



Hunt Institute for Botanical Documentation
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About the Institute

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

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

Rehovot, 23 July 1958
Went southward some 10
miles to banana region.
Plantings small - 10, 15
acres in size, even less.
Not many of them. Soils
light clays, rather sticky
and sandy clays. Reminds
me of Vere in Jamaica.
all Cavendish except
for the Arab banana
used as a windbreak
around the edges of the
plantations. Cavendish
planted in double rows

about 6x6 ft, then skip a row. One mother plant with one or at most two followers. Irrigation once a week sprinkled on 2" rows and 1" rows, every 10 days or so, on surface by flooding strips some 40ft wide every 15 days or so.

Their main problem is climatic, - the cold winters. Not so much a matter of frost damage as development of fruit.

They are doing an intensive
job of pruning to get
trees to shoot in May and
June. Remarkable unifor-
mity in stage of develop-
ment of fruit now hanging.

They say avg. wt. of
bunches on good soils is
40-50 lbs and it appears
to me they are right.

They tell me they have
enough fruit for local
consumption (during the
major fruiting period, and
I am not yet sure just

what this is) and they
export 500-600 tons
annually to Yugoslavia,
Greece, Italy, and former-
ly a little to Russia.
Their technical study of
pruning is remarkable.
But is not really a
banana climate, perhaps,
though I would not say
so without going through
a winter or two. I
don't see why they don't
grow for food, more Arab
bananas (cuties).

Hawaiian date grown here.
They say it is the only
one which matures sat-
isfactorily on the coastal
plain. I saw an avenue
planted with them, the
palms carrying fine crops.

This is the only region
I have known where you
have banana plantations
on one side of the
road, apples on the other.
Jonathans, Rome Beauty,
Delicious etc. Plums also.
Something between Fla. and So. Cal.

I am already convinced this
is an avocado country -
a natural for Guate-
malans and Guat-Mex
hybrids. We saw some
beautiful small plant-
ings this morning - one
of them 32 yrs old,
mostly Tuxteca others
15 yrs down to new plant-
ings. One 5 yr old
plantings, perhaps 2 acres
on low heavy soil,
a commercial failure
except on the higher

spots. But it doesn't look
like *Phytophthora* - just
lack of drainage. Fuente
is the main variety which
has been planted here.
Nabal is perhaps next -
they say it bears well,
inclined to overbear in
alternate years. They
are strong for Benik, as
a good bearer and good
quality. F. thinger looks
good to me. Seed of
parent tree brought from
Chile some 30 yrs ago,

probably a Fuerte seed.
Tree entirely different in
form from that of Fuerte -
Tall and slender; fruit
ripens 6 weeks earlier
than Fuerte. much like
this var in shape, size
and color, but quality
not quite so good. They
say it is more depen-
dable in production than
Fuerte. Should be tried
in California. Anaheim
is proving satisfactory in
production but quality
not too good. Fuerte

very erratic, especially near
the coast. Hass looks prom-
ising but not much can
be said about it yet.

Benik highly thought of
good ~~both~~ in product-
iveness and quality of
fruit. Dr. O. considers
Nabal and Benik the two
best-eating avocados.

Again - this is an avocado
country if you stay on
the light soils of which
there are plenty.

Mangos. In Dr O's opinion
the most promising vars.
here are Hadca - good ex-
cept for its peculiar and
local tendency to produce
so many very small
fruits; Paici, best eating
quality but unattractive
appearance, seems to bear
more regularly here than
in Jamaica; Maya, a
local seedling which looks
good to me (more data
later) and Malrooka
from Egypt, perhaps

an Indian mango. They have many vars on trial here, mostly from India, brought here by Dr O, and from Egypt. They also have most of the new Florida vars, e.g. Kent, Zell, Erwin, Edward, Davis Haden. Too soon to form much of an opinion about them.

They have a fine experiment of mango vars on different root-stocks. They should

have Madec for trial.

We are eating Marsh
grapefruit picked in
Jan or Feb and kept
without cold storage.
Rind slightly wilted
of course but flesh
and juice still fine.

