

Promising Fruits of the Philippines

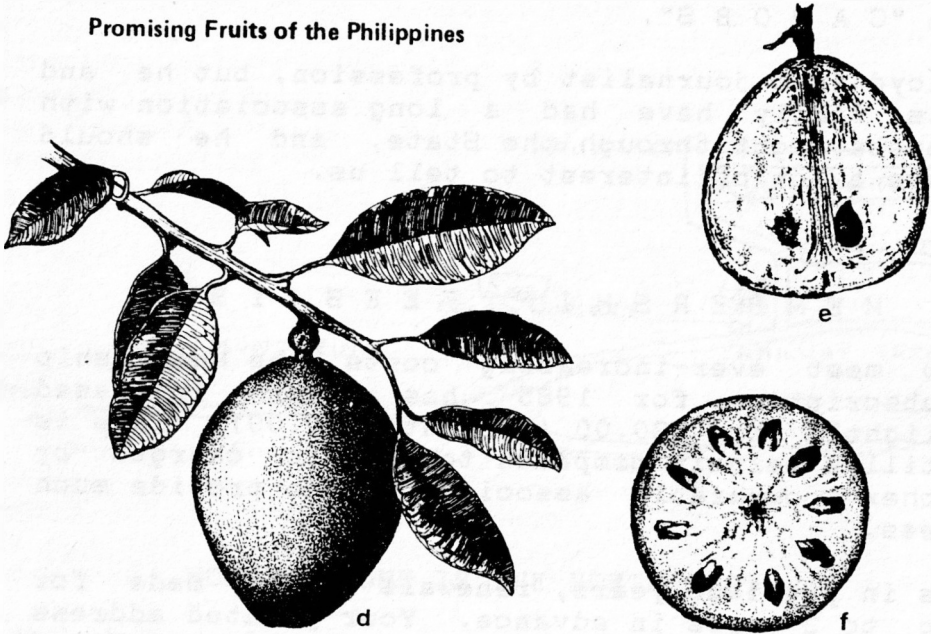


Fig. 4.1. Caimito (*Chrysophyllum cainito* L.).

INDEX

ASSOCIATION INFORMATION
AGRICULTURE 2000
MEMBERS CORNER
PROMISING FRUITS
OF THE PHILIPPINES

SNIPPITS
CALIFORNIA CITRUS THREAT
ORCHARD TRANSPLANT

MEMBERS' CORNER

NEXT MEETING

At the next General Meeting (our AGM) on November 7, we are fortunate in having as speaker Mr Lloyd Marshall, who will be speaking on "C A R O B S".

Lloyd is a journalist by profession, but he and his family have had a long association with Carobs right through the State, and he should have a lot of interest to tell us.

M E M B E R S H I P F E E S 1 9 8 5

To meet ever-increasing costs, the Membership Subscription for 1985 has been increased slightly to \$20.00 (Students \$10.00). This is still a bargain compared to what is charged by other comparable associations who provide much less.

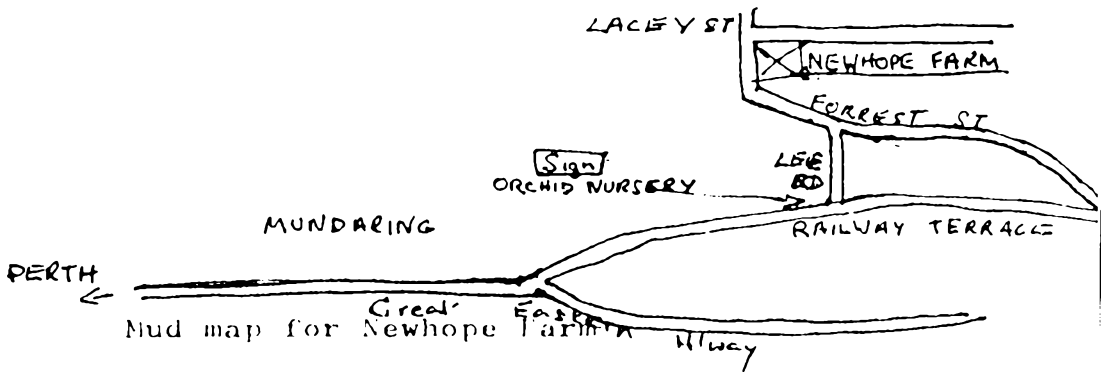
As in previous years, renewals can be made for up to 3 years in advance. Your printed address label has your last paid-up membership year at the top right.

