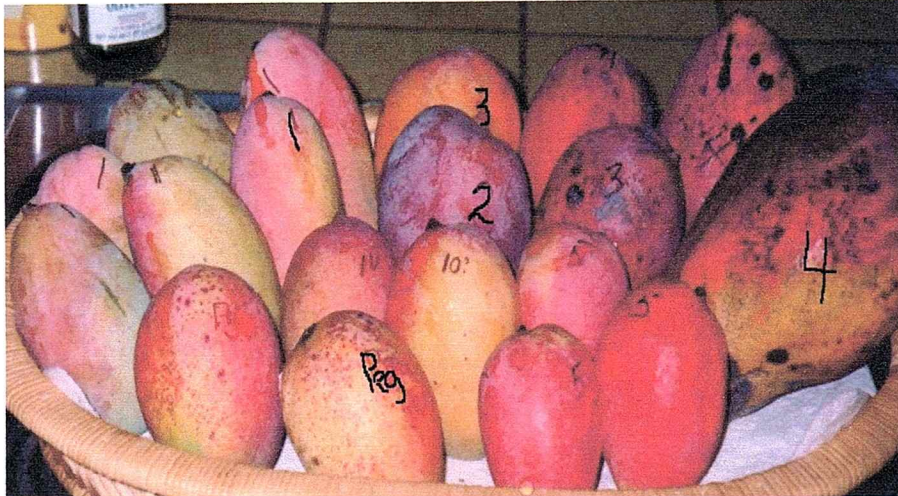


Me And My Mangoes



I'm Leo Manuel, new at PowerPoint

San Diego in 1962

Meeting Jim Neitzel, Peggy Winter, and Paul Thomson, joining CRFG

CRFG as an inspiration Opportunity to meet great people

L. L. Bucklew grower of the mango in California;

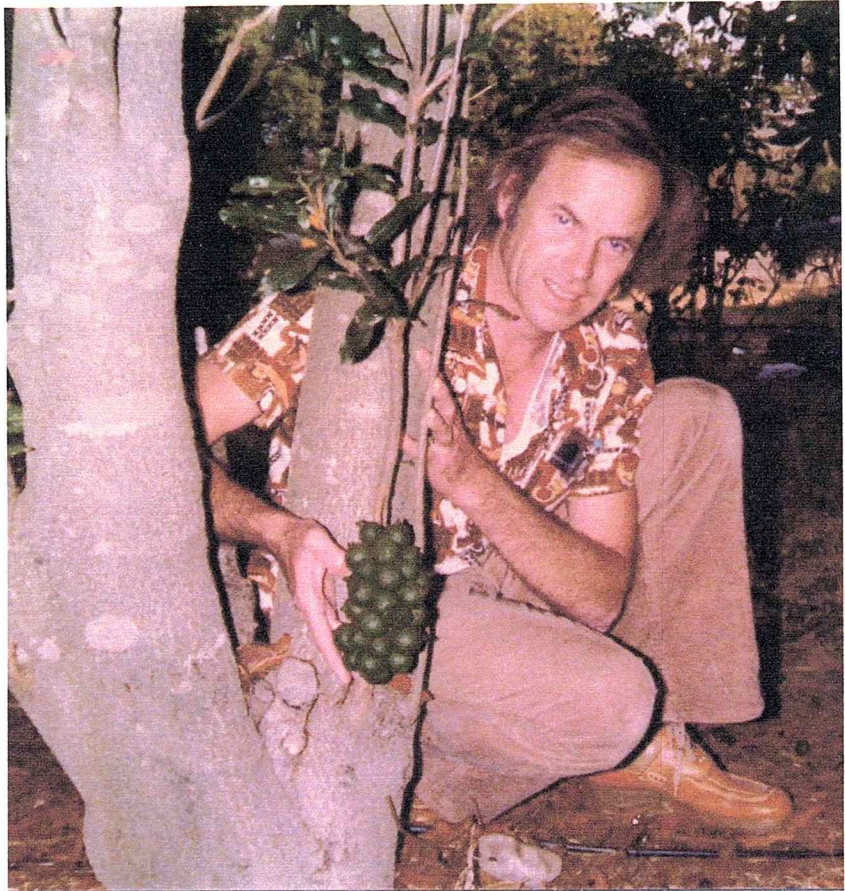
Cliff Tanner popularized the 'Suebelle' sapote;

Frank Cooper in Vista, who developed a mango so late it was early

Orton Englehart well-known for cherimoyas.

Computers – began 1970s – 1996, *web site rarefruit.com*
Rare Fruit News Online – 2003 PitayaFruit Yahoo
newsgroup.

Beaumont Macadamia *in Clairemont*



Clairemont suburb – .75 A. flat lot – San Clemente Canyon

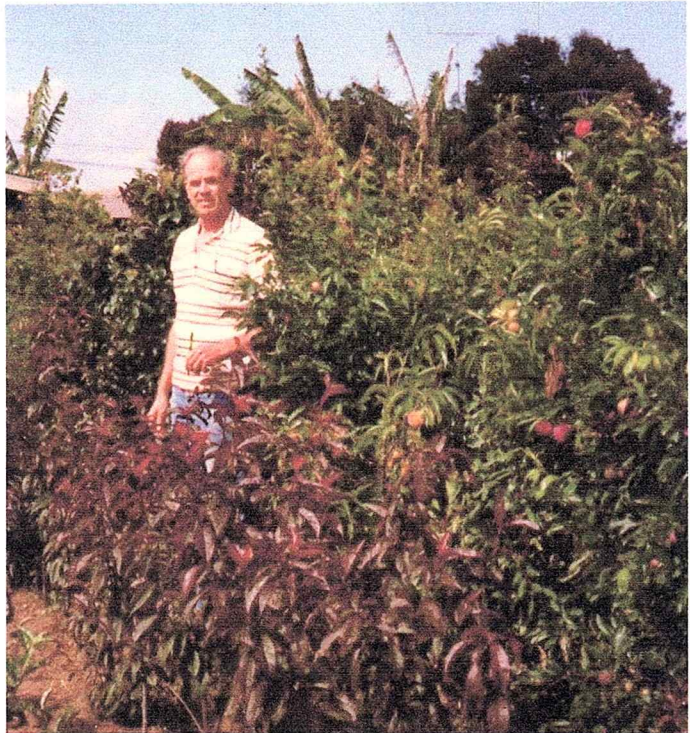
Near coast Frequent fog Winters cold and damp

Cold air drains down canyon from inland. Winter temperatures in upper 20s,

Clairemont–Deciduous Fruit Trees +

**Adjacent to San
Clemente
Canyon**

**Back Yard:
hundreds of
deciduous fruit
trees, many in
pots, few rare
fruit plants**



Distant view – Front yard bananas

Back yard (majority of lot) colder – especially adjacent to canyon

Ordered Merton & Malling dwarfing rootstocks Had many scion sources NAFEX

Ordered quince rootstock dwarfing for pear most required interstem

The apple cultivar 'Winter Banana' is well known to be graft compatible with many pears - European and Asian - and there is a 'Superclone' selection that also supports pears with long-lived/non-declining unions. 'Fertility' pears is reputed to be graft compatible with many apples, as well

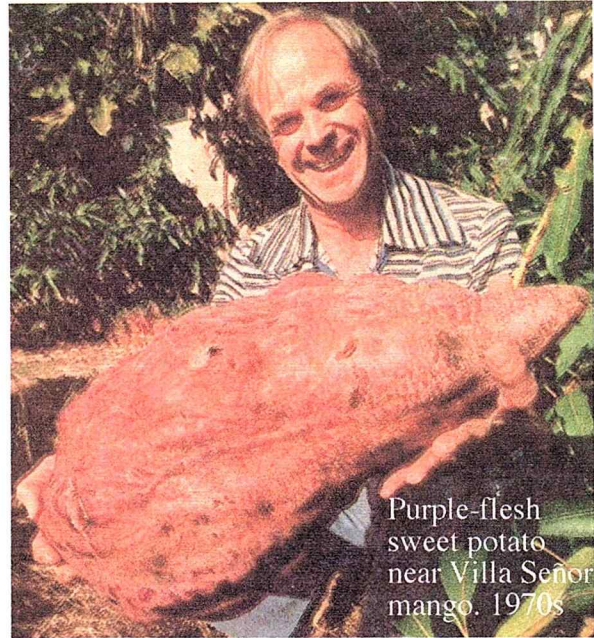
Ordered dwarfing rootstock for peach, nectarine, etc. – St Julian A/X Plum

Visited Merton-Malling Research Station – Reeds – saw crowding many apple cultivars into a small area – espaliered – also genetically dwarfed apples of several well-known varieties, not just by using dwarfing rootstocks.