Sweet lime used here
as a citrus rootstock.
Try it in C. A.

Send Mayapan budwood.

Two lychee vars here,
origin rather uncertain.
Fruits ripe now; we
sampled both last
night. One rather
small but flavor
sprightly; other much
larger, flavor not
quite so good but
satisfactory; seeds of
both are large, and
Dr O says bearing
habits unreliable.

One large Macadamea

Tree, carrying fine
crop of nuts to ripen
later this year. On
some cut-off limb
stubs Dr O has grafted
some scions from Hawaii
Annona cherimola, one
fine tree here does not
produce good fruits
but a student is hand
pollinating and getting
- fine set of perfectly
fertilized carpels.
In adjoining row in
squares. From

seed has come what I
am sure is an Atemoya
which has been prop-
agated and distributed
widely. Dr O says
squamosa fruits used
to appear in markets
here but the hybrid is
taking over. Muricata
has not been successful
here - they have never
tried divisefolia.

Pecans - Money maker
is on trial and looks
promising.

P.M. Visited Dr O's
avocado variety coll'n
a few kms from Rehovot.
Remarkably how many
vars. he has brought
together from Calif
and - perhaps more
from Calif than from
Fla, which was wise.
Also there are a few
local selections none
of wh. he says, is
very promising except
Ettinger already comm-
eial.

Ettinger
Nabal
Benik

I asked him what vars.
he would recommend
for commercial plant-
ing and he said:
50% should be Ettinger
and Fuerte - to get a
longer season than
either one alone. The
other 50% divided
about as follows: 30%
Nabal, 10 Hass and 10
~~some other good var.~~ ^{Benik}. He
doesn't think they
know enough about Hass
yet to go in for it.

heavily. The fruit size
is running small here.

This is a fine Twenty
year - big crop. Half
the Babal trees bearing
almost too much fruit,
the other almost nothing.
He says this happens
every year, and if
you average the yields,
heavy bearers (not the
same trees each year)
and the others, you
get a good average
yields per acre. He

is strong for Nabal.
It doesn't run above 1
lb. here. He says they
need to thin the crop
on the heavy bearers.
He likes the quality
of Berid greatly. I
tell him I think he
will like Mayapan
even better.

Hardly any W I's in
the collection - Fuchsia?
Is it a hybrid? - doing
fairly well - little fruit
this year.

Choquet - and Hall
and Winslowson not
showing up very well
yet.

Jaytee doing pretty well -
the Dr likes it. Does
not seem to have an-
thraxnose here. 13524
a tiny fruit - must be
some mistake here.
He does not yet think
much of Bacon, Zutano
and Rincon.

Quite a few trees in
this variety cell in are

not doing well, especially one patch of
a dozen trees or so.
It does not look like
root rot. Soil is very
sandy with some clay
in it; lying on a
slope of 2% or so.
Casuarina windbreak
on two sides. Best
variety collection in
the Old World, beyond
a doubt.

In some places there
is a rather heavy
fruit drop of avocados
up to 2" long. Why?

They are using the
mist spray technique
for various fruits.

Mr. H O M S K I

KEFAR

AZAR

near Tel Aviv

Israel

Nurseryman

at Mikveh Israel,
5 mi from Tel Aviv

Dickinson

Duke

Collinson

Taft

Fuerte - 2 types

Anaheim

Quat & Mex seedlings

Imported in 1924

Nabal
Berk
Fuente
Hass
Anaheim
Ettlinger

15 mos. from
planting
6-12 ft high
among branches

Zwi

ZWI SHACHAR
P.O.B. 2706
KIBUTZ GAASH
TEL AVIV
ISRAEL

KIBUTZ GAASH

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Z. Rappaport

Chief,

Division of Trees and Crops

Ministry of Agriculture

Hakyrish, Tel Aviv

1st period 1900 - 1925: we
plant them and God grows
them. 2nd period, horti-
cultural 1925 to date

Development of banana
horticulture: soil surveys,
selection of best soils -
clay loams, sandy loams,
and certain clays. How we
made our soil maps. 1st +
2nd and 3rd class.