EXECUTIVE COMMITTEE ELECTIONS

In accordance with the bye-laws, five members of the Executive Committee retire at the end of 1984. The elections will be held at the AGM on November 7. Lois Evans will not re-nominate this year, and we may be short a member, so please consider nominating for the Committee.

PERMACULTURE ASSOCIATION FIELD DAY

A field day not to be missed will be held on SATURDAY OCTOBER 27th at Newhope Farm, Sawyers Valley, where Norma & Bob Woodward, using organic systems, raise fruit trees, nut trees, and proteas on about 30 acres. A tour of the property will take about 2 hours starting at 1.15 pm. It is suggested that visitors make a picnic lunch of the occasion from 12.00 to 1.00 pm. Mud map below.



HORTICULTURE IN THE NORTH-WEST

The W.A. Department of Agriculture has recently issued a new 26-page booklet with the title 'Horticultural Research and Development in North-West Australia'. This is a report from a 3-day meeting held at the Kununurra Regional Office, and is edited by WANATCA member Bruce Toohill. Copies can be obtained free by writing to him at the Ag. Dept Kununurra Office, address Kununurra WA 6743.

FROM THE ORGANIC GROWERS

A G R I C U L T U R E 2 0 0 0

A conference/festival under the above title will be hosted by the Organic Growers Association of WA at Kelmscott Senior High School from 10 am to 5 pm on the weekend of November 10-11. This is a wide-ranging event, with speakers on such things as bee, herb, and worm farming, and aboriginal methods, as well as traditional broadacre farming and tree crops.

David Noel will be presenting a paper called 'Home-Acre Farming : Land Use for Our Times' on the Sunday, and will also have nut and fruit trees from the 'Spreading Chestnut' and books from 'Granny Smith's Bookshop' available for sale all weekend.

On Friday November 9, OGWA have a separate agricultural conference at Muresk Agricultural College (cost \$10) from 1-8 pm. This and the above conference have as lead speaker Professor Hardy Vogtmann, an expert on sustained agriculture. Details: Yvonne Swindell, 383.2884.

STONEVILLE RESEARCH STATION FIELD DAY

On Friday October 26, the WA Agriculture Department are having a Field Day at Stoneville with the title 'Chemical Sense makes Orchard Dollars'. Confirm proposed attendance by phoning (09)295.1137 please.

6th Oct, 1984.

Dear David,


Glad to hear the Melbourne Conference went well. I would have liked to have attended but couldn't make it. The last issue of Quandong (April 27) reached me in August, almost 4 months later. It must have gone by way of the South Pole to take so long. Anyway I note you were negotiating with some government agency for help of some kind. I sincerely hope you do not become involved. My experience has been that you get very little accomplished when dealing with government of any sort. You are doing wonderful work there without a big budget but are getting results out of all proportion to what you spend. By being independent you can write your own ticket without some government entity telling you what you can do. You get enough interference in the normal course of events from government without asking for more. Maybe it is different in W.A. and you can swing it. I so if that is the course you choose to pursue. In any event I will give you any support I can on a long distance basis. Keep up the excellent work you are doing.

I have started several times to work on a Macadamia book but just don't seem to have enough push to get it out. Maybe next year.

Best Regards,
Sincerely Paul

PAUL W THOMSON
4339 HOLLY LANE
BONSALL, CA 92003

PHOENIX SEEDS



OUR NEW
MAIL-ORDER
CATALOGUE
IS FREE!

FREE

We specialise in NON-HYBRID SEEDS
(Vegetables, Herbs and Trees) — over 240 varieties!

Please send me a FREE copy of the
NEW PHOENIX SEED CATALOGUE now

NAME

ADDRESS

Postcode

SEND TO: PHOENIX SEEDS, P.O. BOX 9, STANLEY, TAS 7331 a1

Fruitations-

We are in the process of compiling our inventory of plants with code that determines for the user whether said material is available and in what form. We have over 1,000 species planted-- about 200 being palatable edibles.

A few items kicking around at the moment that will be ready for spring incl. ~~Myrciaria~~ Myrciaria cauliflora, Psidium guineense, Sterculia foetida, and on and on. As is: in our collection there are 22 cvs of Casimiroa, 28 cvs Pecan, 12 Lychee, etc.

I would like to see your plant list if there is such an item.

I am HOT to acquire:

Araucaria araucana (4 plants)

Gevuina avellana-- had one doing great but died out rotrot? too much ~~xx~~ chook poop?? who knows for sure but want a beaut tree.