'Newsworthy' Sweet Potato

20 pound
purple-flesh
sweet potato.

Size
exaggerated
by camera
lens. Vine
from 'Exotica'



Sweet potato may have originated in Phillipines

Fertilizer Guinea pig cage straw, droppings

Also, composted sawdust large truckload

Union-Tribune photographer

Zoo said safe to use

roto-tiller

Kiwis produced very well - because they were among my least favorite fruit?



Low-chill kiwis – abundant fruit – least-favorite fruit – ¿Vincent and Monty?

Fruit needed more heat to be sweeter

**Warmer
Front Yard
on South
Side: Had
mango,
lychee,
longan, and
macadamia**

Front Yard: Longan, Mango, Lychee, Macadamia, etc. in 1970s



Two mango trees

Floyd Cooper grafted by Paul Thomson

VillaSeñor

Cooper froze

VillaSeñor tucked under roof overhang of house

Lychee

Longan

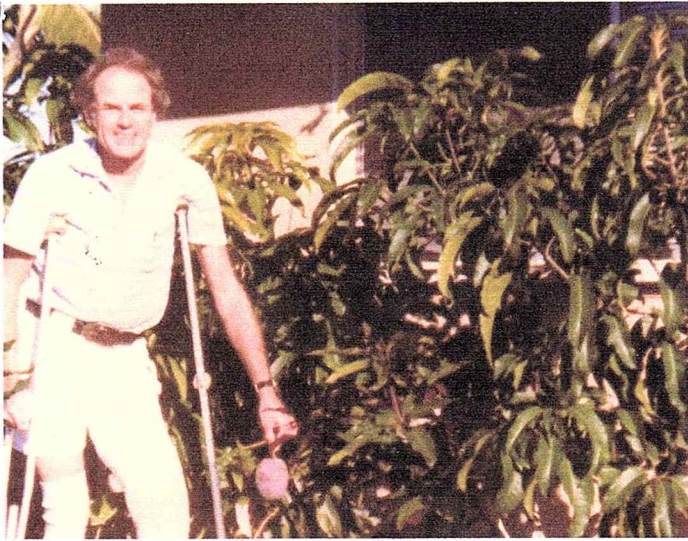
Banana

Guava

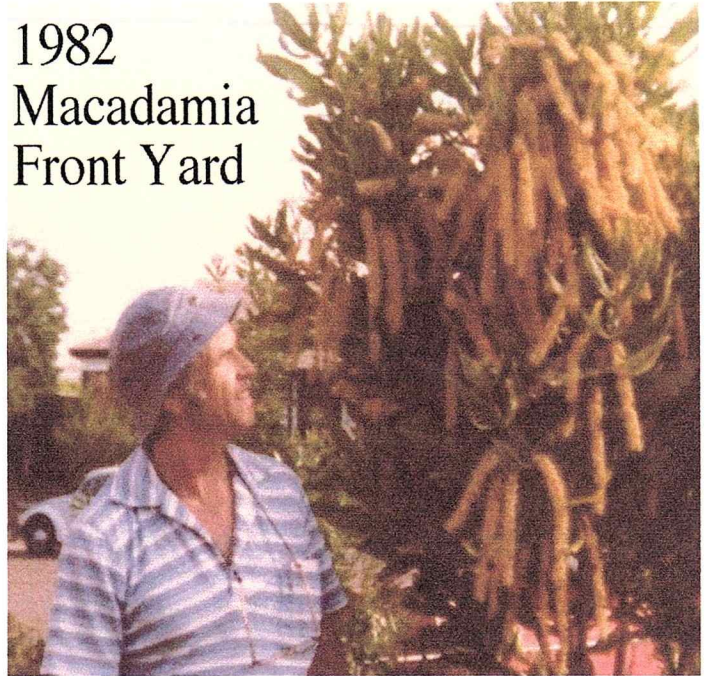
Soil excavated 3 feet

Replaced with rich topsoil

South Side of House



1982
Macadamia
Front Yard



VillaSeñor mango

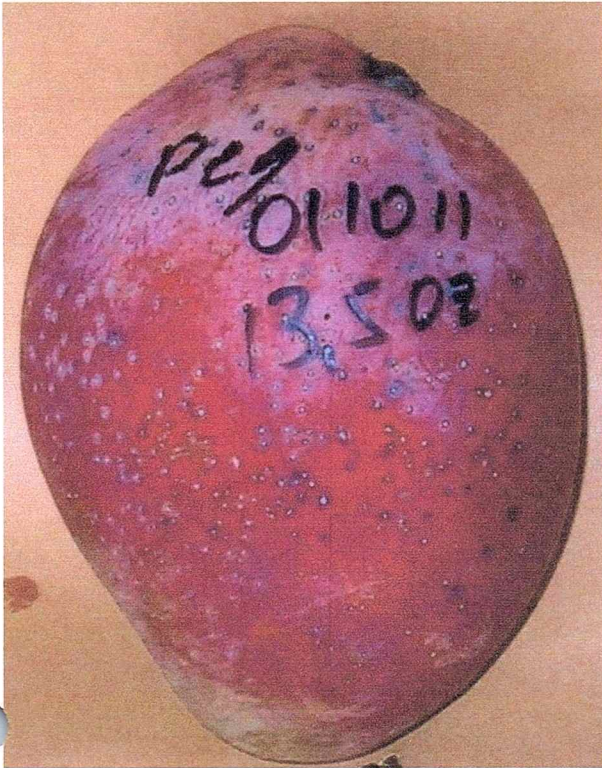
The Villa Señor mango – close to south wall of house.

Mango originated – Seed planted by mother of author Victor VillaSeñor – Oceanside

Papaya planted next to it.

Banana plants – heavily damaged by cold winters, even on this warmer part of the yard.

Peggy Winter's Seedling Mango



Camera not adjusted for color – Peggy Mango tree

Origin of seedling – Peggy Winter – grocery dumpster

Wanted to name it 'Winter' – Florida seedling #20222 – I call it Peggy Winter mango, and sometimes, simply Peggy.

Reliable – heavy producer – high quality fruit

Consider a grafted tree of 'Peggy' in your yard

Skin – rose over yellow – flesh yellow-orange – weight ~1 pound – taste 8 of 10

1992 Move to Rancho Peñasquitos

Warmer
winters!
Peggy
Winter –
bigger in
2004–You
should
see it now!



