



JOHN A. ZIVNUSKA
Dean
School of Forestry and
Conservation, Associate
Director, Agricultural
Experiment Station,
Berkeley

CALIFORNIA'S WILDLANDS —a multi-crop resource

THE TYPICAL PHOTOGRAPH of California's productive lands shows an intensively cultivated orchard or field, with rolling hills or steep mountains in the background. Too often only the agricultural lands in the foreground are recognized as a major factor in California's economy with the background being considered only as a scenic setting. Certainly the scenic qualities of the wildlands are in themselves of major importance to the state, requiring the most careful consideration in land use. However, wildlands are also productive in other ways.

Some 65 million acres of hilly and mountainous terrain are covered with commercial and non-commercial forests, woodland-grass, range forage, sagebrush, chaparral, and alpine tundra. An additional 22½ million acres is desert or barren land—making a total of 87½ million acres, a land area some eight times that devoted to cultivated agriculture.

Nearly nine-tenths of the land area of California, these wild and desert lands contribute to human welfare in many ways: (1) They sustain California's position as second among the states in commercial lumber production, third in plywood production, and now the home of an expanding pulp and paper industry—enabling the state's urban population to enjoy the highest per capita consumption of forest products in the world in its homes and other day-to-day activities. (2) The 65 million acres of mountains and foothills yield an annual water crop of 68 million acre feet. Often said to be California's most important crop, water assists in the production of all other crops. (3) The wildlands yield range forage with an annual carrying capacity of 12 million animal unit months. (4) The wild and desert lands are invaluable for outdoor recreation for the people of the state and of the nation.

The Division of Agricultural Sciences has long recognized the productive role of the wildlands. Much of the work in

this area has been done by the School of Forestry and Conservation at Berkeley which has a program dating back to 1914. In 1958, the Wildland Research Center was established within the Division as a means of stimulating and coordinating study.

The goal of wildlands programs within the Division is simply to increase the yield of physical products from the wildlands while protecting the quality of the landscape. This dual goal has been challenged on the grounds of a possible incompatibility between crop production and environmental quality. While there may ultimately be some incompatibility, great opportunities exist today at the operational level for progress in both directions.

Improved methods of pulping can increase the yield of products from a given volume of wood, and simultaneously reduce or eliminate air and water pollution. New techniques in the ecological management of streams can increase the yield of trout for fishermen while also improving the quality of the water for everyone. More rapid and dependable methods of forest regeneration can permit an increase in the allowable cut from the forests, and simultaneously contribute to the beauty of the landscape. New methods of manipulating brush fields can reduce fire hazards and at the same time increase their carrying capacity for deer or domestic stock. Rapidly growing young forests contribute as commercial forest products and in the maintenance of the needed oxygen-carbon dioxide balance of our atmosphere.

Opportunities are abundant. The limiting factor is recognition by the people of the state of the many ways in which the wildlands contribute both physically and aesthetically to the quality of life in California. With such understanding and support, the wildlands can also be lands of abundance in yielding their many crops on a permanent basis.