Highland Pandanus spp.-- esp. the PNG ones

Sterculia ~~murex~~

and of course about 3,163 others.

Just got my hand on first nuts of Heartnut-- and how fantastic easy to crack into those whole or half moon pieces

Do you want any scions to a bearing seedling of Carya ovata?

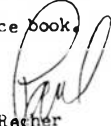
Do you want plants or seed of Sclerocarya caffra? I can get unlimited amt. Growing vegetatively well for us and rumour has it they fruit during the wet in Africa so I have renewed hopes of fruiting them here w/o a full scale war of fungicide.

After several years of minor ~~at~~ tasting in the tropics and here, I have finally developed a great liking for Spondias dulcis. Now I bet I will be able to comprehend the Asian liking for green mangoes. The Spondias being a definite combo of green mango and cooking apple. Give me a chew fruit for a change....

Please list our name in your nursery source book.

AMY & PAUL RECHER
FRUIT SPIRIT
DORROUGHBY, N.S.W.
AUSTRALIA. 2480

Tree fully,


Paul Recher

(07) 200-1272.

L. & W. Higgins,

Lot 6, Hunter Road,

GREENBANK, Q. 4124

7/9/84.

Ms. Lorna Budd,
Secretary/Treasurer,
West Australian Nut and Tree
Crop Assn.,
Box 27, P.O.,
SUBIACO, W.A. 6008

Dear Lorna,

Attached is our cheque for \$30.00 to cover subscription to the above for 1984 and 1985. Kept forgetting about it, but got around to it at last, so I guess that is better than not at all !!!

It may interest you to know that I am the Hon. Secretary of the Brisbane Branch of the Rare Fruit Council of Australia, which is based in Cairns, Nth. Qld. Cairns is the Head Branch, so to speak, and then there are "sub-branches" in different towns, cities, etc. all over Aust. depending on the interest in Fruit Growing for that particular area. Brisbane Branch isn't very big yet as this is only our second year, however the interest is increasing so here's hoping. We have our meetings on the first Wednesday of each month, and have a guest speaker at each meeting, who talks on such subjects as budding and grafting, soils, fertilizers, different fruit trees, pollination, packing for market, etc. We also go on Field Trips to different nurseries, orchards, etc.

The tapes we received from you early in the year on the W.A. Nut & Tree Crop Conference really had special meaning to us, especially the ones from Brian Cull at the Maroochy Research Station at Nambour, as we had been on a Field Trip to this Research Station with the R.F.C.A. in November, 83 so therefore while he was describing the sites, growth, etc. of the Custard Apples and Macadamias, etc. we could see it in our minds and had a pretty clear picture of what he was talking about. We have been in touch with Mr. Cull and is he in the process of arranging to have the slides duplicated that went with his lectures so we will be able to look at them while we have the tapes playing. Should give us a much better idea of it all.

Attached is a post card with a display of tropical fruits which was photographed by a member from Cairns Branch. Thought you might like it. We also have this photograph in an enlarged poster size on glossy paper approx. 2' x 3'. This would be \$6.00 incl. P. & P. The poster size has everything numbered on the back and tells you what everything is.

The Qld. Dept. of Primary Industries has a new book out on Tropical Fruit Trees which is supposed to have everything in that opens and shuts. Approx. \$20.00 ea. but can't remember the P. & P. as I haven't the book list with me at the moment. They also have one on Plant Diseases of Fruit & Veggies. which is very good. It lists all the diseases accompanied by coloured photos of the disease on the fruit so you really get a good idea of what it is like. They are also bringing one out on Insect Pests of Fruit & Veggies. I will send you a copy of the book list separately.

7/9/84.

The Permaculture Group at Nambour have also put out a Chart on Tropical Fruits (90 odd.) This lists everything across in columns eg. Botanical Name, Common Name, Soil Type, How much Water, PH, Height of Tree, Length of time to bear from seedling or grafted, suceptibility to Frost,, what months they bear, etc. This chart is really excellent. They are \$7.50 + \$2.50 postage here but don't know what they would be to W.A. I will send you a copy of the form for them too.

Please send us the latest Granny Smith Bookship list.

Thanks very much,

Kind Regards,



Wendy Higgins.



PECAN HILL TOURIST CENTRE

TOODYAY, W.A. PHONE (096) 262636
OPEN — SAT., SUN. & PUBLIC HOLIDAYS 10AM-5PM
FREE ADMITTANCE

Pecan Hill Tourist Centre is located in a young pecan nut tree orchard approximately 4km West of Toodyay, off Chittering Road(see map).