12 years after move to Peñasquitos – tree moved here in large pot

3 years after this picture 2007 tree even bigger – and loaded

Lot size .25 A – north-facing slope – level near house – most mango trees here
Neighbors nearer

Warmer winters – no coastal fog – grown well

Soil poor – clay – little topsoil

Happy Mangoes In R. Peñasquitos

July 7, 07
Bucklew's
Early Gold
– reliable,
disease-
free, and
... early!



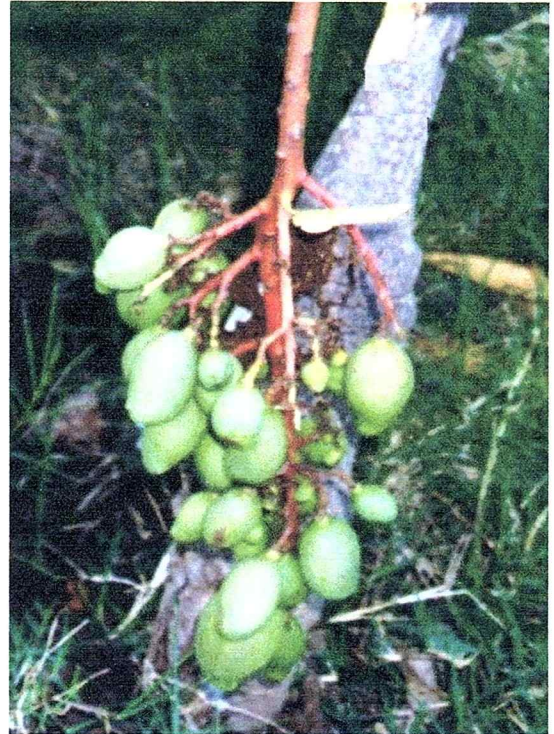
Our winters – MUCH milder – no frost until January, 2007 – upper 20's

Killed smaller trees – destroyed Jakfruit leaves on bananas – Most mango, cherimoya trees discolored leaves

7 Longan few damaged leaves – adjacent lychee escaped – similarly in Clairemont

(Paul) Thomson Mango

Thomson Mango – reliable and productive—also polyembryonic. Fruit size will be quite small unless heavily thinned. Fruit quality is very good.



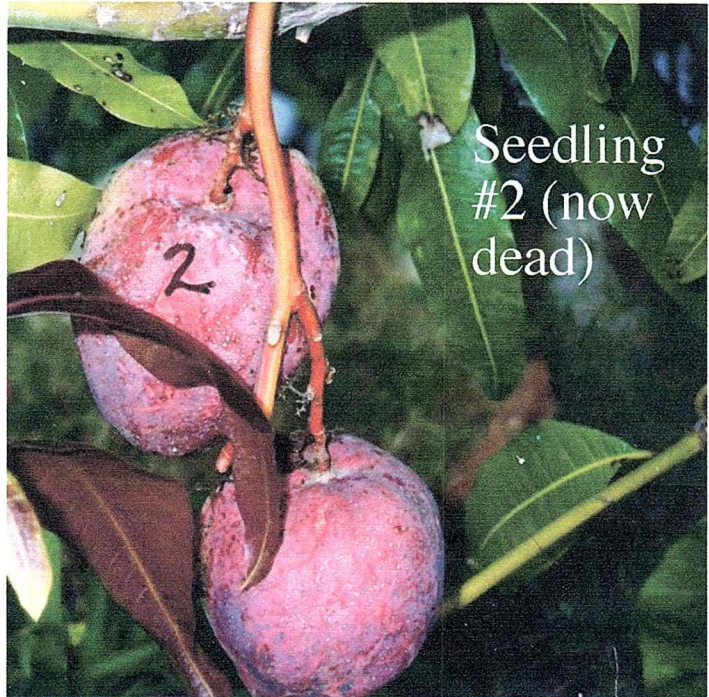
Thomson mango – manila type – reliable – low fiber – mult. seedlings/seed

Excess fruit set – thin –Taste 8/10 – seedlings precocious

T-1 Paul's – his best mango – monoembryonic – my T-1 graft two years old

Trees I Brought To R.P. In 1992

Besides ten mango seedlings, we brought four cherimoya seedlings, three of which we still have



Brought 11 mango seedlings #1 - #11 plus Peggy Winter

Remaining six – now have numerous grafts other varieties

Other seedling good fruit – #12, #18, and W, X, Y, and Z –

Seedling X named 'Apricot' mango

Best mango seedling is one named Leo-1 – seedling of Peggy Winter –
Taste at least equal to Peggy

Whatever I grow “tastes better than it really does.”

Four cherimoya hybrids brought – 'African Pride' atemoya X cherimoya

Remaining three of them – fruit unlike most cherimoas – one shows atemoya parent

Mango Requirements

- Mango tolerates heavy soil with clay, in my experience.
- Mango will grow and thrive with less water than most, but needs lots of water to fruit heavily.
- Established trees will tolerate temps a little below 30° F.

Adjacent to house – Soil heavy clay – drainage poor – leaking irrigation controls

Oro mango seedling grew rapidly – taller than house in few years

Five mango trees growing in area

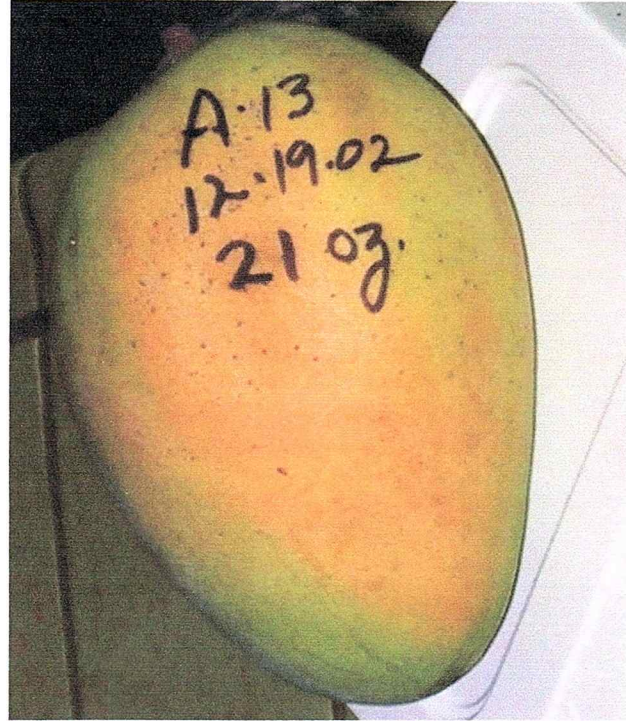
Harry Hausman, Florida correspondent said mango has heavy water
I tried it, and he is right. The mango trees now bear much more fruit.

Peggy Winter's Mango Now



July 2007 Peggy Winter is loaded – fruit should be thinned

Captain
Bucklew's,
Veteran of
Spanish
American War.
Started Mango
Trials in 1936
Near Quail
Gardens



Captain L.L. Bucklew liked Early Gold best for his Encinitas location on Mango Drive – near Quail Gardens.

We met 1960s – 1999 I began collecting graft wood from his few remaining mango trees, including Early Gold – after resurrecting them with water

In 1956 in – California Avocado Society – 1956 Yearbook wrote:

"This variety "EARLYGOLD" came from Florida. This fruit weighed 8 ounces and measured 4-1/8 by 3-1/4 by 2-1/2 inches. The skin was light yellow, pulp orange color, medium juicy, 20% sugar with very little short fiber on the edge of seed. The flavor was excellent. This early maturing Florida variety may be the answer sought for sixteen years.

