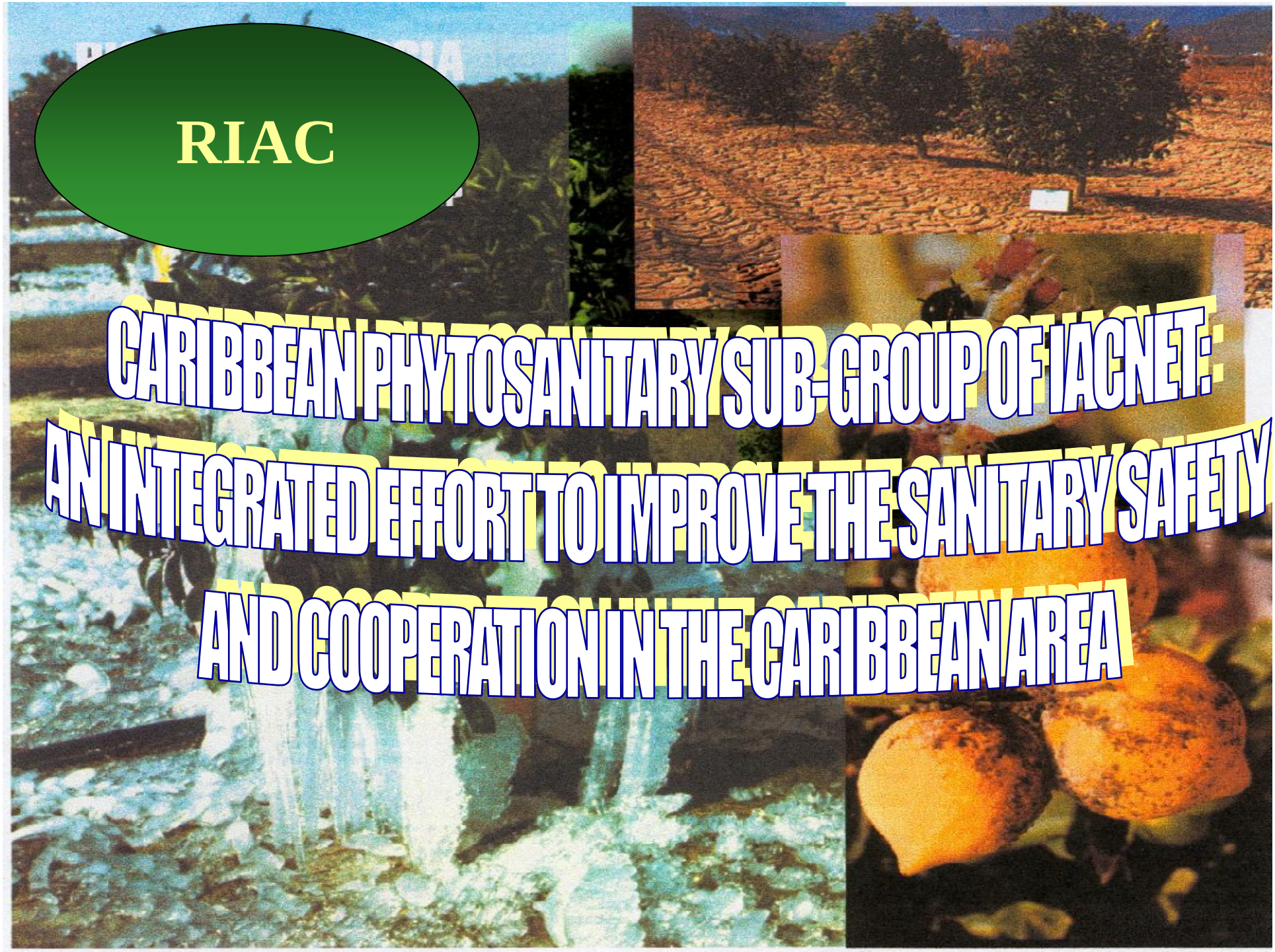
