medium large size, yellow flesh, moderately firm. Early blooming in New Jersey. Ripe about 112 days after bloom in New Jersey.

Nectarid 6--Medium large size, yellow flesh, freestone. Moderately firm. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Brief Description of
Peaches--Freestones--Recommended for Trial Plantings
in Tropical Highlands

NJ238--Medium size, yellow flesh, no red at the pit, tender flesh freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey. Seedling of Flordawon.

NJ239--Medium large size, yellow flesh, some red at the pit, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey.

NJ240--Large size, yellow flesh, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 146 days after bloom in New Jersey.

Sunqueen--Large size, bright yellow flesh, red at pit, firm, freestone. Early blooming in New Jersey. Ripe about 114 days after bloom in New Jersey.

NJ241--Large size, yellow flesh, moderately firm, freestone. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

NJ242--Large size, yellow flesh, moderately firm, freestone, some red at pit. Early blooming in New Jersey. Ripe about 125 days after bloom in New Jersey.

Blake--Very large size, yellow flesh, much red at pit, very firm, freestone. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Jerseyqueen--Very large size, yellow flesh, red at pit, very firm, freestone. Early blooming in New Jersey. Ripe about 135 days after bloom in New Jersey.

NJ243--Large size, orange flesh, slight red at pit, only partially freestone. Early blooming in New Jersey. Ripe about 143 days after bloom in New Jersey.

Brief Description of
Pears Recommended for Trial Plantings
in Tropical Highlands

NJ10--Medium large size, yellow with small russet lenticels, obtuse pyriform, medium crisp texture (not buttery), some stone cells at the core, juicy, fair quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Apparently moderately resistant to fire blight.

NJ11--Medium large size, smooth golden russet, crisp texture, fair quality--slightly perfumed. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

NJ12--Very large size, smooth golden russet, round, crisp texture, good quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

Mericourt--Medium size, yellow, pyriform, medium smooth texture but not truly buttery, very good quality. Medium early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Resistant to fire blight.

NJ7--Medium large size, yellow with slight blush, pyriform, smooth texture--not truly buttery, good quality. Medium early blooming in New Jersey. Ripe about with Clapps Favorite. Moderately resistant to fire blight.

NJ8--Medium size, yellow, obtuse pyriform, fine texture but not truly buttery, good quality. Blooms about with Clapps Favorite in New Jersey. Ripe soon after Bartlett. Apparently moderately resistant to fire blight.

NJ9--Medium large size, light yellow, obtuse pyriform, medium fine texture but not buttery, good quality. Blooms with Clapps Favorite in New Jersey. Ripe just before Bartlett. Apparently moderately resistant to fire blight.

NJ5--Medium size, yellow, pyriform, medium fine texture, but not buttery--similar to Clapps Favorite, good quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Maxine--Medium large size, yellow, pyriform, medium fine texture but not buttery, fair quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Moonglow--Medium large size, green, pyriform, medium fine texture--almost buttery, good quality. Blooms just after Clapps Favorite. Ripe soon after Bartlett. Resistant to fire blight.

Rutgers University, Department of Horticulture & Forestry, L. F. Hough. 2/69

Brief Description of
Apples Recommended for Trial Plantings
in Tropical Highlands

NJ44--Medium size, nearly full red, moderately firm, moderately acid (tart). Very early blooming in New Jersey. Ripe about 71 days after bloom in New Jersey.

NJ36--Medium large size, bright 1/2 to 3/4 red, crisp texture, slightly aromatic, good mild flavor. Very early blooming in New Jersey. Ripe about 79 days after bloom in New Jersey.

NJ46--Large size, nearly fully covered with bright red, round conic, medium crisp texture, good mild flavor. Very early blooming in New Jersey. Ripe about 99 days after bloom in New Jersey.

M2439--Medium size, yellow, smooth skin, good texture, good mild flavor. Very early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Mollie's Delicious--Very large size, 1/2 to 3/4 red on creamy white ground color, very good crisp texture, very good mild flavor. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

NJ47--Medium size, 1/2 to 3/4 red on light straw yellow ground color, firm breaking texture, moderately acid, pleasant flavor. Early blooming in New Jersey. Ripe about 147 days after bloom in New Jersey.

Brief Description of
Apricots Recommended for Trial Plantings
in Tropical Highlands

NJA1--Very large size, (up to 2 1/4" in diameter), yellow flesh, firm, good quality. Ripe about 84 days after bloom in New Jersey.

NJA2--Large size, orange flesh, medium firm. Ripe about 77 days after bloom in New Jersey.

NJA4--Very large size, yellow-orange flesh. Ripe about 84 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA5--Medium size (average 1 1/2" in diameter), orange flesh, moderately firm. Ripe about 88 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA6--Medium size, light orange flesh, very firm, moderately dry. Ripe about 88 days after bloom in New Jersey.

NJA8--Large size, yellow, firm. Ripe about 98 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA9--Medium size, orange flesh, medium firm. Ripe about 98 days after bloom in New Jersey.

NJA10--Medium size, attractive blush, orange flesh, firm. Ripe about 106 days after bloom in New Jersey.

NJA11--Medium size, attractive blush, orange flesh, firm, moderately dry. Ripe about 106 days after bloom in New Jersey.

NJA13--Very large size, orange flesh, firm, may crack in rainy weather at harvest. Very early, ripe about 72 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

NJA17--Large size, orange flesh, moderately firm. Very early, ripe about 74 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Phelps--Very large size, creamy white flesh, medium soft flesh. Ripe about 79 days after bloom in New Jersey.

Veecot.--Medium size, orange, medium firm. Ripe about 96 days after bloom in New Jersey.

NJA7--Medium size, light orange, firm, fine texture. Late blooming for apricots in New Jersey. Ripe about 87 days after bloom in New Jersey.

NJA18--Large size, light orange, medium firm. Late blooming for apricots in New Jersey. Ripe about 107 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

Brief Description of
Peaches--Canning Clingstones--Recommended for Trial Plantings
in Tropical Highlands

NJC84--Large size (over 2 1/2" in diameter), yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 103 days after bloom in New Jersey.

NJC85--Very large size (3" diameter), yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey.