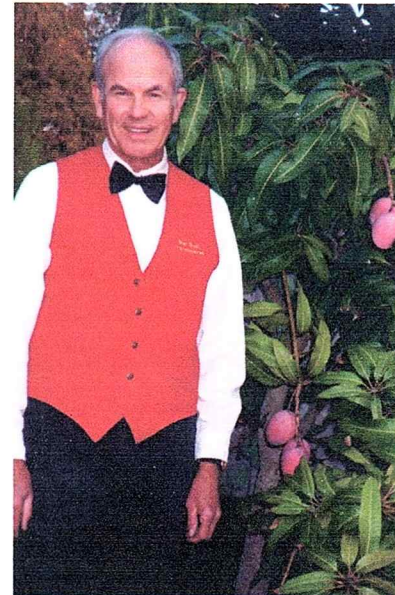
Bucklew's property map: EarlyGold (most), Julie, Saigon, Florigon, Zill – Map out of date – Trees varied from map names – Zill really EarlyGold

Tree at coordinates D-8 unknown variety – map label said EarlyGold. I have temporarily named this large-fruited tree "Rose Giant" – ripe fruit rose colored

More Mango Trees



Keitt, on the left.
Tree on the right is Peggy Winters mango.



Purchased Keitt – Kent – Nam Doc Mai – others

Keitt fruit is quite large – commercially harvested with green skin – color will change to rose colored if left on longer.

Kent fruit excellent – Tree stays small – mine seems to be dying

Nam Doc Mai blooms and bears almost continuously – sets heavily – aborts many
Fruit yellow-green skin – flesh pale yellow – taste sweet even unripe

Also grafts of Glenn – Oro Sdlg – Tuong – Pim Saen Mun – Maha Chanook – Alice Snow's Seedling – Turpentine seedlings – Red Globe – and R2-E2

Oro fruit pretty good – Tuong may become better with time – Pim Saen Mun bears very badly for me – Florida does much better – Turpentine for rootstock-flesh sweet but fibrous

Tommy Atkins near bottom of list of favorites – BUT '**Petacon**' supposedly bud sport of Tommy Atkins – Fruit significantly larger up to 2 lbs – Grown in Mexico – fruit higher quality than T.A.

Nam Doc Mai



Keitt



Nam Doc Mai – bears heavily – aborts many – tree growth wide, not tall
I recommend it (and Paul Thomson liked fruit I took to him.)

Keitt bears heavily, ripens late in the season – very large fruit – skin will turn to rose

“Green Mango” in some stores name for Kent.

My Seedling Of Kent

Produces late,
very large
and Kent-like
appearance,
taste, and in
its bearing
season

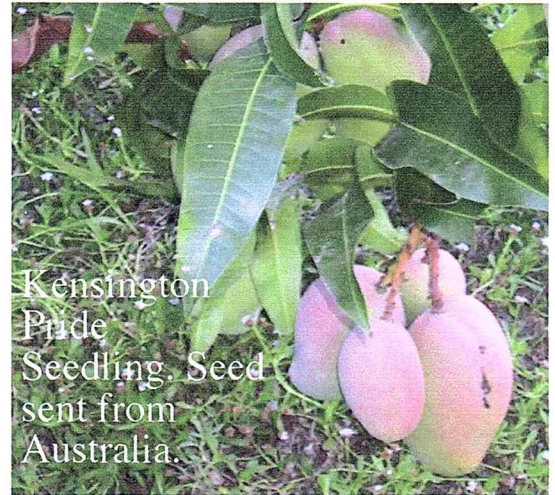


Fruit ripens December – Seedling of my Kent has large, excellent-tasting fruit
– began to bear in 2006 – Rootstock for a Kensington (may reduce)

Other Mango Seedlings

There have been dozens that have produced.

A newsletter reader in Australia sent me a seed of Kensington Pride, which is polyembryonic. It began to bear in 2004.



Kensington Pride – AKA Bowen – originated Bowen Australia

80% – 90% of Australia's mango crop

More popular in Australia than outside it

R2E2 – Closely related – possible seedling of Kensington Pride – regarded as superior to it.

Kensington (not K. Pride)



Jim Neitzel collected Kensington scionwood Hawaii – majority of my current seedlings either Kensington or Kensington Pride

Kensington possible seedling of polyembryonic Kensington Pride

Jerry Staedli grows Kensington extensively (also, Valencia Pride)

#20222 (Winters) (Florida Sdlg)

It bears an aromatic and colorful fruit. It may be alternate bearing.



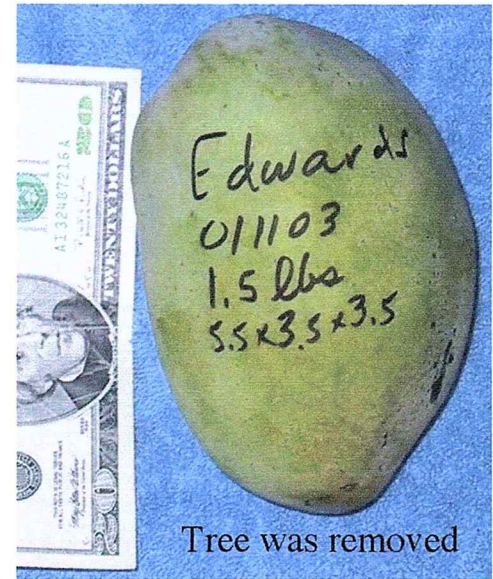
Florida's Seedling #20222 – renamed to 'Winter' – always #20222 to me

Fruit rose over gold – distinctive aroma – low fiber

¿Alternate bearing? – tree performed very well until I moved it – now performs poorly

Edwards Mango

Not a good producer for me and was removed. It bore infrequently and the fruit was neither colorful nor of high quality.



Tree was removed.

Edwards, as well as Pen Sen Mun and Carrie perform better in Florida

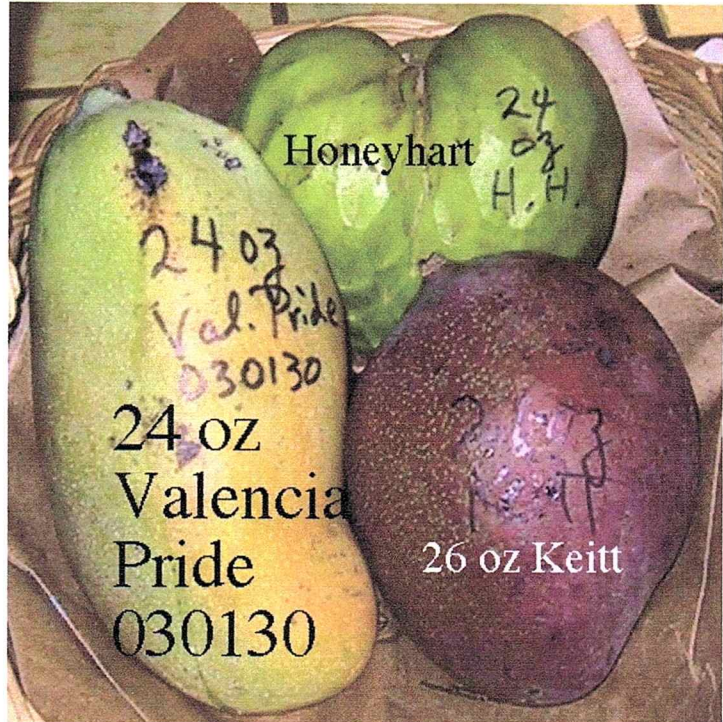
Ripe fruit skin – green to pale yellow-green – large fruit – taste good

Bore poorly

Valencia Pride and Kent, & Honeyhart Cherimoya

Mango: Valencia
Pride and Keitt.