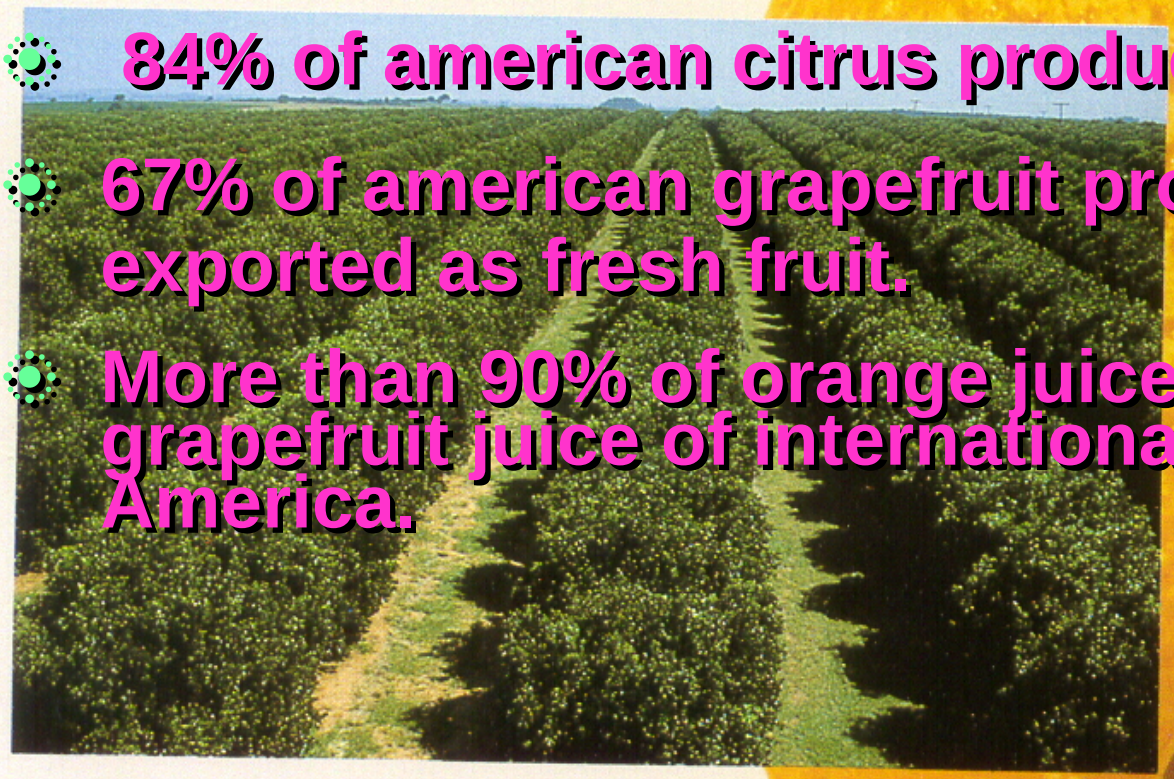
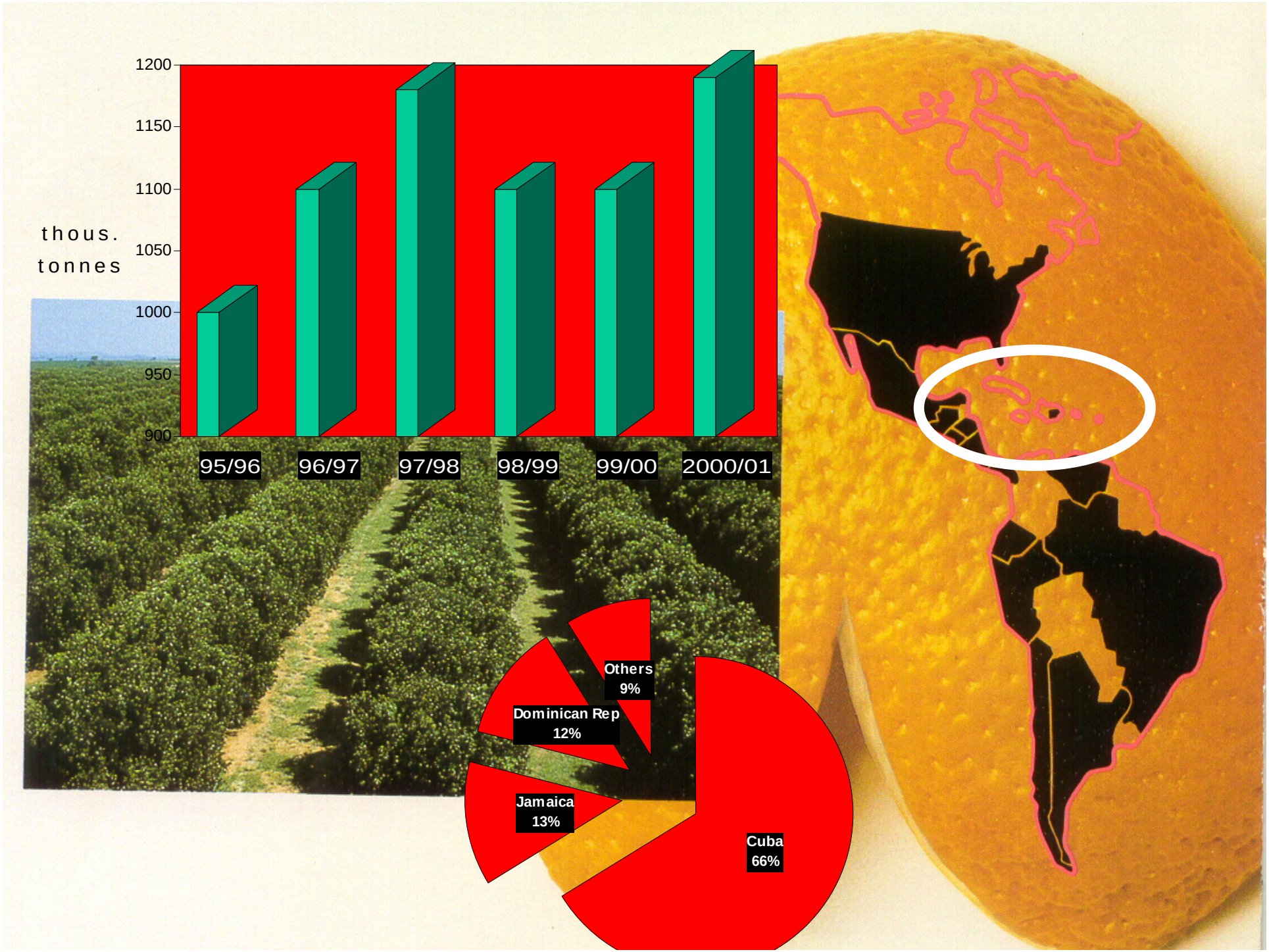
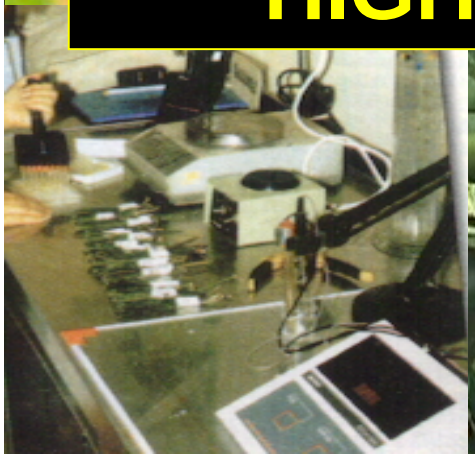