NJC11--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

NJC72--Medium size, deep yellow flesh, no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJC81--Large size, yellow flesh, non-melting clingstone peach similar to Babygold varieties. Early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Babygold 5--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 116 days after bloom in New Jersey.

Babygold 6--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Babygold 7--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Brief Description of
Nectarines Recommended for Trial Plantings
in Tropical Highlands

NJN61--Medium size, yellow flesh, moderately firm, freestone, red at pit. Very early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey.

NJN62--Medium large size, yellow flesh, moderately firm, freestone, no red at pit. Very early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN57--Medium large size, yellow flesh, moderately firm, freestone. Early blooming in New Jersey. Early ripening, about 91 days after bloom in New Jersey.

NJN59--Very large size, yellow flesh, moderately firm, partially freestone, slight red at pit. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN60--Very large size, white flesh, red at pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Nectarid 2--Medium large size, yellow flesh, some red at the pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey. More resistant to brown rot than other nectarines.

Nectarid 4--Medium large size, yellow flesh, moderately firm. Early blooming in New Jersey. Ripe about 112 days after bloom in New Jersey.

Nectarid 6--Medium large size, yellow flesh, freestone. Moderately firm. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Brief Description of
Peaches--Freestones--Recommended for Trial Plantings
in Tropical Highlands

NJ238--Medium size, yellow flesh, no red at the pit, tender flesh freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey. Seedling of Flordawon.

NJ239--Medium large size, yellow flesh, some red at the pit, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey.

NJ240--Large size, yellow flesh, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 146 days after bloom in New Jersey.

Sunqueen--Large size, bright yellow flesh, red at pit, firm, freestone. Early blooming in New Jersey. Ripe about 114 days after bloom in New Jersey.

NJ241--Large size, yellow flesh, moderately firm, freestone. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

NJ242--Large size, yellow flesh, moderately firm, freestone, some red at pit. Early blooming in New Jersey. Ripe about 125 days after bloom in New Jersey.

Blake--Very large size, yellow flesh, much red at pit, very firm, freestone. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

Jerseyqueen--Very large size, yellow flesh, red at pit, very firm, freestone. Early blooming in New Jersey. Ripe about 135 days after bloom in New Jersey.

NJ243--Large size, orange flesh, slight red at pit, only partially freestone. Early blooming in New Jersey. Ripe about 143 days after bloom in New Jersey.

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
Department of Horticulture and Forestry
New Brunswick, New Jersey 08903

August 6, 1969

Dr. Wilson Popenoe
Antigua, Guatemala, C.A.

Dear Dr. Popenoe:

I've finally taken time to write down some ideas that I got while I was in Guatemala last fall and this spring. For your information I am enclosing a copy of these observations, an inventory of the test plantings that were established and another copy of the variety descriptions.

I am pleased with the interest that was shown by several good growers in testing several varieties of each species. I am looking forward to following the performance of these varieties during the next few years and, of course, I do hope that you will be able to continue your interest in this work. I feel that it is very fortunate that Eduardo Matheu has taken an interest in this project. Eduardo has impressed me as a very capable young man and his present responsibility as Jefe Proyecto Frutales Deciduos should make it possible for him to watch these plantings more than any of us.

This is a "shotgun" approach I know. When we inventoried our material last winter from the point of view of potential in tropical highlands we found that with every species we had plants of a variety of genotypes and geographic origins that just might grow well. At this point in time I am optimistic that some varieties of each species will be reasonably well adapted somewhere in the Guatemalan highlands. In the case of clingstone peaches, though, I do believe that it should be possible to find trees of criollos in Guatemala or in southern Mexico with good size and quality that would be well adapted.

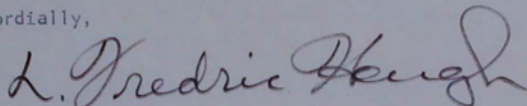
I do agree with the suggestions in your letter last January that it would be good to have some good quality deciduous fruits that would be productive at lower elevations. I would hope that we would find some of the selections in this test that might be parents that we would want to cross with your Key West apple, Ralph Sharpe's Flordawon peach, the Pineapple pear, etc. This is the next step and I propose to work on it.

Dr. Wilson Popenoe - 2

It will be important to know how the scions that we have established harden off for the winter. I presume that Kerns - Ducal will balk a little about my coming again this year. I do hope that you, Eduardo and Hector will have a chance to check this aspect of the test.

I have had some correspondence with commercial nurseries and processing companies who are interested in extending deciduous fruit production in the highlands of central and southern Mexico. I do hope to get some test plantings established in Mexico in the next couple of years. This will give us additional information on the performance of these selections. It will also provide additional support for one or two visits a year to all the tests. Consequently Mrs. Hough and I are confidently looking forward to seeing much more of you and your new family.

Cordially,

A handwritten signature in cursive script that reads "L. Fredric Hough". The signature is written in dark ink and is positioned above the typed name and title.

L. Fredric Hough
Research Professor in Pomology

LFH/gt

Enc.

cc: Ray Dawson

Inventory of Scions of Deciduous Fruits
 Propagated in Test Locations in Guatemala - Spring 1969
 From L.F.Hough, Rutgers University

Test Locations ¹⁾

Selections	Kerns Top- worked	Min. of Agric. Nurs.	Matheu Top- worked	Falla Nurs.	Aspuac Top- worked	Ovalle Nurs.	Carlin Top- worked	Lemus Top- worked	Bianchi Top- worked
APPLES									
NJ44	x	x	x			x			
NJ36	x	x	x	x	x	x	x		
NJ46	x	x	x			x			
M2439	x	x	x	x	x	x	x		
Mollie's Delicious	x	x	x	x	x	x	x		
NJ47	x	x	x			x	x		
PEARS									
NJ10	x		x	x	x		x	x	x
NJ11	x			x	x				x
NJ12	x			x	x				x
Mericourt	x		x	x	x		x	x	x
NJ7	x		x	x					x
NJ8	x			x	x				x
NJ9	x		x	x	x		x	x	x
NJ5	x			x	x		x		x
Maxine	x			x	x				x
Moonglow	x			x	x		x	x	x
PEACHES-freestone									
NJ238	x	x	x	x	x				
NJ239	x	x	x	x	x		x		
NJ240	x	x	x	x	x	x	x		
Sunqueen	x	x	x	x			x		
NJ241	x	x	x	x			x		
NJ242	x	x	x	x		x	x		
Blake	x	x	x	x			x		
Jerseyqueen	x	x	x	x					
NJ243	x	x	x	x			x		