Cherimoya is
Honeyhart –
(Orton
Englehart's
cultivar.

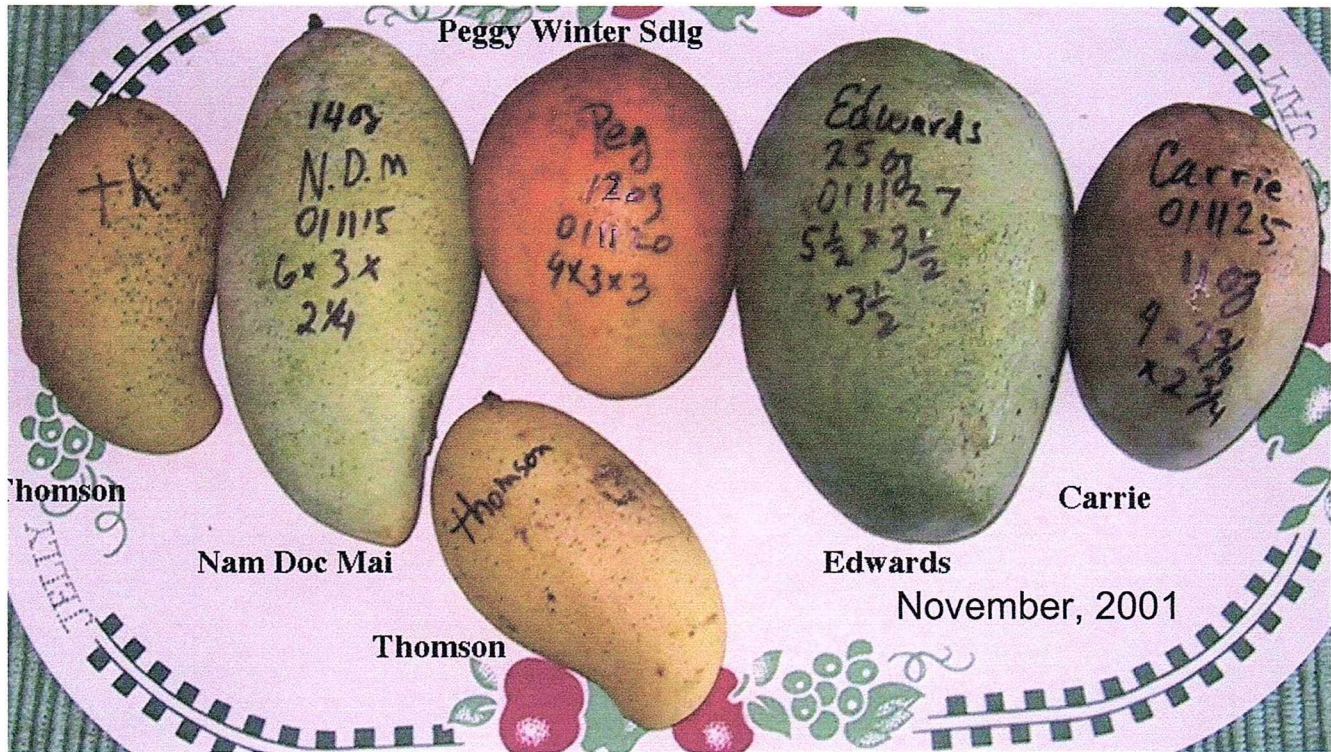


Valencia Pride – to 2 lbs – late to ripen – popular among RFNO readers in poll

Keitt often harvested with green skin – I let it change color from green to purple

Orton Englehart – Honeyhart cerimoa – excellent variety

Fruit of Thomson, Nam Doc Mai, Peggy Winter, Edwards, and Carrie



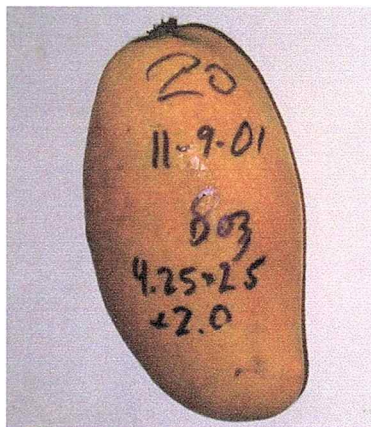
'Thomson' – yellow-gold skin ripe – polyembryonic – Paul Thomson's manilla type

Nam Doc Mai – Peggy Winter (smaller than usual)

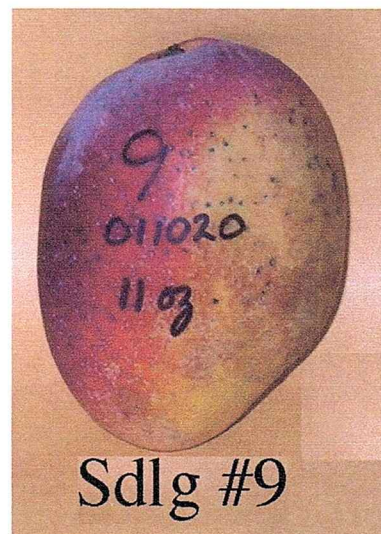
Edwards and Carrie performed poorly – removed

Seedling of Carrie bloomed 2007 first time

Fruit - Seedlings #20 & # 9



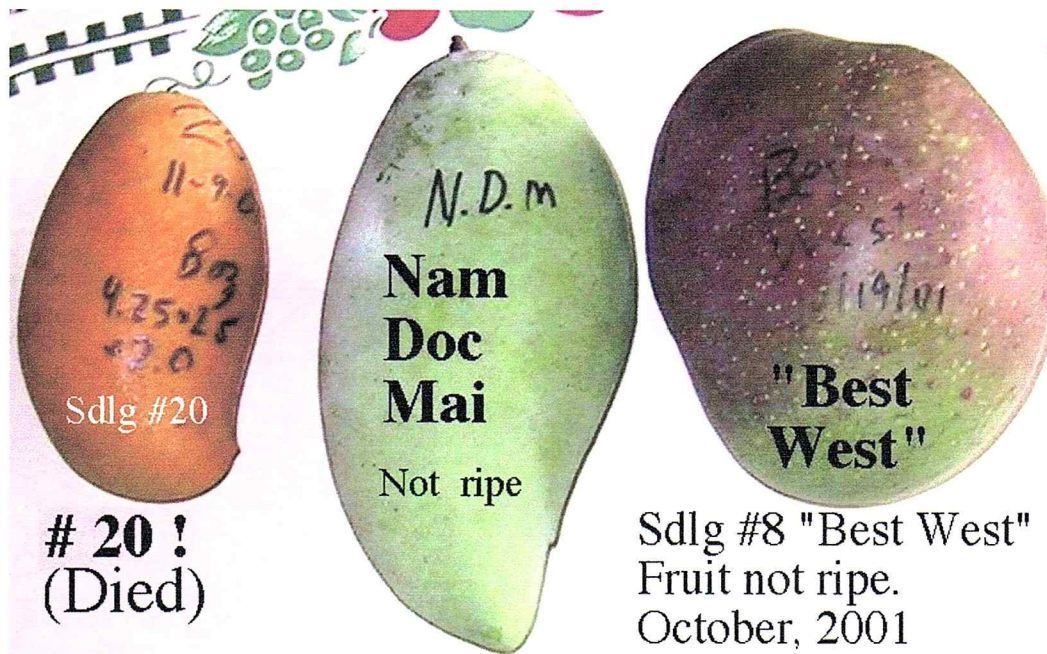
**Sdlg #20 -
great taste,
not usually
productive;
Sdlg # 9 -
very good
fruit, also
not usually
productive.**



Seedling #20 – 8 oz fruit – skin gold ripe – polyembryonic

Seedling #9 – 11 oz fruit – location poor – scant producer

Seedling #20, Nam Doc Mai (unripe), and Seedling #8 (Best West)



Seedling #8 (Best West) – ripens December, usually – fruit weight 16 – 30 oz

Two seedlings polyembryonic – #5 #20 – smaller fruit - very good taste and aroma.
#5 heavily damaged – January, 2007.