RIAC
CARIBBEAN PHYTOSANITARY SUB-GROUP OF IACNET:
AN INTEGRATED EFFORT TO IMPROVE THE SANITARY SAFETY
AND COOPERATION IN THE CARIBBEAN AREA

- 54% of world citrus production is from America
- 84% of american citrus production is processed
- 67% of american grapefruit production is exported as fresh fruit.
- More than 90% of orange juice and the 80% of grapefruit juice of international market are from America.




thous. tonnes
1200
1150
1100
1050
1000
950
900
95/96
96/97
97/98
98/99
99/00
2000/01
Others 9%
Dominican Rep 12%
Jamaica 13%
Cuba 66%

THE EFFICIENCY AND SUSTAINABILITY OF CITRUS PRODUCTION IN THE REGION IS THREATENED BY THE RAPID DISSEMINATION DURING THE LAST TEN YEARS OF SEVERAL PESTS WITH A HIGHT DESTRUCTIVE POTENTIAL

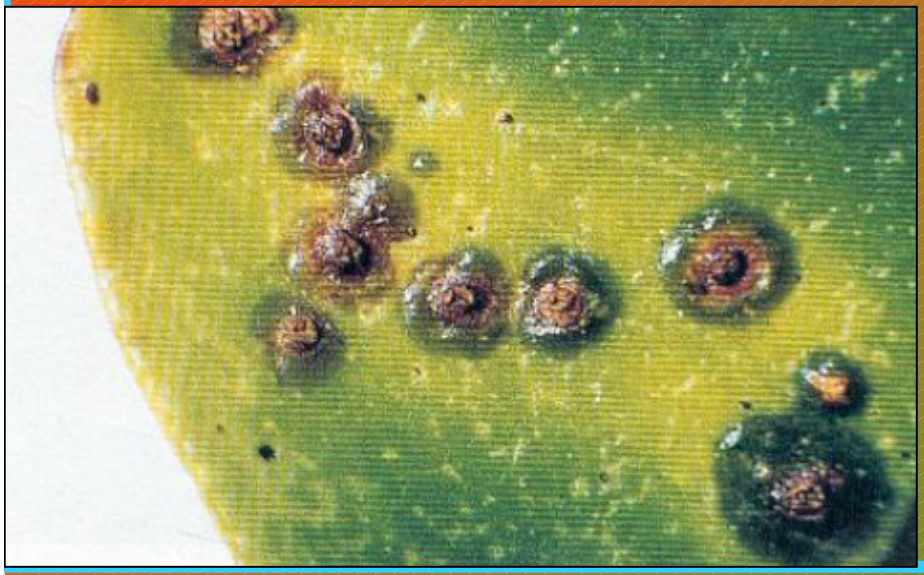


TRISTEZA –TOXOPTHERA COMPLEX

Citrus production in the Caribbean Basin (Caribbean Islands, Central America, Mexico and Florida) is threatened by the invasion of *Toxopthera citricida*.

Dissemination of brown aphid endargers more than 200 million of trees on sour-orange rootstock in Caribbean zone: spread of CTV's severe strains.

CITRUS CANKER



- Control of this disease has a very high cost and it is base on ERRADICATION of infected plants.
- Presence of citrus leaf miner apparently facilitates the propagation of bacterium.
- Its penetration into countries with fewer resources could cause a situation that would be very difficult to control.

VARIEGATED CHLOROSIS

The apparition of CVC in Brazil and more recently in Costa Rica, as well as the presence of its vectors in different american countries increase the risk of our region.

CVC attacks sweet oranges and destroy trees less than three years old. Diseased treees lose more than 60% of their potential photosynthesis with respect to healthy trees. Produced fruits cannot be sold (fresh or processed).

THERE ARE NOT EFFECTIVE CONTROL FOR THIS DISEASE.

FRUIT FLIES

Complex of fruit flies belonging to *Tephritidae* family cause important losses in production and fruit quality.