Inventory of Scions of Deciduous Fruits

Selections	Kerns	Min. of Agric.	Matheu	Falla	Aspuac	Ovalle	Carlin	Lemus	Bianchi
PEACHES-clingstone									
NJC84		x							
NJC85	x	x	x	x	x	x	x		
NJC11	x	x	x	x					
Piedmontgold	x	x	x	x					
NJC72	x	x	x	x					
NJC81	x	x	x	x				x	
Babygold 5	x	x	x	x		x		x	
Babygold 6	x	x	x	x					
NECTARINES									
NJN61	x	x	x	x	x				
NJN62	x	x	x	x	x	x		x	
NJN57	x	x	x	x					
NJN59	x	x	x	x					x
NJN60	x	x	x	x		x		x	
Nectared 2	x	x	x	x					
Nectared 4	x	x	x	x					x
Nectared 6	x	x	x	x					x
APRICOTS									
NJA1	x	x	x	x					
NJA2	x	x	x	x	x	x		x	
NJA4	x	x	x	x					
NJA5	x	x	x	x					
NJA6	x	x	x	x					
NJA8	x	x	x	x	x	x		x	
NJA9	x	x	x	x					
NJA10	x	x	x	x					
NJA11	x	x	x	x					
NJA13	x	x	x	x					
NJA17	x	x	x	x					
Phelps	x	x	x	x	x	x			x
Veecot	x	x	x	x					
NJA7	x	x	x	x					
NJA18	x	x	x	x	x	x			x

Test Plantings Guatemala

Mailing Address	Name of Farm
Dr. Robert Vilece or Ing. Hector Murga Alimentos Kern's de Guatemala Km 6.5 Carretera al Atlantico Guatemala City, Guatemala, C.A.	Finca San Joaquin Magdalena Milpas Altas Sacatepequez, Guatemala
Ing. E.A. Matheu Jefe Proyecto Frutales Deciduos Ministerio de Agricultura 19 Calle 12-48, Zona 1 Guatemala, Guatemala, C.A.	Vivero 'Los Aposentos' Los Aposentos, Chimaltenango Guatemala
Ing. E.A. Matheu 4 Avenida 14-56, Zona 10 Guatemala, Guatemala, C.A.	Finca Vista Bella Tecpan, Guatemala
Arturo Falla 15 Calle 'A' 10-62, Zona 10 Guatemala, Guatemala, C.A.	Finca San Sebastian Duenas, Sacatepequez Guatemala
Victor Aspucac Jolon San Bartolome Milpas Altas Sacatepequez, Guatemala	
Hermanos Ovalle Soto Granja Monte Bello Salcaja, Quezaltenango Guatemala, C.A.	
Peter Carlin Labor El Refugio Apartado Postal No. 49 Quezaltenango, Guatemala	
M. Tulio Lemus Farmacia Nueva Quezaltenango, Guatemala	Labor Pena de Oro Cantel, Quezaltenango Guatemala
Alberto E. Bianchi 7a. Calle 2-58, Zona 1 Guatemala, Guatemala, C.A.	Finca Las Vertientes San Jose Pinula Guatemala

Descripción sucinta de manzanas recomendadas para
plantación experimental en terrenos tropicales altos

NJ44--Fruta de tamaño mediano. Piel casi completamente roja. Textura moderadamente firme, moderado sabor ácido. Florece bien temprano en N.J. Madura alrededor de 71 días después de la florescencia en N.J.

NJ36--Fruta de tamaño mediano-grande. Piel de 1/2 a 3/4 rojo brillante. Textura crujiente, ligeramente aromática, de buen y delicado sabor. Florece bien temprano en N.J. Madura alrededor de 79 días después de la florescencia en N.J.

NJ46--Fruta de tamaño grande. Piel casi completamente cubierta de un rojo brillante. Forma cónica-redonda. Textura medianamente crujiente, de buen y delicado sabor. Florece bien temprano en N.J. Madura alrededor de 99 días después de la florescencia en N.J.

M2439--Fruta de tamaño mediano. Piel amarilla, pulida. Buena textura, de buen y delicado sabor. Florece bien temprano en N.J. Madura alrededor de 128 días después de la florescencia en N.J. Con el permiso de J. Crnko, Maribor, Yugoslavia, para su ensayo.

Mollie's Delicious--Fruta de tamaño muy grande. Piel de 1/2 a 3/4 roja sobre un fondo blanco-cremoso. Muy buena textura crujiente, de muy buen y delicado sabor. Florece temprano en N.J. Madura alrededor de 118 días después de la florescencia en N.J.

NJ47--Fruta de tamaño mediano. Piel de 1/2 a 3/4 roja sobre un fondo amarillo pajizo. Textura crujiente. Moderadamente ácida, de sabor agradable. Florece temprano en N.J. Madura alrededor de 147 días después de la florescencia en N.J.

Brief Description of
Apples Recommended for Trial Plantings
in Tropical Highlands

NJ44--Medium size, nearly full red, moderately firm, moderately acid (tart). Very early blooming in New Jersey. Ripe about 71 days after bloom in New Jersey.

NJ36--Medium large size, bright 1/2 to 3/4 red, crisp texture, slightly aromatic, good mild flavor. Very early blooming in New Jersey. Ripe about 79 days after bloom in New Jersey.

NJ46--Large size, nearly fully covered with bright red, round conic, medium crisp texture, good mild flavor. Very early blooming in New Jersey. Ripe about 99 days after bloom in New Jersey.

M2439--Medium size, yellow, smooth skin, good texture, good mild flavor. Very early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey. Made available for testing in Guatemala by J. Crnko, Maribor, Yugoslavia.