Name seedlings produced quality fruit – #1 - #20 – began reverse alphabet so
seedlings W, X, Y, and Z – plus excellent seedling of Peggy Winter (now Leo-1) –
Sdlg X named Apricot (Jack Skeels) because of the fruit taste.

Can't add additional trees without removing and replacing others – Leo1 in poor
location – scions now grafted onto other trees.

Also multiple grafts on most seedling trees – Oro seedling – produced – top-worked to
Paul Thompson's T-1 and Maha Chanook (from the royal orchard in Thailand).

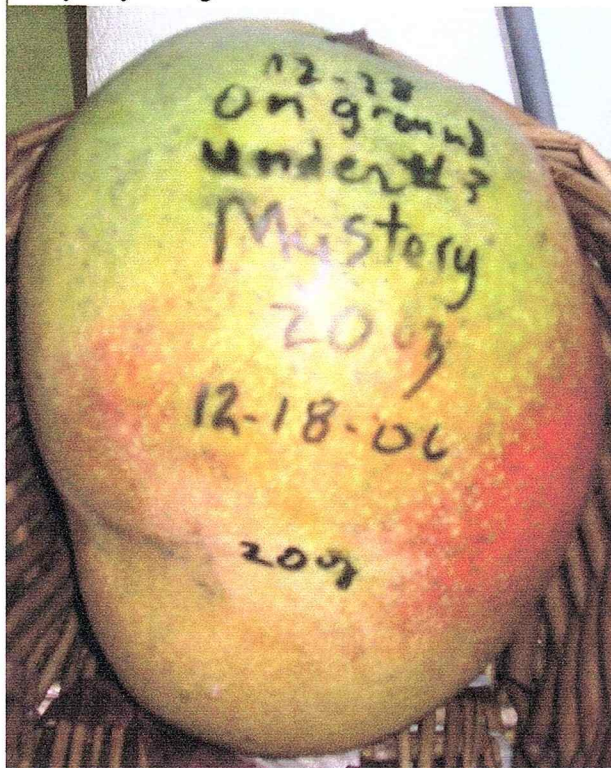
Sdlg #18 has an added Valencia Pride graft – 2006 “mystery mango” fruit fell under
Sdlg #18, but I haven't located its graft.

Sdlg #12 – Saigon mango graft – (Bucklew's place)

“Surprise” fruit - Sdlg #8 (Best West)

Graft placed years ago onto Sdlg #3. It hadn't produced until this one dropped 12/18/06. By mistake, I labeled it a “Mystery” mango, but later found the graft union. It weighed 20 oz.

Graft of Sdlg #8 ('Best West') had been placed years ago but hadn't produced a fruit until this one fell, 12/20/2006. It weighed 20 oz. It is no longer a 'Mystery' mango.



Scion grafted several years ago onto Sdlg #3 – forgotten – bore first time 12/06

Labeled fruit by mistake Mystery mango – later found graft and tag ID as Sdlg #8 – Best West.

Fruit weight 20 oz – up to near 2 lbs. – ripe fruit skin rose over yellow – moderate fiber – taste 7/10 – flesh juicy

**Graft Types for Mango Trees
Include
Bark Inlay,
Cleft,
Modified Cleft (Whip-and-
Tongue),
and Saddle.**

**Handouts should be available at
the of this session.**

Types of grafts – mango trees and deciduous fruit trees:

In frequency of use order – modified splice aka whip-and tongue – cleft and modified cleft – bark inlay – saddle – splice

Suggestions:

– Cambium contact maximum.

– Wrap plastic tape tightly – press cambium of scion to that of rootstock

– **Important: remove the grafting tape** after several months.

Not too soon else union will be lost and graft worthless.

Don't wait too long – only several months.

Don't forget – may girdle the union, first causing a narrowing, then the tree will likely break at the union – happened to me

Grafting handout is available at session's end shows some grafting types, but I forgot to include the last hint.

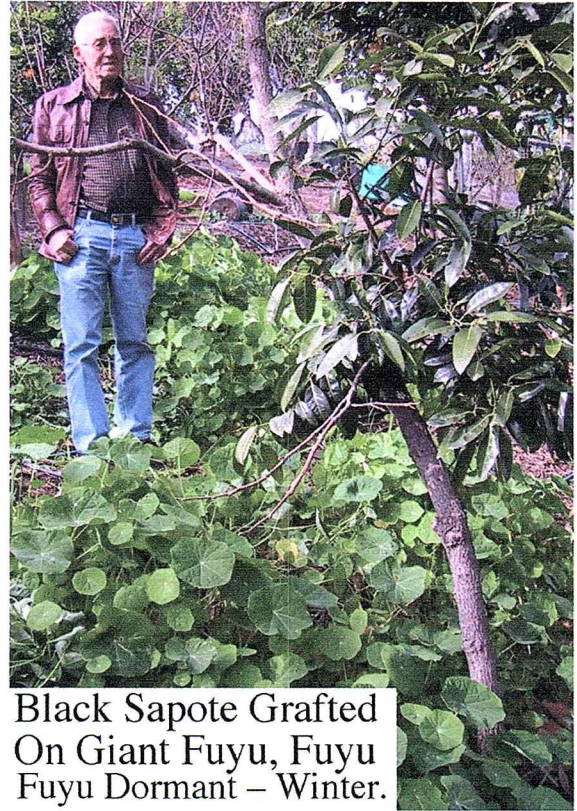
To Move A Small Mango Tree

- 1. Root-prune the mango with a shovel.
- 2. Dig it up, keeping the root ball intact.
- 2. Place the mango root-ball in a large plastic pot.
- 3. Move tree to a shady location.
- 4. Enclose the mango tree below the leaves with a large plastic bag.
- 5. Keep soil moist. Replant after few weeks .
(Trees usually survive.)

How to (sometimes successfully) move a younger mango tree:

1. Root-prune the mango with a shovel a week or so before digging it.
2. Dig it up, and try to keep the root ball intact.
2. Carefully, place the mango root-ball in a large plastic pot.
3. Move the potted tree to a location out of the sunshine.
4. Enclose the mango tree below the leaves with a large plastic bag; pruning only if necessary.
5. Wait a few weeks to see that the tree is surviving, then re-plant it.

Giant Fuyu
W/Black
Sapote Graft
Winter view –
Jim Neitzel
looks at my
unusual
combination



Black Sapote Grafted
On Giant Fuyu, Fuyu
Fuyu Dormant – Winter.

Black sapote (persimmon) scions
Grafted several to black sapote tree
Grafted to giant Fuyu persimmon
Winter view from distance – mistletoe

Geo Emerich
Left-over scion
Blooms annually – no fruit

**Apples – Anna,
‘Improved’
Anna, Beanie’s
Choice
(shown)
George
Moersberger**



Anna apple – universal favorite – ‘Improved Anna’ – similar to ‘Anna’
– perhaps ships better – I prefer original ‘Anna.’