The Centre comprises a tearoom museum, souvenir/craft shop and lookout tower. Built on a hilltop, the tearoom and tower enjoy breathtaking views of the Avon Valley and surrounding area.

The Centre is surrounded by local rock retaining walls and many native flowering plants. Picnic area near Centre and tower.

The tearoom serve morning and afternoon teas with expresso coffee, cake, pecan pie, pavlova etc.

After Hours (09) 279 2540 — R. Garcla (Prop.)

How to get there (approx. 4km from Toodyay)



BRIDGE OVER AVON RIVER, TO BOLGART

TOODYAY TOWN

TO PERTH

TO CHITTERING

T JUNCTION JUST UNDER RAIL BRIDGE

TO OLD GAOL

DUIDDEE PARK

W. TOODYAY RAILYARDS

LARGE DIP IN ROAD (slow down)

RINS

NO THROUGH ROAD SIGN

PECAN HILL T.C.

(Book Review)

PROMISING FRUITS OF THE PHILIPPINES

Publication of this book is the most important event of recent years for those interested in new fruits. Its value and interest extend far beyond the scope indicated in its title.

Because of its fascinating history of cultural overlays, the Philippines lie in a unique position in horticulture. The original flora is part of the intense southeast Asia centre of diversification, so the country has a wealth of native fruits and nuts. The Spanish opened up and occupied the country for centuries, leaving behind another wealth of introductions from both the treasure-house of South and Central America and from their Mediterranean home.

Finally the country came under United States control around the beginning of the century. The Americans introduced the scientific method and the publication of research results, and made many further reasoned introductions. A vital figure of the time was the incredibly energetic P.J. Wester, an American working for the U.S. Government who devoted many years of his life to the horticulture of the Philippines; among other things, he did great work on the custard apple family, and coined the name Atemoyer for the cherimoyer/sugar apple cross.

'Promising Fruits' is written by the Roberto Coronel, the Philippines' most prominent current horticulturist. The book's 521 pages are packed with accurate, well-documented and readable information on 24 of the most promising new fruits, each dealt with in detail, and 16 others dealt with more briefly. Cultivation, propagation, and uses are considered for each, as well as taxonomy, history, and economic importance.

Better-known tropical fruits, such as citrus, banana, mango, coconut, and papaya have no space wasted on them. Avocado, Caimito, Cashew, Chico, Durian, Langsat, Pili, Mangosteen, and Canistel are among those featured.

The book would be improved by an index, has a number of misprints, and the text, although very readable, strays at times from colloquial English. However these are very minor blemishes in what will prove to be the major handbook for those interested in new fruits. This book is very highly recommended.

(Will be available from Granny Smith's Bookshop at around \$28.00 soft cover, \$37.00 hard bound).

Hass avocado's late run

THE avocado is so rich in goodness that it was called "poor man's butter" by the British when it was taken aboard sailing ships as food for the crews.

The soft creamy flesh with its delicate flavour can be enjoyed as it is or as a savoury.

Blend the flesh with lemon juice, salt, pepper, chopped celery and serve with cold chicken, prawns, cottage cheese or walnuts on a bed of lettuce.

Another idea is to serve it sweet - pulp the flesh, add lemon juice, honey, a tablespoon of sherry, plain yoghurt and chopped nuts.

Mealtime uses are limitless and preparation can be as simple as spreading avocado on fresh bread or toast at breakfast or lunch. It can also be an entree, soup, salad, side dish or dessert. I recently enjoyed avocado soup at a friend's dinner party -

the flavour, texture and colour were superb. I've included the recipe below.

The avocado is used also in such diverse ways as avocado ice-cream, with meat and fish dishes and as a main ingredient in dips, especially the well-known Mexican dip, guacamole, of which there are many versions:

Compiled

The Avocado Growers' Federation of Australia has compiled many delicious recipes and they can often be obtained from your fruit seller.

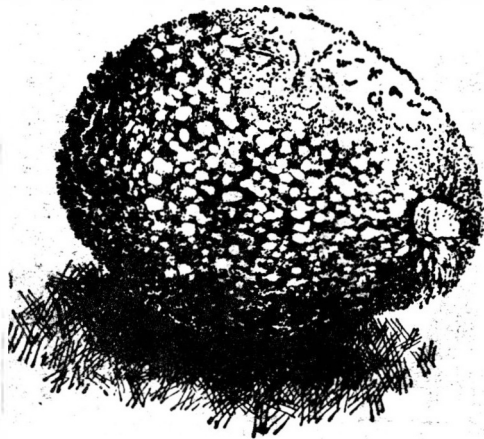
The latest variety of avocado to mature, the hass, is now available. This variety differs from the zutans, fuerte, hayes and sharwill - all types of avocado which have been available during the past six months.

