

PROCEEDINGS OF THE

FLORIDA STATE HORTICULTURAL SOCIETY



*Scientific Research
Florida Department of Citrus
“Pioneers in Citrus Harvesting, Postharvest
and Processing Research
since 1942”*

Vol. 113, 2000

Published by the Society, May 2001

Florida Department Of Citrus - Scientific Research Programs

A TRADITION OF OVER FIFTY YEARS

Scientific Research at the Florida Department of Citrus was started in 1942 following industry requests and a mandate by the Florida legislature. The Florida Citrus Commission funds all programs from an excise tax paid by the growers on orange, grapefruit, tangerine and tangelo production.

Today, a staff of over 30 scientists, technicians and support personnel are conducting a diversified scientific research program focused on enhancing Florida citrus industry competitiveness in the global citrus market. Three major areas of research are emphasized: Mechanical Harvesting, Fresh Fruit/Postharvest and Processed Citrus Products.



Mohamed A. Ismail, Ph.D.
Scientific Research Director,
Fresh Fruit

Fresh Citrus Fruit Research is directed by **Mohamed A. Ismail, Ph.D.** A postharvest technology scientist with over 34 years with the Florida Department of Citrus. Fresh fruit programs are focused on improving quality and increasing consumption of fresh Florida citrus and development of minimally processed citrus products. Research on postharvest citrus quality, postharvest decay control, microbiological safety, quarantine security and peeling technology have contributed to the viability of the fresh citrus industry in both the domestic and overseas markets. Department scientists have recently developed a citrus peeling machine for commercial use. This technology should boost the fresh-cut citrus market, enhance convenience and increase fresh citrus consumption.

Processed Products Research is directed by **William Stinson, Ph.D.**, Food Scientist, with over 30 years of experience in product development. The program's mission is "to provide technical support to enhance the FDOC's regulatory and marketing efforts, and the development of knowledge, methods, equipment, product prototypes and technology as it relates to processed citrus juices, citrus products and citrus containing products." Major programs include enhancing citrus utilization, isolation of phytochemicals from non-juice solids waste stream and grapefruit juice improvement program. Other programs include product monitoring and development of a nutritional database for citrus products. The Department also supports and sponsors a wide variety of medical and nutritional research by leading scientists to enhance the healthfulness of citrus fruit and citrus juices.



William Stinson, Ph.D.
Scientific Research Director,
Processed Products



Galen Brown, Ph.D.
Harvesting Program Administrator

The Harvesting Program is administered by **Galen Brown, Ph.D.**, a harvesting expert with over 30 years of experience in mechanical harvesting of fruit crops. The program is aimed at developing commercially viable mechanical harvesting systems that increase harvesters efficiency and reduce harvesting cost. The Florida Citrus Harvesting Research Council and the Florida Citrus Commission have supported development of several harvesting systems for groves of varying ages, tree density and tree configuration. The Council and the FCC have also supported research conducted by University of Florida scientists and engineers on abscission to enhance efficiency of fruit removal.

All research units provide FDOC management with technical information in support of the marketing programs in both domestic and international markets. Scientific Research staff is committed to serving the technical and scientific needs of Florida growers, packers and processors.

This special coverage gives the reader a glimpse of FDOC Scientific Research Programs and Staff. On the front cover, six pictures are depicted. They represent a citrus grove, a trunk shake and catch harvesting system, FDOC prototype citrus peeling machine, fresh peeled citrus product, a citrus processing plant and orange juice.

The staff is pictured on the back and inside the back cover, with their titles and research specialties.

The Florida Department of Citrus Scientific Research Staff is located at the Citrus Research and Education Center, University of Florida at Lake Alfred, Florida. For more information about our scientific research activities, visit the Department of Citrus web-site at www.floridajuce.com.

The cover was sponsored by FMC Corporation, Citrus Systems, Lakeland, FL. The Scientific Research Department appreciates this contribution and values the cooperative working relationship with FMC.