Mollie's Delicious--Very large size, 1/2 to 3/4 red on creamy white ground color, very good crisp texture, very good mild flavor. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

NJ47--Medium size, 1/2 to 3/4 red on light straw yellow ground color, firm breaking texture, moderately acid, pleasant flavor. Early blooming in New Jersey. Ripe about 147 days after bloom in New Jersey.

Rutgers University, Department of Horticulture & Forestry, L. F. Hough 2/69

Descripción sucinta de peras recomendados para
plantación experimental en terrenos tropicales altos

NJ10--Fruta de tamaño mediano-grande. Piel amarilla con pequeñas lenticelas bermejizas. Forma obtusa piriforme. Textura crujiente (no suave al paladar) granulosa en el corazón, jugosa. Calidad favorable. Florece temprano en N.J. Madura de 2 a 3 semanas después de Bartlett. Aparente moderada resistencia a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ11--Fruta de tamaño mediano-grande. Piel lisa, dorada-bermeja. Textura crujiente, ligeramente perfumada. Calidad favorable. Florece temprano en N.J. Madura de 2 a 3 semanas después de Bartlett. Susceptible a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ12--Fruta de tamaño muy grande. Piel lisa, dorada-bermeja. Forma redonda. Textura crujiente. Calidad buena. Florece temprano en N.J. Madura 2 a 3 semanas después de Bartlett. Susceptible a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

Meri-court--Fruta de tamaño mediano. Forma piriforme. Textura medianamente uniforme pero no suave al paladar. Muy buena calidad. Florece intermedia en N.J. Madura de 2 a 3 semanas después de Bartlett. Variedad resistente a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ7--Fruta de tamaño mediano-grande, piel amarilla con ligero tinte rosado. Forma piriforme. Textura uniforme pero no suave al paladar. Calidad buena. Florece intermedia en N.J. Madura casi al mismo tiempo de Clapps Favorite. Moderadamente resistente a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ8--Fruta de tamaño mediano. Piel amarilla. Forma obtusa piriforme. Textura fina pero no realmente suave al paladar. Calidad buena. Florece casi al mismo tiempo de Clapps Favorite en N.J. Madura enseguida después de Bartlett. Aparente moderada resistencia a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ9--Fruta de tamaño mediano-grande. Piel amarilla clara. Forma obtusa piriforme. Textura medio fina pero no suave al paladar. Calidad buena. Florece al mismo tiempo de Clapps Favorite en N.J. Madura justamente antes que Bartlett. Aparente moderada resistencia a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

NJ5--Fruta de tamaño mediano. Piel amarilla. Textura medio fina pero no suave al paladar. Similar a Clapps Favorite. Calidad buena. Florece al mismo tiempo de Clapps Favorite. Madura al mismo tiempo de Bartlett. Variedad resistente a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

Maxine--Fruta de tamaño medio-grande. Piel amarilla. Forma piriforme. Textura medio fina pero no suave al paladar. Calidad favorable. Florece al mismo tiempo de Clapps Favorite en N.J. Madura al mismo tiempo de Bartlett en N.J. Variedad resistente a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

Moonglow--Fruta de tamaño medio-grande. Verde. Forma piriforme. Textura medio fina casi jugosa y suave al paladar. Calidad buena. Florece justamente después de Clapps Favorite en N.J. Madura prontamente después de Bartlett en N.J. Variedad resistente a Erwinia amylovora (Burrill) Winslow et al. (Fire Blight)

Brief Description of
Pears Recommended for Trial Plantings
in Tropical Highlands

NJ10--Medium large size, yellow with small russet lenticels, obtuse pyriform, medium crisp texture (not buttery), some stone cells at the core, juicy, fair quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Apparently moderately resistant to fire blight.

NJ11--Medium large size, smooth golden russet, crisp texture, fair quality--slightly perfumed. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

NJ12--Very large size, smooth golden russet, round, crisp texture, good quality. Early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Susceptible to fire blight.

Mericourt--Medium size, yellow, pyriform, medium smooth texture but not truly buttery, very good quality. Medium early blooming in New Jersey. Ripe 2 to 3 weeks after Bartlett. Resistant to fire blight.

NJ7--Medium large size, yellow with slight blush, pyriform, smooth texture--not truly buttery, good quality. Medium early blooming in New Jersey. Ripe about with Clapps Favorite. Moderately resistant to fire blight.

NJ8--Medium size, yellow, obtuse pyriform, fine texture but not truly buttery, good quality. Blooms about with Clapps Favorite in New Jersey. Ripe soon after Bartlett. Apparently moderately resistant to fire blight.

NJ9--Medium large size, light yellow, obtuse pyriform, medium fine texture but not buttery, good quality. Blooms with Clapps Favorite in New Jersey. Ripe just before Bartlett. Apparently moderately resistant to fire blight.

NJ5--Medium size, yellow, pyriform, medium fine texture, but not buttery--similar to Clapps Favorite, good quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Maxine--Medium large size, yellow, pyriform, medium fine texture but not buttery, fair quality. Blooms with Clapps Favorite in New Jersey. Ripe with Bartlett. Resistant to fire blight.

Moonglow--Medium large size, green, pyriform, medium fine texture--almost buttery, good quality. Blooms just after Clapps Favorite. Ripe soon after Bartlett. Resistant to fire blight.

Rutgers University, Department of Horticulture & Forestry, L. F. Hough. 2/69

Descripción sucinta de melocotones de hueso libre recomendados para
plantación experimental en terrenos tropicales altos

NJ238--Fruta de tamaño mediano, pulpa amarilla sin coloración roja alrededor del hueso. Pulpa tierna, melocotón de hueso libre. Florece bien temprano en N.J. Madura alrededor de 108 días después de la florescencia en N.J. Progenie de polen de Flordawon.

NJ239--Fruta de tamaño mediano-grande, pulpa amarilla con alguna coloración roja alrededor del hueso, moderadamente firme. Melocotón de hueso libre. Florece bien temprano en N.J. Madura alrededor de 108 días después de la florescencia en N.J.

NJ240--Fruta de tamaño grande, pulpa amarilla, moderadamente firme. Melocotón de hueso libre. Florece bien temprano en N.J. Madura alrededor de 146 días después de la florescencia en N.J.