The hass is thought to be the most delicious

variety. Its flavour is nutty, yet the fruit has a very smooth texture and a lovely colour - golden-green - inside. It cuts very firmly so that slices stay in shape when combined in a mixed salad.

The hass avocado is far from appealing in its outward appearance. It has a very knobbly skin texture, is round in shape and when taken from the tree is deep dark green in colour. As the fruit ripens, the green colour changes to black - and the consumer needs to be aware that this is the way to tell that the hass avocado is ripe.

The hass has a small seed stone, quite different from other varieties. So, even if the variety appears small, there is at least as much



The knobbly skin of the hass variety of avocado.

flesh available as in other larger varieties when the stone is removed.

Many people are unaware that mature avocado fruit will not ripen until picked. Then, depending on variety and temperature, they will

ripen in five to 10 days. To test for ripeness, cradle the avocado in the hand. If the fruit is ripe it will be soft to the touch without exerting any pressure.

Avocados are nutritionally an excellent food. They contain protein, carbohydrate, some fat, 11 essential vitamins and 17 minerals and are recommended for those people on low kilojoule diets and who are keeping cholesterol levels low.

In Mexico, where the fruit originates, there are many versions of guacamole, which also makes a sauce for chicken and fish.

Horticulture on offer at WAIT

A NEW degree in horticulture with the emphasis on management will begin at the WA Institute of Technology next year.

The course, which will be an addition to the existing programme at Bentley Technical College, will be run by Muresk Agriculture College and WAIT's school of biology.

Muresk's acting principal, Mr Ian Fairnie, said that the new offerings would give WA the best range of horticultural courses in Australia.

"It is something that we have been discussing for some time, but the decision was taken after a recent visit by a New Zealand expert, Dr Graham Thiele, and a meeting with senior staff from Riverina," Mr Fairnie said.

Muresk College will also link up with its sister institution, the Riverina College of Advanced Education in NSW, to make available external and correspondence courses in horticulture and viticulture and wine science.

This could be a new recipe to try as an accompaniment to drinks at "end of year" festivities.

Gaucomole

Gaucomole: Two ripe avocados, 1 tomato skinned and chopped, 1 tablespoon chopped onion, 1 clove garlic, 2 tablespoons lemon or lime juice, 1 tablespoon

Puree the avocados with the lemon juice in a blender. Melt the butter in a saucepan. Add the flour and stir until well blended. Add the chicken stock gradually, and stir until thickened and smooth. Remove from the heat and add the avocado puree and the cream. Chill before serving. - Joy Sparrow

chopped green pepper (capsicum), 1 teaspoon fresh coriander leaves, salt, pepper and a pinch of sugar.

Blend all the ingredients with a fork or in a blender or food processor. Use soon after making, or cover and refrigerate. The guacamole is served with thin crisp toast or dip-type biscuits. The recipe is enhanced with the fresh coriander, but it may be omitted.

Soup

Cream of Avocado Soup: Three large avocados, juice of 1 lemon, 60g butter, 60g flour, 1 litre chicken stock, 300ml cream, salt and pepper.

Amoebas in soil attack gardener

Cashew venture for Ord

A SINGAPORE company, 20th Century Foods Pty Ltd, has been given approval to establish a pilot cashew farm on the Ord River.

The State Government says that the six-year study could lead to an industry producing \$10 million of cashews a year.

Work will start as soon as an agreement is drawn up between the Government and the

company.

The Minister for Industrial Relations, Mr Dans, said yesterday that the company had been chosen from four applicants. Three had been Australian ventures.

The principal of 20th Century Foods, Mr Royan Pillai, had told the Government that world demand would ensure that all the cashews the Ord could produce would be sold.

The company owns Rajmohan Cashews Pty Ltd, the biggest cashew processor in India.

The company had recently set up a joint cashew venture with CSR in the Northern Territory.

The WA Government established a working party in June last year and called for submissions from companies interested in a pilot cashew scheme.

Pecan orchard ready to open

West Australian
Monday July 23, 1984

A PICTURESQUE pecan nut orchard near the banks of the Avon River is about to open to the public.

Barbara and Rod Garcia have been growing pecans on their Toodyay block for nine years.