George Moersberger NAFEX (North American Fruit Explorers)

Exchanged scions with members Apple seedling ‘Beanie’s Choice’

Dwarf a tree – plant in hardware cloth basket – not only keep gophers away – constrict roots to dwarf tree

Had jujube – possibly layered – root suckers were same as parent tree

Malabar Chestnut-Bloom Buds and Blooms 070710



Malabar Chestnut – Attractive flowers – Edible nut (not exciting to eat)

This year – Blooms – No nuts yet

Selenicereus megalanthus

<http://groups.yahoo.com/group/PitayaFruit/>

Pitaya

12/2003 This
variety
blooms late.
Fruit
harvested
the next year



Paul Thomson Research and writing about pitaya

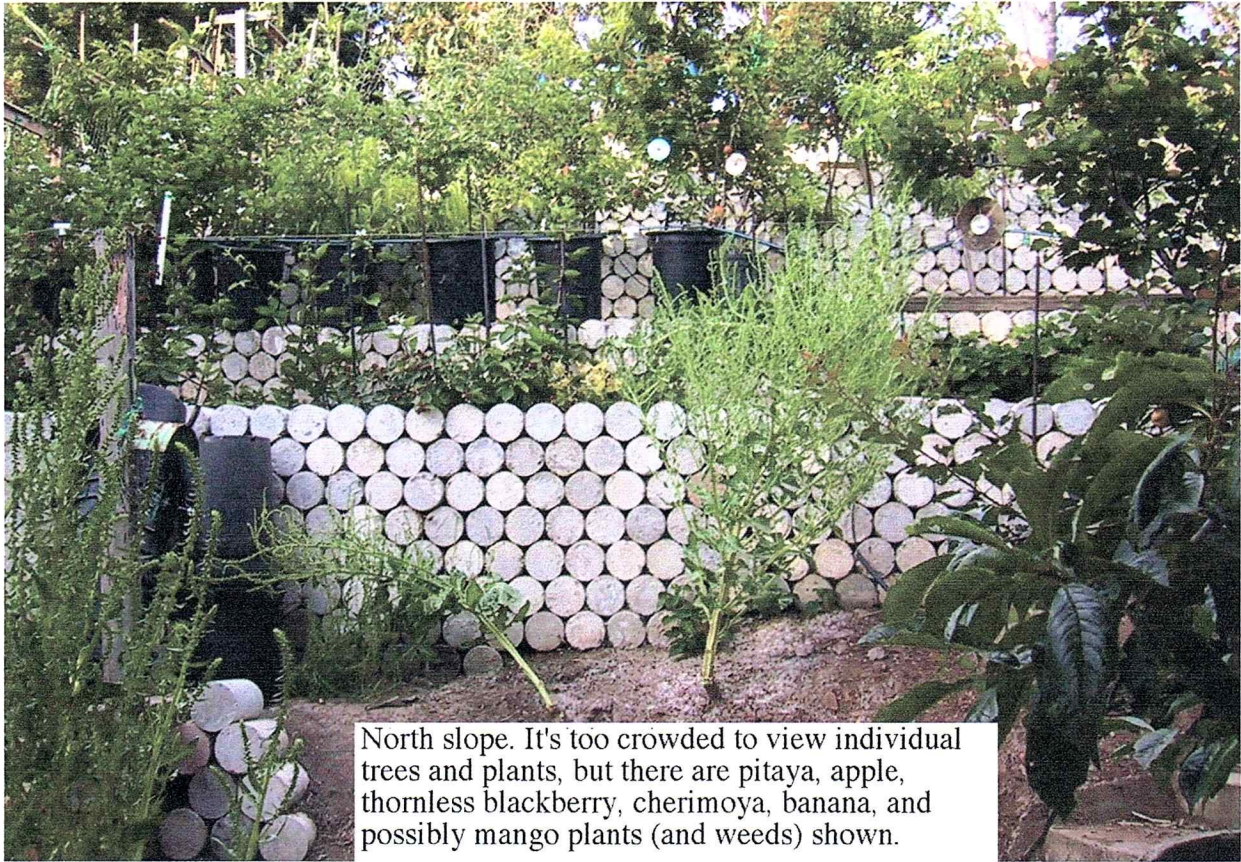
Now I'm growing them

Hylocereus and Selenicereus species

I assisted Paul – wrote MS Word revision – Pitahaya - A Promising New Fruit Crop for Southern California – selling it for him

2002 – started Yahoo newsgroup 'PitayaFruit' – 1,500 members

From Bottom Of North Facing Slope



View from bottom of terraced north-facing slope Black 15-gal pots – pitaya

Circles shiny CDs – discourage birds – trees and plants of apricot, pitaya, apple, thornless blackberry, cherimoya, banana, and possibly mango.

Concrete cylinders – terrace wall – core samples.

Concrete for government project are poured as cylinders – tested by subjecting to considerable force – survivors are approved – batch acceptable – otherwise rejected

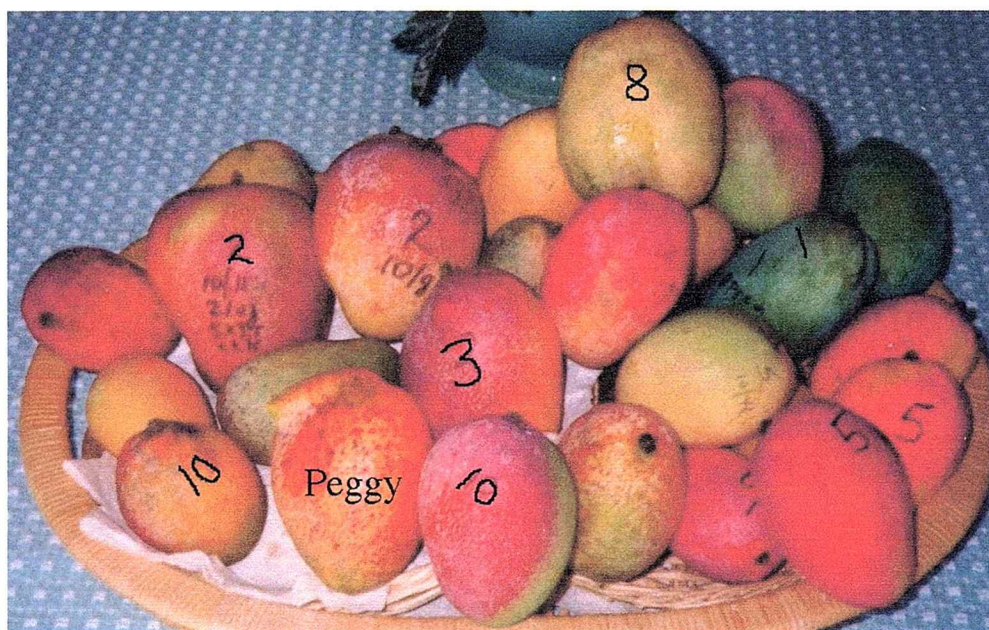
Finally all taken to the landfill – I rescued these from dumpsters – weight ~ 30 lbs each

Knee arthritis grew worse AND wrist arthritis bags – spent coffee grounds – Starbucks