Sunqueen--Fruta de tamaño grande, pulpa amarillo brillante, coloración roja alrededor del hueso, firme. Melocotón de hueso libre. Florece temprano en N.J. Madura alrededor de 114 días después de la florescencia en N.J.

NJ241--Fruta de tamaño grande, pulpa amarilla, moderadamente firme. Melocotón de hueso libre. Florece temprano en N.J. Madura alrededor de 128 días después de la florescencia en N.J.

NJ242--Fruta de tamaño grande, pulpa amarilla con alguna coloración roja alrededor del hueso, moderadamente firme. Melocotón de hueso libre. Florece temprano en N.J. Madura alrededor de 125 días después de la florescencia en N.J.

Blake--Fruta de tamaño muy grande, pulpa amarilla, bastante coloración roja alrededor del hueso, muy firme. Melocotón de hueso libre. Florece temprano en N.J. Madura alrededor de 128 días después de la florescencia en N.J.

Jerseyqueen--Fruta de tamaño muy grande, pulpa amarilla, roja alrededor del hueso, muy firme. Melocotón de hueso libre. Florece temprano en N.J. Madura alrededor de 135 días después de la florescencia en N.J.

NJ243--Fruta de tamaño grande, pulpa anaranjada, ligeramente roja alrededor del hueso, muy firme. Melocotón de hueso parcialmente libre. Florece temprano en N.J. Madura alrededor de 143 días después de la florescencia en N.J.

Brief Description of
Peaches--Freestones--Recommended for Trial Plantings
in Tropical Highlands

NJ238--Medium size, yellow flesh, no red at the pit, tender flesh freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey. Seedling of Flordawon.

NJ239--Medium large size, yellow flesh, some red at the pit, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 108 days after bloom in New Jersey.

NJ240--Large size, yellow flesh, moderately firm, freestone. Very early blooming in New Jersey. Ripe about 146 days after bloom in New Jersey.

Sunqueen--Large size, bright yellow flesh, red at pit, firm, freestone. Early blooming in New Jersey. Ripe about 114 days after bloom in New Jersey.

NJ241--Large size, yellow flesh, moderately firm, freestone. Early blooming in New Jersey. Ripe about 128 days after bloom in New Jersey.

NJ242--Large size, yellow flesh, moderately firm, freestone, some red at pit. Early blooming in New Jersey. Ripe about 125 days after bloom in New Jersey.

Blake--Very large size, yellow flesh, much red at pit, very firm, freestone. Early blooming in New Jersey.

Jerseyqueen--Very large size, yellow flesh, red at pit, very firm, freestone. Early blooming in New Jersey. Ripe about 135 days after bloom in New Jersey.

NJ243--Large size, orange flesh, slight red at pit, only partially freestone. Early blooming in New Jersey. Ripe about 143 days after bloom in New Jersey.

Brief Descriptions of
Peaches--Canning Clingstones--Recommended for Trial Plantings
in Tropical Highlands

NJC84--Large size (over 2 1/2" in diameter), yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 103 days after bloom in New Jersey.

NJC85--Very large size (3" diameter), Yellow flesh, no red at pit, non-melting clingstone peach. Very early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey.

NJC11--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 118 days after bloom in New Jersey.

Piedmontgold--Large size, yellow flesh, practically no red at the pit. Best quality of the non-melting clingstone peaches when processed. Early blooming, a little earlier than Babygold 5. Ripe about 128 days after bloom in New Jersey.

NJC72--Medium size, deep yellow flesh, no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJC81--Large size, yellow flesh, non-melting clingstone peach similar to Babygold varieties. Early blooming in New Jersey. Ripe about 110 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Babygold 5--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 116 days after bloom in New Jersey.

Babygold 6--Large size, yellow flesh, practically no red at the pit, non-melting clingstone peach. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Descripción sucinta de melocotones duros, para conservas, de hueso adherido recomendados para plantación experimental en terrenos tropicales altos

NJC84--Fruta de tamaño grande (mas de 2 1/2" de diametro), pulpa amarilla sin coloración roja alrededor del hueso. Melocotón duro de hueso adherido. Florece bien temprano en N.J. Madura alrededor de 103 días después de la florescencia en N.J.

NJC 85--Fruta de tamaño bien grande, (hasta 3" de diametro), pulpa amarilla, sin coloración roja alrededor del hueso. Melocoton duro de hueso adherido. Florece bien temprano en N.J. Madura alrededor de 110 días después de la florescencia en N.J.

NJC11--Fruta de tamaño grande, pulpa amarilla, practicamente sin coloración roja alrededor del hueso. Melocotón duro de hueso adherido. Florece temprano en N.J. Madura alrededor de 118 días después de la florescencia en N.J.

Piedmontgold--Fruta de tamaño grande, pulpa amarilla, practicamente sin coloración roja alrededor del hueso. La mejor calidad de los melocotones duros de hueso adherido, cuando es procesado. Florece temprano, un poco antes que Babygold 5 en N.J. Madura alrededor de 128 días después de la florescencia en N.J.

NJC72--Fruta de tamaño mediano, pulpa amarilla intensa, sin coloración roja alrededor del hueso. Melocoton duro de hueso adherido. Florece temprano en N.J. Madura alrededor de 102 días después de la florescencia en N.J.

NJC81--Fruta de tamaño grande, pulpa amarilla. Melocotón duro de hueso adherido similar a las variedades Babygold. Florece temprano en N.J. Madura alrededor de 110 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson. (Mancha bacteriana de hoja.)

Babygold 5--Fruta de tamaño grande, pulpa amarilla, practicamente sin coloración roja alrededor del hueso. Melocotón duro de hueso adherido. Florece temprano en N.J. Madura alrededor de 116 días después de la florescencia en N.J.

Babygold 6--Fruta de tamaño grande, pulpa amarilla, practicamente sin coloración roja alrededor del hueso. Melocotón duro de hueso adherido. Florece temprano en N.J. Madura alrededor de 121 días después de la florescencia en N.J.

Rutgers University, Department of Horticulture and Forestry. L.F. Hough. 2/69

Brief Description of
Nectarines Recommended for Trial Plantings
in Tropical Highlands

NJN61--Medium size, yellow flesh, moderately firm, freestone, red at pit. Very early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey.