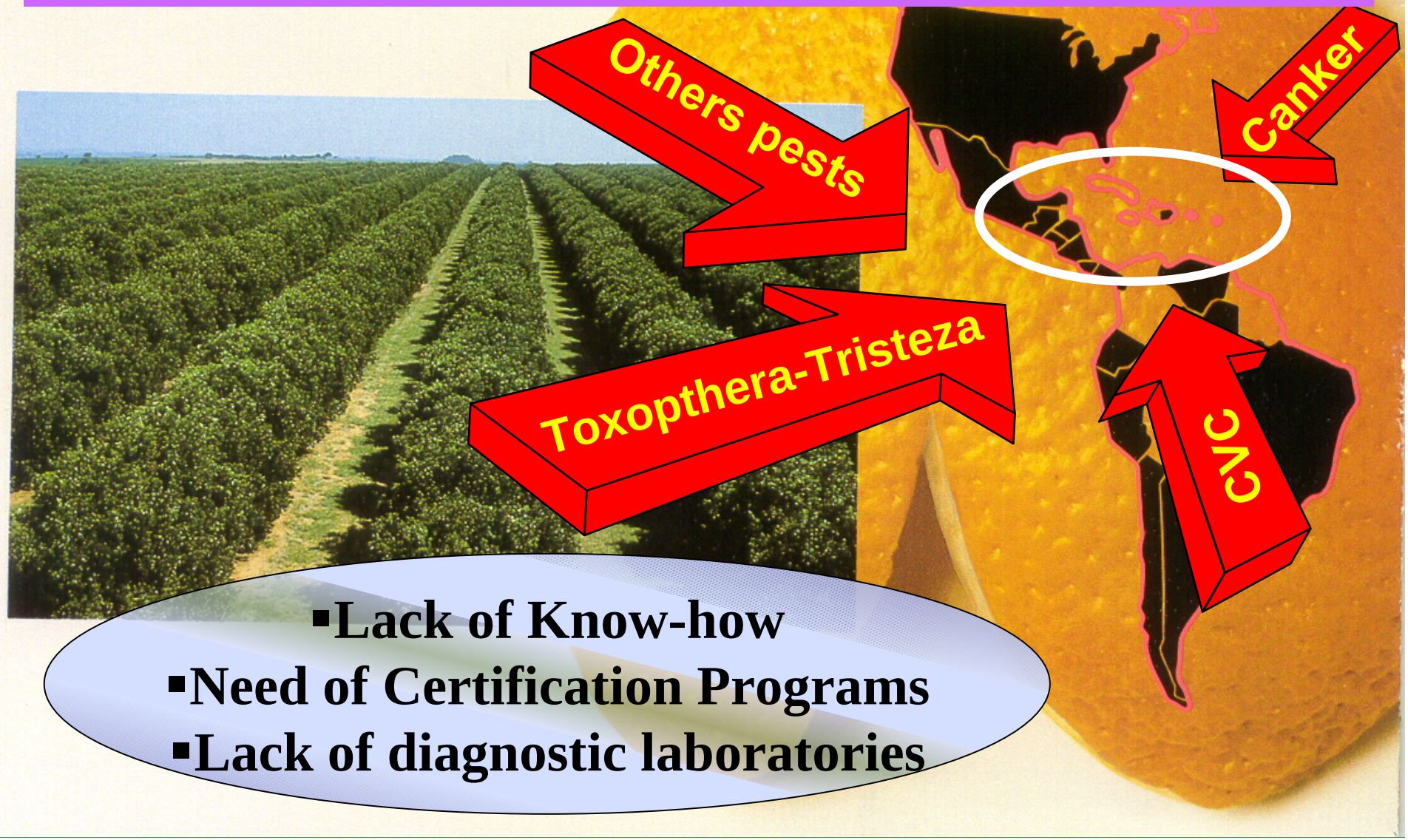
Presence of *Ceratitis capitata* (Mediterranean fruit fly) and species of *Anastrepha*, affect the exportation to U.S, Japan and European Community.

HUANGLONGBING (GREENING)

Huanglongbing is one of the most important obstacles to citrus crop in Asia and some African countries.

***Diaphorina citri*, vector of Huanglongbing is invading some of Caribbean countries, increasing risks of diseases introduction.**

THE MAJORITY OF CARIBBEAN COUNTRIES DO NOT HAVE THE CAPACITY NOWADAYS TO SOLVE THIS SITUATION AND AVOID GREAT LOSSES



- Lack of Know-how
- Need of Certification Programs
- Lack of diagnostic laboratories

STRATEGIES TO CONFRONT THE PHYTOSANITARY SITUATION IN THE CARIBBEAN REGION

- PROPAGATION OF HEALTHY TREES (NURSERIES)
- ESTABLISHMENT OF IPM AND ERRADICATION PROGRAMS.
- IMPROVEMENT OF PLANT QUARANTINE AND EPIDEMIOLOGIC SURVEILLANCE
- DEVELOPMENT OF PROGRAMS TO PRESERVE GENETIC RESOURCES.

Red Interamericana de Cítricos, RIAC

Inter-American Citrus NETWork, IACNET

R I A C

I A C N E T

To identify technical personnel working in similar areas

To identify the most important problems confronting citrus production and marketing in the region

To plan and carry out joint inter-regional projects on these problems

MEMBERS

RIAC

IACNET

- Antigua & Barbuda
- Argentina
- Bahamas
- Belize
- Brazil
- Chile
- Colombia
- Costa Rica
- Cuba
- Dominican Republic
- Ecuador
- El Salvador
- Guatemala
- Haití
- Honduras
- Jamaica
- Mexico
- Nicaragua
- Panamá
- Paraguay
- Peru
- Suriname
- Trinidad & Tobago
- United State of America
- Uruguay
- Venezuela