Their pecan orchard will be open for inspection for the first time next Saturday and Sunday.

Known as the Pecan Hill Tourist Centre, it is 4km from Toodyay on Chittering Rd.

A combined museum, tearoom and souvenir shop stands on a high section of the pecan orchard. This building overlooks the peaceful Avon River.

Picnic areas are being established and there are plans to build a lookout tower.

"The scenery here is delightful," said Mrs Garcia. "Visitors can inspect the nut trees, have afternoon tea, and look at the different crafts displayed.

"Right now the trees

look spectacular. They are covered with heavy blossom."

There are about 350 nut trees on the Garcia property.

"We have had some difficult weather conditions for growing pecans in the past few years," Mrs Garcia said.

"Strong winds and rain have meant poor yields."

"My husband had become interested in the idea of nut growing after reading widely on the subject.

"Now that we are more established we are hoping to be able to sell the pecans commercially.

"At the moment this is a weekend project. The location of the orchard is so pretty that we are looking forward to the time when we can live up there permanently.

For further information, contact Mr and Mrs Garcia on 279 2540.

Mango is put to the test

THAT delicious tropical fruit, the mango, is on trial.

The Department of Agriculture is testing 75 varieties of the fruit from as far away as Florida and South Africa to see if the mango could become a major tree crop in WA.

The tests are being carried out at the department's Kununurra research station and the results are expected to provide valuable data and propagation material for the State's fledgling mango industry.

The department's horticultural adviser at Kununurra, Mr Bruce Toohill, said that the standard commercial variety of mango now being grown in WA, the Kensington Pride, grew well in Kununurra but was less successful farther south.

"For mangoes to succeed as a new enterprise in WA we need a stable supply to potential consumers," he said.

Market

"Plantings from Kununurra and down the coast to Gingin would ensure market supplies from October through to March.

"New varieties could provide fruit from August to April."

Mr Toohill believes that WA growers could not only produce fruit for eight to nine months of the year but could also supply the out-of-season market in south-eastern Australia and in Asia.

"There could also be an opportunity for us to get into the lucrative North American market because they accept mangoes only from areas that are free of mango-seed weevil," he said.

There are 6500 mango trees in commercial plantings in the Kimberleys and a similar number of trees in plantings at Carnarvon.

WA gets a taste for avocado

THE Guinness Book of Records recognizes the luscious avocado as the most nutritious fruit in the world — and probably the only fruit that provides a balanced diet all on its own.

But the little green pear is looming as a big new commercial commodity in WA where a rapidly rising number of shoppers are realizing its versatility. And prices are starting to fall.

There are about 20,000 avocado trees in WA and only about half of them have begun to produce fruit.

One grower who is expecting to harvest his first commercial crop this year is Mr Michael Keam, a founding member of the Avocado Growers' Association.

Mr Keam has about 8000 trees on the Baldvis property he owns in partnership with an American business man.

"I first became interested in avocados about five years ago because they are a unique fruit," Mr Keam said. "Even when mature they will hang on the trees and not ripen for about six months."

"This is a great feature for growers because the supply can be regulated according to demand.

"But it has created one big problem for the industry: Few consumers realize that the fruit is ripe only when it is soft and they often buy unripe avocados and are disappointed."

Trees go up in smoke to stop disease

Bacteria in five nurseries could wipe out Florida's billion-dollar citrus industry

By David Flink
and Ben Barber
USA TODAY

AVON PARK, Fla. — Under Wednesday's overcast sky, men in disposable white paper uniforms towed propane flame throwers through Franklyn Ward's citrus nursery, scorching row after row of 18-inch orange tree seedlings into charred sticks.

Whispered Ward, 67, whose father started the 60-acre tree farm in 1924: "This is the worst thing."

In Florida's billion-dollar citrus industry, a highly contagious strain of canker bacteria is threatening to become a plague: Now discovered in five of some 100 major nurseries, it spreads easily, kills seedlings and trees and can be halted only by burning.

It could grow much worse. So far, the threat centers on nurseries, where seedlings spend 14 to 18 months before groves buy and transplant them.

But many fear the disease could spread into 750,000 acres of the groves themselves — the lovely stands of orange and grapefruit and lime and lemon trees that line the

flat, endless roads of the state.

"Say a prayer for us," said John Kennedy, a vice president at Gold Gem Growers in Umatilla, Fla.

The stakes are enormous. Florida produces 90 percent of the nation's frozen citrus concentrate and chilled citrus juice and more than 15 percent of its fresh citrus fruits.