NJN62--Medium large size, yellow flesh, moderately firm, freestone, no red at pit. Very early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN57--Medium large size, yellow flesh, moderately firm, partially freestone. Early blooming in New Jersey. Early ripening, about 91 days after bloom in New Jersey.

NJN59--Very large size, yellow flesh, moderately firm, partially freestone, slight red at pit. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey.

NJN60--Very large size, white flesh, red at pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 105 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Nectar 2--Medium large size, yellow flesh, some red at the pit, moderately firm, partially freestone. Early blooming in New Jersey. Ripe about 102 days after bloom in New Jersey. More resistant to brown rot than other nectarines.

Nectar 4--Medium large size, yellow flesh, moderately firm. Early blooming in New Jersey. Ripe about 112 days after bloom in New Jersey.

Nectar 6--Medium large size, yellow flesh, freestone. Moderately firm. Early blooming in New Jersey. Ripe about 121 days after bloom in New Jersey.

Descripción sucinta de nectarinos recomendados para
plantación en terrenos tropicales altos

NJN61--Fruta de tamaño mediano. Pulpa amarilla, moderadamente firme, rojo alrededor del hueso. Nectarino de hueso libre. Florece bien temprano en N.J. Madura alrededor de 105 días después de la florescencia en N.J.

NJN62--Fruta de tamaño mediano-grande. Pulpa amarilla, moderadamente firme sin coloración roja alrededor del hueso. Nectarino de hueso libre. Florece bien temprano en N.J. Madura alrededor de 102 días después de la florescencia en N.J.

NJN57--Fruta de tamaño mediano-grande. Pulpa amarilla, moderadamente firme. Nectarino de hueso parcialmente libre. Florece y madura temprano en N.J. Madura alrededor de 91 días después de la florescencia en N.J.

NJN59--Fruta de tamaño muy grande. Pulpa amarilla, ligeramente roja alrededor del hueso, moderadamente firme. Nectarino de hueso parcialmente libre. Florece temprano en N.J. Madura alrededor de 102 días después de la florescencia en N.J.

NJN60--Fruta de tamaño muy grande. Pulpa blanca, roja alrededor del hueso, moderadamente firme. Nectarino de hueso parcialmente libre. Florece temprano en N.J. Madura alrededor de 105 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson (Mancha bacteriana de la hoja.)

Nectared 2--Fruta de tamaño mediano-grande. Pulpa amarilla, ligeramente roja alrededor del hueso, moderadamente firme. Nectarino de hueso parcialmente libre. Florece temprano en N.J. Madura alrededor de 102 días después de la florescencia en N.J. Más resistente a Sclerotinia fruticola (Wint.) Rehm. (podredumbre de la fruta), que otros nectarinos.

Nectared 4--Fruta de tamaño mediano-grande. Pulpa amarilla, moderadamente firme. Nectarino de hueso libre. Florece temprano en N.J. Madura alrededor de 121 días después de la florescencia en N.J.

Nectared 6--Fruta de tamaño mediano-grande. Pulpa amarilla, moderadamente firme. Nectarino de hueso libre. Florece temprano en N.J. Madura alrededor de 121 días después de la florescencia en N.J.

Brief Description of
Apricots Recommended for Trial Plantings
in Tropical Highlands

NJA1--Very large size, (up to 2 1/2" in diameter), yellow flesh, firm, good quality. Ripe about 84 days after bloom in New Jersey.

NJA2--Large size, orange flesh, medium firm. Ripe about 77 days after bloom in New Jersey.

NJA4--Very large size, yellow-orange flesh. Ripe about 84 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA5--Medium size (average 1 1/2" in diameter), orange flesh, moderately firm. Ripe about 88 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA6--Medium size, light orange flesh, very firm, moderately dry. Ripe about 88 days after bloom in New Jersey.

NJA8--Large size, yellow, firm. Ripe about 98 days after bloom in New Jersey. Resistant to bacterial leaf spot.

NJA9--Medium size, orange flesh, medium firm. Ripe about 98 days after bloom in New Jersey.

NJA10--Medium size, attractive blush, orange flesh, firm. Ripe about 106 days after bloom in New Jersey.

NJA11--Medium size, attractive blush, orange flesh, firm, moderately dry. Ripe about 106 days after bloom in New Jersey.

NJA13--Very large size, orange flesh, firm, may crack in rainy weather at harvest. Very early, ripe about 72 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

NJA17--Large size, orange flesh, moderately firm. Very early, ripe about 74 days after bloom in New Jersey. Resistant to bacterial leaf spot.

Phelps--Very large size, creamy white flesh, medium soft flesh. Ripe about 79 days after bloom in New Jersey.

Veecot--Medium size, orange, medium firm. Ripe about 96 days after bloom in New Jersey.

NJA7--Medium size, light orange, firm, fine texture. Late blooming for apricots in New Jersey. Ripe about 87 days after bloom in New Jersey.

NJA18--Large size, light orange, medium firm. Late blooming for apricots in New Jersey. Ripe about 107 days after bloom in New Jersey. Moderately susceptible to bacterial leaf spot.

Descripción sucinta de albaricoques recomendados para
plantación experimental en terrenos tropicales altos

NJA1--Fruta de tamaño muy grande (hasta 2 1/4" de diámetro), pulpa amarilla, firme. Albaricoque de buena calidad. Madura alrededor de 84 días después de la florescencia en N.J.

NJA2--Fruta de tamaño grande, pulpa anaranjada, medianamente firme. Madura alrededor de 77 días después de la florescencia en N.J.

NJA4--Fruta de tamaño muy grande, pulpa amarillo-naranja. Madura alrededor de 84 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson (Mancha bacteriana de la hoja.)

NJA5--Fruta de tamaño mediano (promedio 1 1/2" diámetro), pulpa anaranjada, medianamente firme. Madura alrededor de 88 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson (Mancha bacteriana de la hoja.)

NJA6--Fruta de tamaño mediano, pulpa anaranjada clara, muy firme, moderadamente seca. Madura alrededor de 88 días después de la florescencia en N.J.