RIAC Red InterAmericana de Cítricos
InterAmerican Citrus NETwork IACNET
THE INTEGRATED PESTS MANAGEMENT GROUP OF THE INTERAMERICAN CITRUS NETWORK (IACNECT) REALIZED A SURVEY ABOUT THE MOST IMPORTANT PESTS IN AMERICA. RESULTS WERE:

MAIN DISEASES WITH WIDE DISTRIBUTION:

- Citrus Tristeza Virus
- Exocortis
- Psorosis
- Phytophthora
- Melanosis
- Citrus Blight

OTHER DISEASES WITH LIMITED DISTRIBUTION:

- Variegated Chlorosis
- Canker
- Leprosis

MAIN PESTS:

- *Brown aphid (Toxopthera citricida)*
- Other aphids species
- Leaf minner (*Phyllocnistis citrella* St.)
- Mites
- Thrips
- Fruit Flies
- *Diaphorina citri*

RIAC Red InterAmericana de Cítricos

InterAmerican Citrus NETwork IACNET

IACNET INICIATIVES

1. **REGIONAL PROJECT DIRECTED TO THE PRODUCTION OF IMPROVED CITRUS PLANTING MATERIAL IN CARIBBEAN BASIN.**

- **FAO-COMMON FUND**
- **2002-2004**
- **MEXICO-GUATEMALA-CUBA**
- **CAPACITATION FOR OTHERS IACNECT MEMBERS COUNTRIES**

PROJECT OBJECTIVES

- DEVELOPMENT OF NATIONAL CERTIFICATION
- STRENGTHENING OF NATIONAL SUPPORT SERVICES
- ENRICHMENT OF CITRUS PHYTOGENETIC RESOURCES, THEIR MULTIPLICATION AS FREE DISEASE MATERIAL; RESCUE AND CONSERVATION OF BIODIVERSITY

PROJECT

CITRUS CERTIFICATION PROGRAM IN CENTRAL AMERICA AND CARIBBEAN

ELABORATION OF DIDACTIC MATERIALS AND DEVELOPMENT OF WORKSHOPS AND SHORT COURSES

OTHER REGIONAL INICIATIVES

CIRAD, CTA,FIC, COOPERATION FUNDS

13 Caribbean countries
IICA, CARDI, IACNET

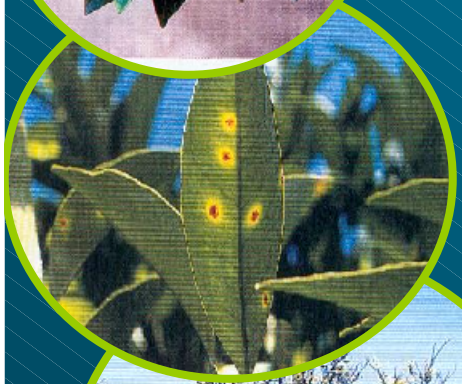
WORKSHOP ON PHYTOSANITARY PROBLEMS OF CARIBBEAN COUNTRIES

Guadaloupe, November, 2000

MAIN CONCLUSIONS OF THE WORKSHOP

- Global agreement on a regional phytosanitary project
- Request from participants regarding information, training and strengthening of technical and scientific capacities in the Caribbean