The sacrifices are growing enormous, too. Infected nurseries must burn every tree, plant, budwood and seedling. Wednesday, Florida Agriculture Commissioner Doyle Conner ordered all customers to burn any plants purchased from those nurseries — and any trees within 125 feet of the transplants.

Millions of trees may die, and there is no insurance against canker losses.

Said Earl Wells, a vice president of the 13,400-grower Florida Citrus Mutual: "The growers are in shock. The potential is just absolutely unknown."

After the chill hand of a 1983 Christmas frost squeezed \$500 million from their pocketbooks this year, Florida growers worry that their livelihoods may literally go up in smoke. "We thought the freeze was bad," said Florida Department of Citrus official Harry Rixman. "The canker could be 100 times worse."

The disease first appeared Aug. 24 on Ward's bountiful green nursery in the sandy soil of Central Florida's "ridge" country. The soft-spoken, highly respected Ward refused from the start to fight the torch: "I wouldn't want to endanger the citrus industry."

While his acres burned Wednesday:

■ The number of affected nurseries grew from three to five — and the geographic spread of incidents widened as researchers confirmed evidence of the canker's brownish yellow lesions in nurseries near LaBelle (south of here, near Lake Okeechobee) and Naples (southwest of here, near Fort Myers).

"The ripples are widening. It wasn't a good day," said state Agriculture Department spokesman Pete Packett.

■ An army of 150 state and federal officials was inspecting other citrus nurseries and combing records to trace shipments from the infected farms.

Said Ray Stallings, district director for the Federal Crop Insurance Corp., "You look under everything, even some things that aren't there."

■ Conner said he would ban intrastate shipments of citrus and roadside sales of uninspected fruit.

Earlier, the federal government barred shipments to other citrus-producing states — Texas, California, Arizona, Louisiana — and said only inspected and chlorine-treated fruit could be shipped to the rest of the nation.

■ Ward's records revealed he had shipped thousands of budded trees to fruit-producing groves, and a state official said lab tests indicated that two "strongly suspicious" replacement trees had been planted in groves.

■ And in Gainesville, two University of Florida plant pathologists in a beige stucco laboratory peered into microscopes seeking answers: Where did the disease come from? Will it infect the fruit, too? How far might it spread?

It has caused tremendous changes in the citrus industry already. Kennedy said growers must wait an extra 24 to 48 hours before shipping harvested fruit while

And commodities traders are reacting quickly: On the New York Cotton Exchange, a futures contract for January delivery of orange juice rose Wednesday 4.85 cents to \$1.77 a pound.

Effects in other citrus-producing states were minimal, beyond the shipping ban.

Texas — which purchased 250 quarts of Florida seed this spring to replace trees lost in the killer Christmas freeze (each quart can produce thousands of seedlings) — has halted any further shipments. "Right now, we want to be 100 percent sure it's not a problem," said one Texas official.

California officials didn't seem very worried. Biologist Barbara Hass said transmitting the bacteria across an entire continent is unlikely.

When juice shortages develop, USDA economist Ben Huang said, some slack could be picked up by imports. But Merrill Lynch analyst Alan Kaplan said: "The worst case could leave a huge shortage. Minute Maid could get juice from Brazil, but people might not want to buy it, because the price'd be so high."

Prices are already high. Since the winter freeze, said Huang, wholesale prices on a dozen 6-ounce cans of concentrate have risen to \$5.04 from \$3.95.

Florida's last canker blight was in 1912; it was eradicated in 1927, after the state destroyed 3 million nursery trees and 257,000 mature trees. Since then, it has shown up in Mexico, Japan and parts of South America.

Some manner of compensation for the growers could come from increasing the Florida Citrus Commission-administered tax on fruit sales or an appropriations bill from the state Legislature.

Meanwhile, Alan Sweet, 35, waits for the men in the white uniforms, who come today to torch 90,000 seedlings at his Lake Alfred, Fla., nursery.

Sweet was counting on the sale of this year's trees to finance a new planting. Without a loan, replanting is impossible — and because of the canker, citrus is forbidden. "They say anything but citrus," he said sadly. "But citrus is the only thing we know how to grow."

Contributing: Patrick O'Driscoll and Veronica Jennings.

U.S.A. Today

Sept 26, 1984

Transplant An Orchard

Contributed by
Terry Prndergast

It all started over a Sunday lunch with a friend at his Avocado orchard. He was showing me through his orchard and saying he didn't know what to do about his trees — "they've reached the stage where my tractor can't get between the rows. I have to prune the lower branches to enable access".