Drainage investigations -
use of test wells and
plotting of profiles as
preliminary to installation

of drains - outlet,
run-off and deep ditches.

Study of propagating material
sword suckers, bits and
heads.

Spacing and pruning pro-
gram - depending on soil
and climatic conditions

Surface treatment - bush,
tillage; grass the enemy.
Irrigation

Fertilizers - just used to
deeper shade and control
grass; then to increase
weight - N only.

Irrigation - overhead &
surface

Diseases and pests - chiefly
Panama & Sigatoka -
but others coming into
the picture - scarring
beetle, snoko, red rust
caused by blights

Replant some or
maintain mulch on
surface

Better irrigation

Cut off suckers -
is there nothing better
for timing crop?

gedryga aley
Bout Zera

Lotus periorhynchus
the asparagus-like
plant from the garden
de Helmatatach
Oretava

Hellige Pehameter
german pH outfit

✓ Hass	G
✓ Jahuel	G x M?
✓ Benik (Mayapan?)	G
✓ Bacon	G x M
✓ Lule	G x A
✓ Waldin	A
✓ Zutano	M
✓ Rincon	G x M
Edranel	G
Jema	G x M
Lodge	?

✓ Simmons	A
Josa	G
MacArthur	G
✓ Gottfried	A x M?
Taltec	M
Cholula	M
Blackbird	M
✓ Newman Fuerte	G x M
✓ Fuerte	G x M
Kampong	G x A
✓ Hall	G x A
Motul	M?
Leucadia	M

Emerald M

Aztec G x M

Rodiles #1 G x M

Etinger G x M

San Juanes M?

Texas R-1 M

Atlixco num 14 369?

Probablemente 14 365?

mexicanes 14 366?

✓ Nabal G

Nadre A?

✓ Taylor G
Choquette G x A
Booth 8 G x A

Don Joaquin Ruiz de
la Reina

San Javier

José Rodríguez y Díaz
de Leizaola (Ministro
de Aire) Las Chapas de
Marbella

José Clavero
Xerez Malaga,
24 years old

Don Joaquin Ruiz
de la Reina

Camino de Vera
Ben Amargosa

Bulletin 'L' Avocatier'
by M. Carra and M.
Gueit, published by
Gest General of Algeria,
Garden d'Essai d'
Hamma, Alger 1949.

Some interesting items.

"La chair d'avocat
fait songer à une
beurre frais délicieuse-
ment parfumé au
pignon l'amande de

pen parasite, *Pinus*
pinna)

First introduced in
North Africa, at the
Jardin d'Essai
d'Alger, by Hardy
in 1843 - seeds rec'd
from West Indies.

Riviere and later

Dr Trabut made
further introductions

and attempts to determine
the possibilities of avocado
culture in Algeria.

M. Brichet, convinced
of the possibilities, made
a trip to U.S. to get
information. at time
of publishing this
bulletin 1949 there
is a small exper-
imental orchard at
Hamna and it is

desires to call the
attention of horticulturists
to this fruit tree.

Mentioned are the
following varieties:

Mexicans

Benedict, Blake,
Duke, Mexicola, Puebla,
Topa Topa.

Guatemalans

Nabal, Anaheim, Hass,

MacArthur

and the hybrid Fuerte
which has done well
at Algiers. Puebla has
been grown (is grown)
at the garden of Essai
de Hammam. They do
not make it clear what
varieties they have in
cult. except Fuerte &
Puebla

They show photos of
two baskets of fruits,

"fruits d'une variété
mexicaine" and the
other "fruits d'une var-
iété guatémaltèque"
without naming the vars.

These men end their
bulletin by saying it is
hard to predict the
acceptance which the public
will give to a new fruit.
They suggest several lines
of investigation -
assembling a collection
of species and varieties.

studies of adaptations,
climatic etc., development
of best methods of prop-
agation, pruning, product-
iveness and quality etc.

All of which sounds as
though not much has been
done except to assemble
and grow a small
collection of varieties
at Hammam.