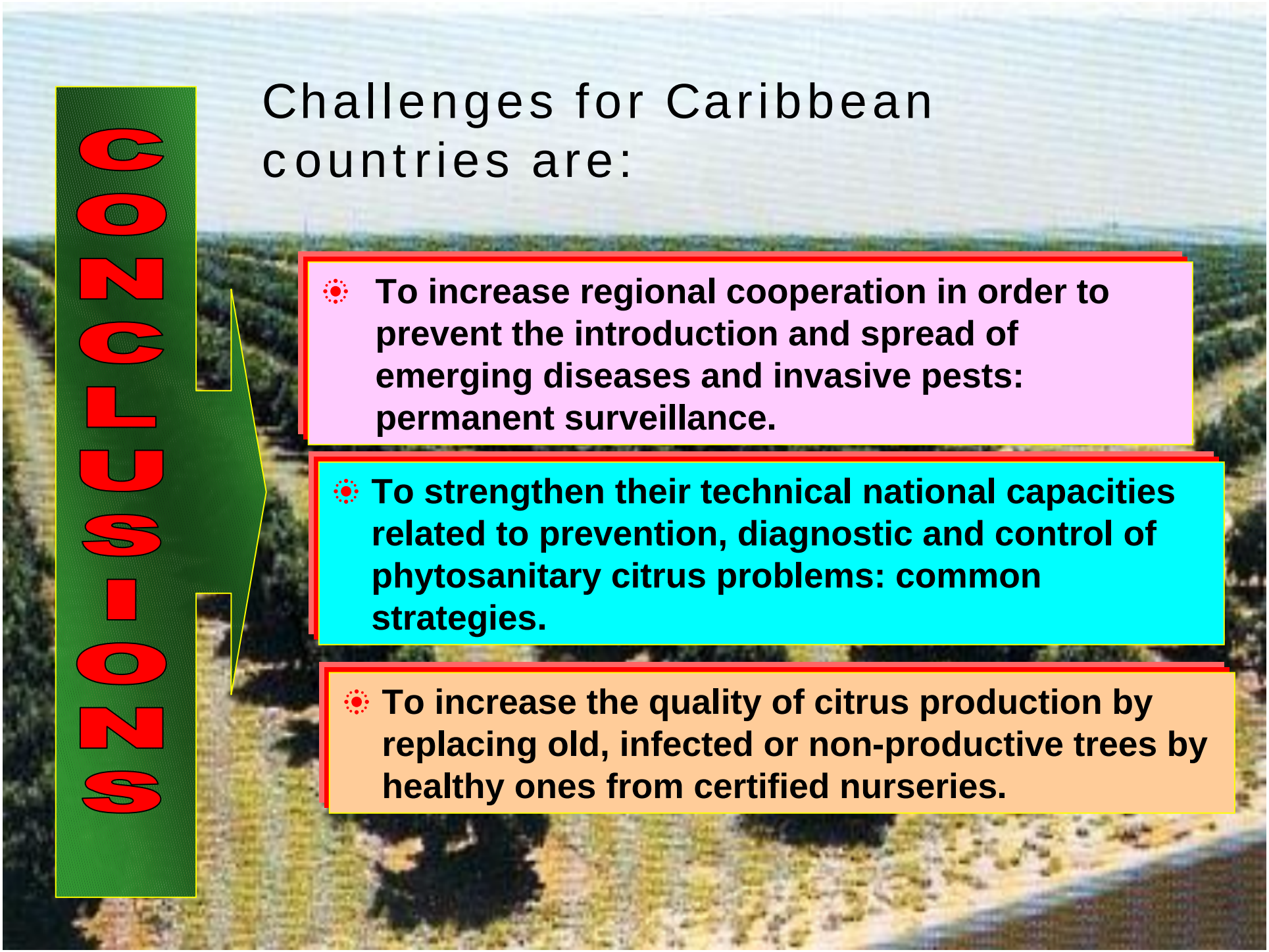
OTHER RESULTS...



- Creation of Caribbean Phytosanitary Sub-group of IACNET (Havana, 4/2001)
- Workshop on citrus emerging diseases and invasive pests (Varadero, 6/2001)
- Short course on certification and diagnosis of main citrus diseases (11/2000, 55 caribbean participants)

CITRUS PHYTOSANITARY SUB-GROUP OF IACNET: INMEDIATE TASKS

- ✓Organization of regional network of information: Data Bank of main pests and biological control
- ✓To organize a survey of pests and vectors present in the region
- ✓To organize technical training and a theoretical course on main citrus diseases and their rapid diagnosis with the collaboration of European and FAO authorities and the participation of prominent French and regional specialists.
- ✓To elaborate standard protocols for CTV detection and to train national staffs in order to facilitate the adoption and enforcement of national mandatory certification programs.


CONCLUSIONS
Challenges for Caribbean countries are:
To increase regional cooperation in order to prevent the introduction and spread of emerging diseases and invasive pests: permanent surveillance.
To strengthen their technical national capacities related to prevention, diagnostic and control of phytosanitary citrus problems: common strategies.
To increase the quality of citrus production by replacing old, infected or non-productive trees by healthy ones from certified nurseries.


Regional imperative is
to develop common
strategies for stopping
the dissemination of
devastating pests
which risk the
sustainability of citrus
production