He was aware that he was cutting his best fruiting wood and making it difficult to harvest the now high fruit on the remaining branches. He lamented that the only thing he could do was cut out every second tree, but this meant that after only five years he was reducing his orchard by 50% and that the cost to get the trees to 5 years old was considerable (estimated at between \$200 to \$300 per tree) from which he has had only two years production, returning less than \$100 per tree. With rising costs and diminishing returns on the market floor there had to be a better answer.

I suggested that these trees could be transplanted. After initial problems and a couple of lucky breaks we have refined our system to local conditions and have managed a high success rate in having transplanted a 30 tree orchard which is now a "goer".

Basically — the removal of the tree is similar to that of other tree transplants, but the right combination of hormone, fungus and insect control is essential and an assurance of success.

We use two back-hoes and three vehicles for removal, and with staff of five we can comfortably move more than 12 trees per day.

The mechanical operation consists of taking as much root area as possible usually 9 sq. metres, and lifting the tree from the site, transporting and replacing it at the new location with as little damage as possible.

After-tree care is essential because of the large root area. The delicate nature of avocados' roots make this period most critical and we insist on doing this after-

planting care ourselves — up to 10 days, and then keep a close eye on things for another 3 months.

The tree is back to its original size and production after 2 or 3 years, depending on the season of year transplanting takes place.

At first the idea was to keep the original orchard at full production by:

1. Reducing competition caused by overcrowding.
2. Reducing cost of orchard management, particularly in the harvesting of fruit, as it was shown that overcrowding of trees and pruning of lower branches forced the trees to set their fruit out of convenient and low-cost picking range.

We were more than surprised to find that although we had reduced our tree number by 40%, our harvest was the same as the previous year — and the return per tree was up by 50%. Together with the ease of picking and substantial savings in labour cost, we knew we were on to a winner.

So, although the cost of moving the trees is high — \$100 or more, with our success rate we have paid for our trees within two years, increased production of our original plot and reduced costs!

Anyone who is serious about growing avocados can't afford not to use our system in today's trends of reducing returns.

The cost break-up depends on site conditions and distance, but given a typical situation of an orchardist wishing to remove trees and replanting on his own property with a reasonable level site —

1. Remove and transplant — \$115 per tree.
2. After-transplant care — including fungicide, insecticide, herbicide, sunburn and transpiration control — \$25 per tree.

Therefore, we are looking at \$140 per tree. This cost will be recouped within two years on existing plot with production increases and reduction in costs. Furthermore, the bonus comes when the transplant trees come into production.

We must be mindful that if an orchardist cuts out his own trees to prevent overcrowding, the cost of this operation is equivalent to a third of this cost i.e. the actual cost of \$115 per transplant is subsidised by the original cost of good management.

I find it quite amusing that developers of residential sites are willing to pay up to \$1500 for transplanted ornamental trees to beautify their landscapes, when we are able to remove and transplant the most delicate of all trees with their extensive root systems, for a fraction of this cost. I wonder maybe I'm too cheap, but as an orchardist and manager and with my consultant we feel we can offer a service to our fellow orchardists and the would-be newcomers to the industry.

In fact, our system must be very attractive to any landlord with a tax problem, as the establishment cost will be considerably higher than conventional methods, but the income would be forthcoming two years early, resulting in nice capital gains.



Bill loading six year old tree. Extensive root system must be maintained and treated for fungus and pests prior to planting.

PO Box 565 Subiaco, WA 6008, Australia

West Australian Nut & Tree Crop Association

Incorporating the West Australian Nutgrowing Society

EXECUTIVE COMMITTEE

PRESIDENT	David Noel	3802326
VICE-PRESIDENT	Wayne Geddes	3213200
SECRETARY/TREASURER	Lorna Budd	4585 918
YEAR BOOK EDITOR	Lois Evans	4075474
QUANDONG EDITOR	Bill Napier	3260311
	Warren Boucaut	3905311
	Milan Mirkovich	4202068
	Nola Washer	4075888
	Alex Sae	3975628
	Reg Judd	2766844
	Mr & Mrs Aitken	2741469

Editor's address: 11 Canns Road
ARMADALE.

MEETING DATE:

NOV 7 ANNUAL GENERAL MEETING

General meetings are held at the Naturalists Hall, Meriwa Street, Nedlands, at 7.30 pm on Wednesdays.

Members wishing any matter to be considered at an Executive Committee meeting should contact Lorna Budd at least 2 days before the meeting.