

## **REPORT OF THE AVOCADO RESEARCH COMMITTEE OF THE CALIFORNIA AVOCADO SOCIETY**

This year the President of the Avocado Society has seen fit to have a chairman other than the President to chair the Research Committee. This committee has felt that a review of all research projects relating to avocados should be made and classified as to importance, desirability, etc. A review should also be made as to the role the Society should play in the over-all research program.

The day is gone when the Society carried on the majority of all research on the avocado. There are today other groups who have taken on some phases of research, so, to get the most for our money we want to make sure that there is a minimum of duplication. The Advisory Board is governed by law as to its ability to use funds on research and can only do so if it relates directly to marketing. CADO goes a little farther failed but is primarily interested in the marketing side. There are other groups which come into existence from time to time for certain problems, but the California Avocado Society is still the main voice for the avocado growers of California in the field of research. It is with this in mind that we sat down at a table recently with our long time friend, Dr. Al Boyce. With him was his able successor, Dr. Boyse Day, and the heads of the departments interested in avocado research.

The University expressed its needs and projects and the spokesmen for the Society expressed theirs. There were several places where the Society could help out monetarily as well as physically. These will all be considered and acted upon by your Board of Directors. One such project was the recent grant to the Regents of funds for extension of a lease on some property being used by the University for experimental work on avocados.

The projects decided upon at the meeting as important, were as follows:

- 1) Root Rot
- 2) Breeding
- 3) Physiology
- 4) Plant Nutrition
- 5) Nutritional Value of Avocados

Root Rot was and still is the Number One problem. The others fall into place in various order.

The following were listed by project number and staff members participating by the University:

## A. AGRICULTURE ENGINEERING

Project #H-2344 — Development and engineering evaluation of picker positioning systems and mechanical aids equipment for citrus harvest. R. L. Perry, R. M. Perkins, G. Brown, D. Scott.

## B. BIOCHEMISTRY

#1701—Biochemistry of maturation in avocado fruits—L. C. Erickson.

#2048—Factors influencing market quality of mature avocado, fruits—I. L. Eaks.

## C. BIOLOGICAL CONTROL

#1493—Biological control of red, yellow, purple and other Diaspine Scales on citrus, avocado, walnut and ornamentals—P. H. DeBach.

#1495—Biological control of mites on citrus, avocado, walnuts, and ornamentals—J. A. McMurtry.

#1496—Biological control of Lacanine Scales, mealybug, aphids, whiteflies, and other Homopterous insects of citrus and other sub-tropicals—P. H. DeBach.

#1741—Effect of pesticides on the natural balance of mites and insects in avocado orchards—J. A. McMurtry.

## D. ENTOMOLOGY

#1340—Biology and control of insect and other pests of avocados— W. H. Ewarts, F. A. Gunther, J. C. Ortega.

#1576—Development and utilization of analytical methods for insecticides and acaricides as residue methods and as composition methods—F. A. Gunther, T. R. Fukuto, L. K. Gastón.

## E. HORTICULTURE SCIENCES

#1025E—Soil applications of chemicals for correction of zinc deficiency of citrus and avocado trees—T. W. Embleton, E. F. Wallihan.

#1131—Avocado Breeding—B. O. Bergh, W. B. Storey.

#1434—An avocado trial of avocado varieties—W. B. Storey.

#1458—Avocado rootstock experiments—W. B. Storey.

#1630—Growth, Physiology and fruiting of avocado trees as related to mineral nutrition culture and related factors—T. W. Embleton, S. B. Boswell, W. W. Jones, C. K. Labanauskas.

#1845—Plant regulator influences on citrus and avocados—C. W. Coggins Jr., H. Z.

Hield, L. N. Lewis.

#2001—Labor efficiency in citrus and other horticultural crops— R. J. Smith, R. L. Perry, D. T. Seamont.

#H-2156—Influence of environment, chemical additives and air pollutants on apparent photosynthesis and respiration by intact horticultural plants—O. C. Taylor.

#### F. NEMATODOLOGY

#1618—The biology and control of nematodes attacking avocados and other sub-tropical plants—S. A. Sher.

#### G. PLANT PATHOLOGY

#944—Disease of avocados and other sub-tropicals and tropical crops—G. A. Zentmyer, L. J. Klotz, P. H. Tsao, B. O. Bergh, F. T. Bingham, R. B. Harding.

#944A—Avocado sun-blotch diseases—J. M. Wallace, P. R. Desjardins.

#1649—Nature of fungitoxicity to phytopathogenic organisms— J. J. Sims, J. B. Kendricks, G. A. Zentmyer.

#2086—Fate of fungicides in soil and factors affecting their efficiency in controlling plant diseases—D. E. Munneke, J. W. Eckert, M. J. Kolbezen.

#H-2285—Nature of biological antagonism in soil and biological control of root disease fungi—P. H. Tsao, R. M. Endo, J. B. Kendricks Jr., G. A. Zentmyer.

#### H. SOILS AND PLANT NUTRITION

#H-1025A—Iron nutrition of plants—E. F. Wallihan, H. D. Chapman, T. W. Embleton.

11 #1373—The nitrogen and other major element requirements of citrus and other sub-tropical fruits—H. D. Chapman, C. F. Liebig Jr., E. F. Wallihan, W. W. Jones.

#1408—Soil Moisture—Plant relations of avocado trees—S. J. Richards.

#1546—Soil physical conditions in relation to irrigation—S. J. Richards, J. Latry Jr., L. H. Stolzy, G. H. Canell.

#1694—Basic mineral nutrition of avocado trees—F. T. Bingham, T. W. Embleton, C. K. Labanauskas.

There will be some change in the above projects due to a juggling of the budget, but to date they will remain as is.

Many of us have known Dr. Boyce for many years and are going to miss his guiding hand. However, he states that he will be available for guidance in the future whenever we need him. We are very fortunate indeed to have a man such as Dr. Day to pick up the reins. We feel we are in good hands.

However, to maintain our prestige with the University as to being the voice of the

California Avocado Industry we need to increase our membership. With greater acreage and more demand for research this seems a small thing to expect, but money talks when it comes to requests for research at the University level. To get it we have to have members. Let's get them. We have men willing and able to work on our problems. Your Board devotes many, many hours trying to work out the needs of our industry. You can help by explaining the Society to your neighbor if he is not a member and get him to become one. The machinery is there, let's use it.

**Research Committee Chairman**

*George B. Bowker*, Calif. Avocado Society

**Committee members**

*Walter Beck*

*William Catlin*