NJA8--Fruta de tamaño grande, pulpa amarilla, firme. Madura alrededor de 98 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson. (Mancha bacteriana de la hoja.)

NJA9--Fruta de tamaño mediano, pulpa anaranjada, medianamente firme. Madura alrededor de 98 días después de la florescencia en N.J.

NJA10--Fruta de tamaño mediano, de atractivo tinte rosado. Pulpa anaranjada, firme. Madura alrededor de 106 días después de la florescencia en N.J.

NJA11--Fruta de tamaño mediano, de atractivo tinte rosado. Pulpa anaranjada, firme, moderadamente seca. Madura alrededor de 106 días después de la florescencia en N.J.

NJA13--Fruta de tamaño muy grande. Pulpa anaranjada, firme. Puede agrietarse con tiempo lluvioso en época de cosecha. Muy temprano, madura alrededor de 72 días después de la florescencia en N.J. Moderadamente susceptible a Xanthomonas pruni (E.F.S.) Dowson. (Mancha bacteriana de la hoja.)

NJA17--Fruta de tamaño grande. Pulpa anaranjada, moderadamente firme. Muy temprano madura alrededor de 74 días después de la florescencia en N.J. Variedad resistente a Xanthomonas pruni (E.F.S.) Dowson. (Mancha bacteriana de la hoja.)

Phelps--Fruta de tamaño muy grande, pulpa blanco-cremosa, medianamente tierna. Madura alrededor de 79 días después de la florescencia en N.J.

Veecot--Fruta de tamaño mediano. Pulpa anaranjada, medianamente firme. Madura alrededor de 96 días después de la florescencia en N.J.

NJA7--Fruta de tamaño mediano. Pulpa anaranjada-clara, firme, textura fina. Florece tardío con respecto a los albaricoques de N.J. Madura alrededor de 87 días después de la florescencia en N.J.

NJA18--Fruta de tamaño grande, pulpa anaranjada-clara, medianamente firme. Florece tardío con respecto a los albaricoques de N.J. Madura alrededor de 107 días después de la florescencia en N.J. Moderadamente susceptible a Xanthomonas pruni (E.F.S.) Dowson. (Mancha bacteriana de la hoja.)

Rutgers University, Department of Horticulture & Forestry. L. F. Hough 2/69

Antigua, Guatemala, 26 August 1969

Dr. L. Fredric Hough
Dept of Horticulture and Forestry
Rutgers University
New Brunswick, New Jersey.

Dear Fred:

Your letter and much interesting material arrived just after I had spent several days in the highlands making notes on this year's crop of apples and pears, hence this is an opportune moment to reply. I am extremely interested in everything you sent. You have done a magnificent job of introducing new material and lining up the program. I want to comment at some length on your "Observations" but will run thru your letter first and make a few comments on it.

I will say first, however, that I saw the nursery at Aposentos where much of your material is growing. They were quite successful with the grafting. I have not seen, as yet, the nurseries at Finca San Joaquin (Kerns), nor the Ovalle place at Salcajá nor Carlin's at Quezaltenango nor Alberto Bianchi's place at San José Pinula.

I am sorry to say (from our point of view, not his) that Eduardo Matheu is planning to leave for California next month to take an advanced degree at Davis. You probably have heard from him about this. I think he has been the most valuable man in the picture, to date, and his absence is going to handicap your work considerably, I fear. But we can't do anything about it and I am delighted that Eduardo is going to a place where he is going to get a lot of experience, in the field, with those fruit trees in which we are interested.

It is going to be difficult to get the men involved in the program

to make frequent notes on the behavior of your material and to get the meteorological observations which should be obtained. I know this from long experience; some 25 years ago when I was Advisor to the Minister of Agriculture he became interested in getting temperature and rainfall records from a wide range of stations in the highlands as well as the lowlands. Some equipment was supplied. We failed to get continuity, except for records at the railroad stations, United Fruit farms, and from a few finqueros.

I hope you will be able to come down twice a year. It will help to keep the cooperators interested and on the job. I myself will be happy to help in every way I can. One of the problems is going to be this: Very few horticulturists here have had experience in orchard management, that is, taking good care of fruit trees. When the government talked about starting a large and very expensive program of apple development three or four years ago I told them money, that is, the purchase of thousands of trees, would not do the job. There are not ten men in Guatemala who have had experience in developing good fruit orchards. We did not know what varieties to plant in what places (this you bring out in your memorandum, to which I will refer again); and we are pretty ignorant as to the matter of rootstocks, both for apples and pears. Peaches and plums don't worry us too much; we can handle them pretty well, but unfortunately plums are not of great importance, and we will not do a great deal with peaches until we have selected local seedlings of the "canning cling" type and by trial and error, developed varieties which are more productive than most of the seedlings with which I have worked so far. In the end, I believe we can develop quite a business in this field.

But to proceed to the main subject of this letter: That splendid and highly valuable memorandum of yours, "Observations on Selected Fruit Cotes" and so on. This absolutely must be put into Spanish and distri-

uted widely, not only here in Guatemala but I would add, in several other tropical American countries. This could be accomplished through two or three journals, such as the Revista de Agricultura in Costa Rica (where, however, I cannot see a great future for the temperate zone fruits with the possible exception of peaches).

With a view to such publication, I am returning the copy you sent me with some comments. I hope you will not feel me presumptuous. I am making these comments primarily to prevent any feeling on the part of local técnicos that the gringos have a superiority complex - or something like that. I think you will understand.

In the first place, I would leave out the first two paragraphs. For example, you say that you believe there are many good sites in the Guatemalan highlands where a few, or several, varieties of deciduous fruits could be grown profitably. They may say, Haven't we known that for a long time? Aren't we already growing apples and pears profitably in several places?

That paragraph on Importance of site selection is extremely valuable, because many people fail to realize that a microclimate is so often the key to success or failure. You make it clear that the success of a given variety at 7500 feet, for example, does not guarantee that it will be successful somewhere else at 7500 feet. This fact must be driven home. Otherwise, many mistakes will be made.

It is important to drive home, as you have done, that we can not be guided by that 45 degree business. Some of us have come to realize this; others who read the Northern literature must be told.

