



Overview of Citrus Clonal Protection Program foundation block planting at the University of California Lindcove Field Station. (Photo by Max Clover)

Citrus program provides disease-free trees

California's citrus industry now can draw from a vital source of true-to-name, disease-free budwood to cleanse its orchards of trees carrying potentially devastating viruses and virus-like pathogens. This clean citrus material comes from the foundation block of the Citrus Clonal Protection Program (CCPP), formerly known as the Citrus Variety Improvement Program.

Situated at the University of California Lindcove Field Station, the CCPP foundation planting is the result of 16 years' work by plant pathologists, horticulturists, and Cooperative Extension personnel. Edmond C. Calavan and Walter Reuther, who pioneered the CCPP for the plant pathology and plant sciences departments at U.C., Riverside, continue to serve as co-chairman of the program. Also helping in the program are the U.S. Department of Agriculture, County Agricultural Commissioner offices, the California State Seed and Nursery Serv-

ice, and the California Citrus Nurserymen's Society.

The Lindcove foundation block contains more than 300 trees of outstanding horticultural selections from all important citrus scion and rootstock varieties. More than 50,000 buds from these trees have been distributed so far to qualified California citrus nurserymen under the Citrus Budwood Certification and Registration Program. With permits and inspection by the California State Seed and Nursery Service, nurserymen increase budwood collected from the CCPP foundation block. Trees grown from this budwood then can be sold as certified trees.

Virus and virus-like diseases are an ever-present threat to California's citrus growers. For example, tristeza disease appears to be on the rise again in many citrus-growing areas. Tristeza wiped out more than 3 million California citrus trees before the late 1960s. At that time, clean

planting stock became a requirement, and growers began to use Troyer citrange rootstock for new plantings because of its tolerance of the tristeza virus.

The only way growers can rid their orchards of virus or virus-like diseases is to remove infected trees and replace them with healthy ones. The Lindcove foundation block makes this possible with its true-to-name trees thoroughly screened for all virus and virus-like pathogens known to cause diseases in California citrus orchards.

To the best of current knowledge and techniques, selections in the foundation planting are free of these pathogens: tristeza, seedling yellows-tristeza, exocortis, psorosis, concave gum, infectious variegation, vein enation, yellow vein, dweet mottle, tatterleaf, impietratura, cristocortis cachexia, and stubborn.

(Forrest D. Cress, Communications Specialist)