

## MAINTENANCE AND DISTRIBUTION OF VIRUS-DISEASE FREE PROPAGATING MATERIALS

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The Foundation Plant Materials Service of the University of California maintains a Foundation Orchard and Vineyard of varieties that have been indexed and found to be virus-disease-free by Plant Pathologists of the University of California and the California Department of Agriculture. Propagation wood from these sources is distributed to nurseries and growers who are participating in this program, state agencies, foreign countries, and to growers and nurseries in general.

The screenhouse area is used to maintain the various stone fruit tree varieties in isolation. In addition, there is a small Foundation-orchard that was planted this spring in which will be grown two trees of each variety to serve as a source of budwood and graftwood.

Adjacent to the screenhouse are the liner beds in which registered Mahaleb and Mazzard seedlings are grown. The small liners are grown for distribution to nurseries as lining-out-stock; the orchard size liners are raised for growers. About 2 miles west of the isolation screenhouse, is the Foundation vineyard, in which the standard rootstocks, table, raisin and wine varieties are maintained. Material is distributed to nurseries and growers.

## REGISTRATION AND CERTIFICATION

STANLEY MATHER  
*California State Department of Agriculture*

Growers may use plant materials furnished by the University's Foundation Plant Materials Service for the propagation of nursery stock in accordance with regulations for registration and certification adopted by the State Department of Agriculture. These regulations are formulated when clean propagating sources are developed and when specific procedures are needed to maintain the virus cleanliness of the nursery stock and its identity. In the Department of Agriculture, methodology studies for the certification of nursery stock are carried on by the Bureau of Plant Pathology and procedures so developed are written into regulations which are administered by Nursery Service. The registration and certification programs are optional and self-supporting through fees collected to cover the Department's cost of indexing, testing, inspection, and supervision required by the regulations.

The development and operation of these programs exemplify the cooperation that exists in California between the workers of the University of California, the U. S. Department of

Agriculture, and the State Department of Agriculture. This cooperative effort has resulted in the development of registration and certification programs for citrus, deciduous fruit trees, grapevine, and strawberry plant nursery stock.

There are now 120 nurserymen and growers participating in these programs. The term "California Certified" will identify to the agricultural industry nursery stock which is the best available from a pest cleanliness standpoint.

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## FRIDAY EVENING SESSION

Moderator: Dr. Dale Kester

### PLANT PROPAGATION IN THE YEAR 2000

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Perhaps one does not often realize that the year 2000 is only thirty-six years ahead. It's not a very long time and, probably, that year will be no different than the year before and the year after. So we can look at the year 2000 as an ordinary year and can compare it with other ordinary years that have passed before. If we do this, we can look back in history and see what happened in the last thirty or forty years. We then observe that the discoveries which were made thirty or forty years ago are now being applied to the field of plant propagation.

#### *Looking Back*

For example yesterday, Dr. Snyder told you that plant growth hormones were discovered about thirty years ago. In fact, no one knew for sure what the substances were chemically until 1934, exactly 30 years ago, when Kogl, Haagen-Smit and Erxleben found that indoleacetic acid was active in plant growth. It was also in 1934 that Prof. Went found that they stimulate the rooting of pea stems. It was then shown very rapidly that, indeed, many auxins were very active in promoting the rooting of cuttings.

I can give you another example. Almost a hundred years ago Julius Sachs, a German plant physiologist, studied the nutrition of plants. He wanted to know what the soil furnishes the plant in order to make it grow. He tried to make solutions which would replace the soil. He and other workers, for example, Prof. Hoagland here in California, determined which chemical elements were essential for plant growth and which ones were unnecessary. The result of this work is that it is possible