Incidentally, that Salcajá peach is a mystery to me. If I recall correctly, Oscar Ovalle says it is a hybrid which he made between Elberta and a local peach. As far as I can learn, no Elberta has ever fruited in Guatemala.

The recommendations for Evaluation must be hammered home time and again, for as I have noted earlier in this letter, we rarely obtain continuity in matters of this sort over a sufficient period of time. It is well worth while to disseminate data of this sort - an ideal program, the only kind of program which can give us indispensable information in minimum time.

I know that you will realize why I make these suggestions, but I want to add that you will not hurt my feelings if you do not accept them. The one thing I urge is that you make the memorandum available as widely as possible. I believe I might be able to help you arrange this - though perhaps you have someone else in mind.

In the near future I expect to be getting around to some more of the places where you left material and I will try to check up a bit so that I can tell you a little more about our progress.

Best regards to the señora and your goodself.

Faithfully yours,

Wilson Popenoe

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
Department of Horticulture and Forestry
New Brunswick, New Jersey 08903

December 12, 1969

Dr. Wilson Popenoe
Antigua
Guatemala, C. A.

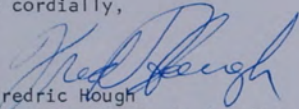
Dear Dr. Popenoe:

I do want to thank you for your good letters. I hope there will be something in some of the tests that will be worthy of your continuing interest. Ray Dawson said he was going to try to get Kerns-Ducal to help on your expenses if you were able to take time to make some observations on this material.

I'm glad Eduardo Matheu has started graduate work. I felt that he really was interested in the possibility of developing a deciduous fruit industry in the highlands. Of course, he will be even more effective in supporting and directing such an industry after he gets additional academic training. But I agree that we certainly will miss him during the next couple of years. (Of course, I do wish that Eduardo could be persuaded to spend some part of his graduate study with me.)

Mrs. Hough and I are leaving next January for nine months in eastern Europe, principally in Romania. I do hope that I will be able to see you soon after we return from Europe. By next fall it should be pretty obvious which selections are going to grow in Guatemala. And by the summer of 1971 we should see some fruits on many. After we have a little information about the performance of these different genotypes I really would like to collaborate with you in presenting a paper in Spanish about this work.

Very cordially,


L. Fredric Hough
Research Professor in Pomology

LFH/gt

December 16, 1969

Dr. Cecil Stushnoff
Dept. of Hort. Science
University of Minnesota
St. Paul, Minn. 55101

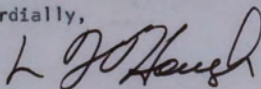
Dear Cecil:

I'm glad to know that you will be able to spend some time in South America this winter. I hope that you can plan to spend a day or two in Guatemala on your way home. There are 55 varieties of pears, apples, peaches, and apricots from Rutgers that were grafted at several places in Guatemala last spring. Dr. Wilson Popenoe, Antigua, Guatemala helped me select the sites and he has been looking at them this fall. It would be good if you could see some of these plantings with Dr. Popenoe early next spring. For your information I am enclosing descriptions of the varieties that we have established, an inventory of the plantings and a copy of my report which gives some ideas about the possibilities for deciduous fruit growing in tropical highlands.

If you are in Peru try to find out as much as you can about the extreme southeastern region. There should be areas there that are almost identical to Guatemala in latitude, elevation and climate. If some of the Rutgers varieties do well in Guatemala I want to see them tried in southeastern Peru.

Good traveling!

Cordially,



L. Fredric Hough
Research Professor in Pomology

LFH/gt

Enc.

cc: Dr. Wilson Popenoe ✓

Antigua, Guatemala 19 Nov 1972

Prof. J. Fred Hough
Rutgers University
New Brunswick, New Jersey

Dear Fred:

Yesterday I was up at Arturo Fall's place, Concepcion, 6900 feet. He has just topworked a batch of 8 yr old Baldwins which I got for him, and which have not looked too promising, to Packham's Triumph Mericourt, Maxine, Surprise, and here's the point: about 7 or 8 of the NJ numbers which you brought when you came down here. Looking up the "Brief Descriptions of Pears Recommended for Trial Planting" we do not find any notes regarding the genetic origin of these NJ numbers. We are wondering if these NJ numbers have some oriental blood, or if they are straight communis. We don't know that you can give us the whole story - if you can, we will send the numbers of the ones which are doing well here.

I have not been able to check, as yet, on the material you brought which is growing in other places. Eduardo Matheu has dropped out of fruit work, after having gone to Davis for two years to specialize in Pomology. Material given to the Ministerio de Agricultura has gone out of sight as was to be expected. During the next few months I will see if I can get any information at all. We are having trouble with the new Florida peaches and Nectarines; they grow beautifully, bear two good crops, and then stop bearing.

When are you coming down again? I hope I will be here.

Faithfully yours,

COLLEGE OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
Department of Horticulture and Forestry
New Brunswick, New Jersey 08903
P.O. Box 231

January 16, 1973

Dr. Wilson Popenoe
Antigua, Guatemala, C.A.

Dear Dr. Popenoe:

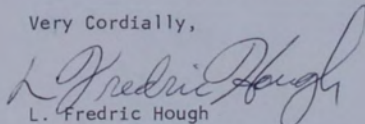
I expect to be in Guatemala City all day Tuesday, February 20. I plan to stay at the Hotel Pan American. This will be just a stopover on my way back from Brazil. If it will be possible for you or Arturo Falla to see me, leave word at the hotel. I have written to Eduardo Matheu and I hope to see him, too, on Tuesday.

I am enclosing information on the parentage of the pears that I brought down to Guatemala in 1969. I am still very much interested in the performance of these varieties in Guatemala and I do hope something will prove to be useful. I am glad to know that Arturo Falla has increased the pears.

Sometime within the next few years I'd really like to get down during harvest time and see fruit, hopefully on several varieties.

I truly wish I could stay longer this trip. I do want to make the most of the one day. I'll be coming in on Pan American #516 Monday night and be leaving on the Pan Am 502 Tuesday night for Mexico.

Very Cordially,


L. Fredric Hough
Research Professor
in Pomology

sah