Physical handicaps – need reduce work lower terraces – improve access terraces

Bottom clump giant timber bamboo – source of support material

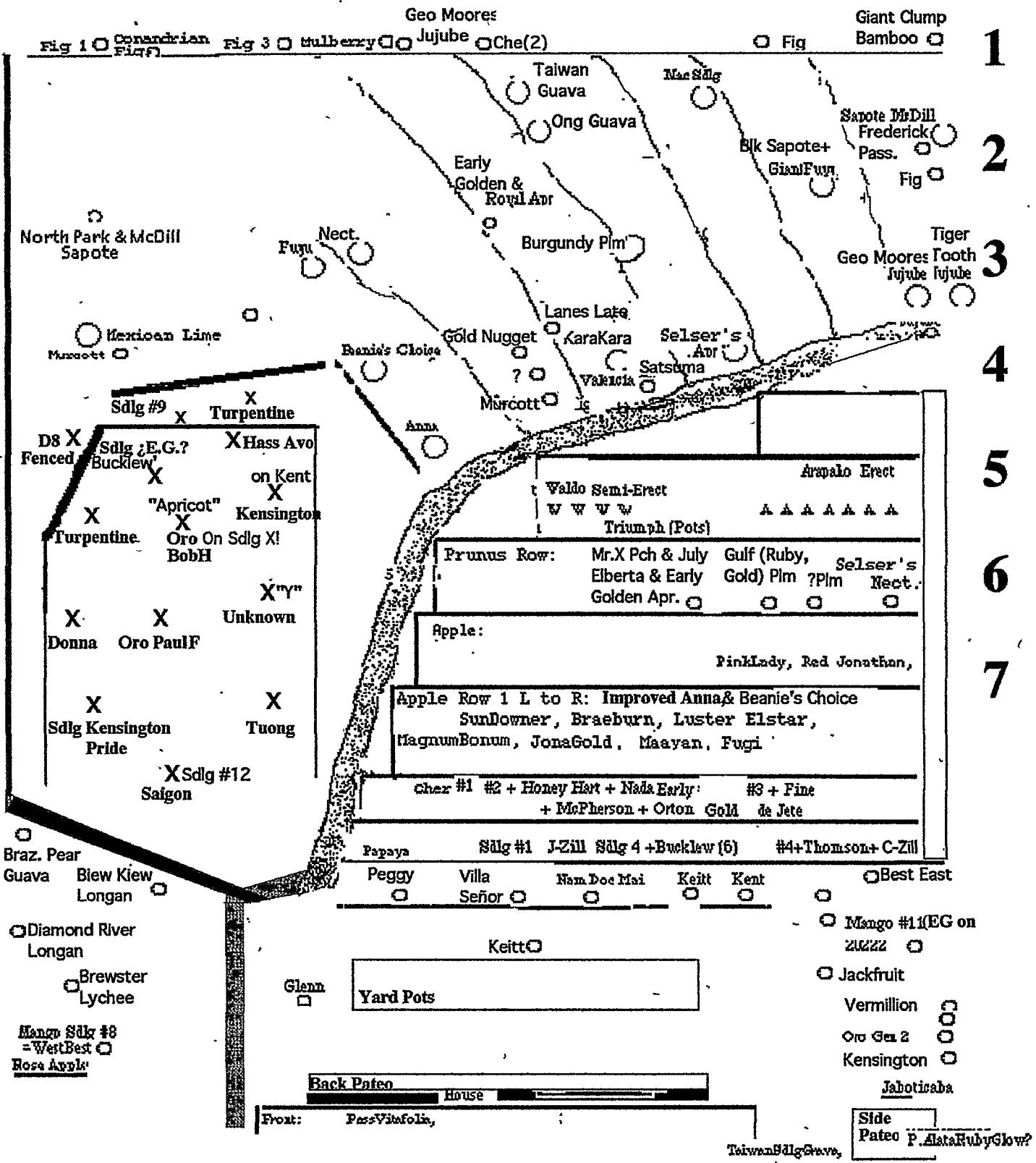
Did I mention that mangoes are
my favorite fruit?



Shown fruit – Peggy Winter – seedlings #1 – #2 – #3 – #5 – #10 – others

Valves

1
2
3
4
5
6
7



email rarefruit@san.rr.com

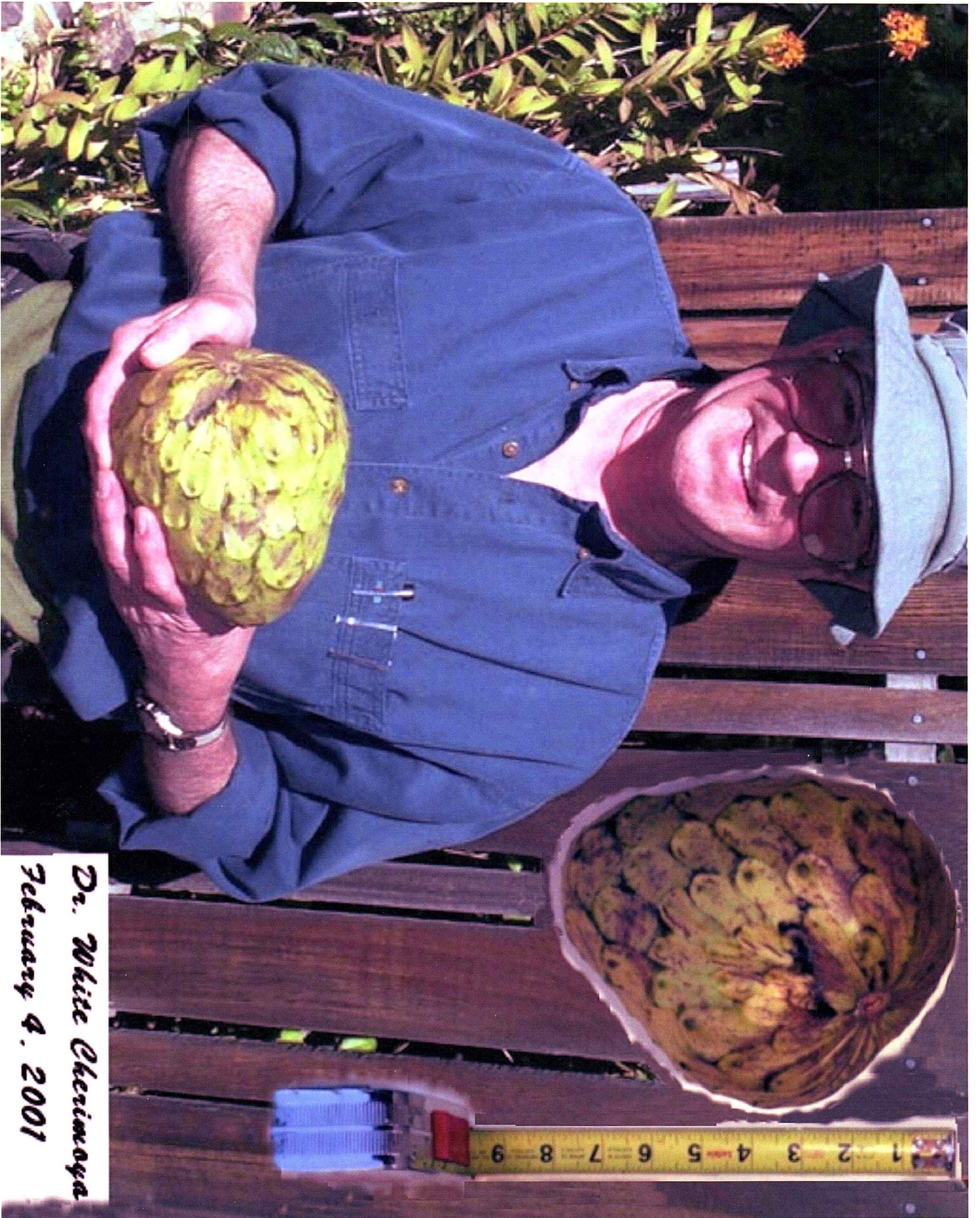
Contact Information

<http://www.rarefruit.com>

**To visit me, send an email
and we'll set up a time
good for both of us.**

I enjoy growing mangoes – plan to continue

If you visit my yard Sunday, please be VERY careful. Some areas steep and it's easy to slip.



*Dr. White Chirimoya
February 4, 2001*