



*Surviving in 'the best of times, the worst of times'...*

## Real problems — real solutions

**HENRY J. VAUX, Jr.**  
Associate Vice President  
Agriculture and Natural Resources

This year the University of California celebrates its 125th anniversary. The President of the University has stated that on this occasion we have never been in better shape yet we have never been in worse shape. On one hand, the University continues to enjoy its reputation as the finest publicly supported institution of higher education in the world. The highly educated workforce which the University has helped to create and the basic and applied research which it has fostered have contributed unquestionably to the development of California's economy into the eighth largest in the world.

Simultaneously, however, the University faces a financial situation that threatens its capacity to sustain and improve upon past achievements. When I graduated from UC Davis in 1962, funds provided by the state of California accounted for 60% of the University's budget. For the fiscal year 1992-93 that figure has declined to 26.5%. What is particularly alarming about the progressive withdrawal of state funds is that it represents core support. Virtually all the other funds we generate — in excess of \$3 billion annually — are earmarked for particular activities. Core funds support essential teaching and research missions around which all other activities are built. This year state support for the University is at the 1987 level despite an increase in enrollments and inflation that totals 40% since that year.

The decline in state support for the University has had a disproportionately large impact on the Division of Agriculture and Natural Resources. At the end of the current fiscal year, reductions in financial support and the effects of inflation will have combined to create a 20% reduction in real support over the past three years.

We recognize that, as bad as our own fiscal circumstances are, many other Californians are confronted with the prospect of funding reductions that could be even more catastrophic. We also recognize that the reduction in public support for our activities may be due as much to the perception that we are losing touch with some important modern realities as it is to the declining availability of public funds.

The University is often perceived as doing too little to help solve the very real problems facing California. We are also seen as doing too little for the people we are charged with educating, including the constituents of Cooperative Extension. What has worked well in the past may not be a recipe for success in the future. The vast majority of Californians now reside in urban areas and their concerns about agriculture and natural resources transcend the historic mandate to learn how to produce a more bountiful supply of food and fiber reliably and at less cost. Today's Californians want us to produce food and fiber without threatening to poison the air and water, and without incurring costly side-effects. The public also asks that we find ways to manage our natural resources which will preserve and enhance: 1) biological diversity, 2) the natural beauty of California, and 3) the amenity values of our natural resources.

In response, we must change our research programs in a number of ways. First, the balance between basic and applied research must be redressed to give somewhat more weight to research applied to pressing state problems. This does not mean that we should abandon basic research altogether. Basic research is essential if we are to solve the problems which will emerge a decade or two hence, just as the solutions to many of today's problems are built on basic research performed in the 1970s and 1980s. It does mean that the University-wide trend of placing ever-greater emphasis on fundamental and basic research must be reversed. It means that researchers who work successfully on applied problems should be supported and rewarded on the same basis as those who work in more basic areas.

Second, we must focus on ways of producing food and fiber that reduce risks to health, to biological diversity, and to the resource base itself. The UC Small Farm Program highlighted in this issue is an example of a grassroots effort that has had spin-off benefits for the environment, the economy, and consumers statewide. However, marshaling support for such efforts is not easy. In the past, one tangible product of agricultural research was more dollars in the grower's pocket. In the future, our task will be less to improve than to maintain productivity and profitability in the face of constraints designed to preserve our natural resources. The payoff from such research will be harder to discern and in some instances will only be apparent if we fail and thereby permit California agriculture to decline. Third, we will need to expand the substance of our research well beyond the traditional agricultural disciplines into areas like conservation biology, aquatic ecology, and atmospheric chemistry. We will also need to involve a broader range of University researchers and not just those with formal affiliations with the Agricultural Experiment Station. In short, we will need to engage more of the University's resources than we have in the past.

At the same time that California's population has become heavily urbanized, it has also grown dramatically and become far more diverse ethnically than in the past. This creates a number of challenges for us as educators. In an environment of limited state financial support it will no longer be possible to provide effective programs of public service and educational outreach by relying primarily on one-to-one contacts between Farm Advisors and growers. We will need to take advantage of modern communication and data handling technologies to reach not only more people but a greater diversity of people.

The Division's ability to survive, and to continue addressing California's diverse needs, depends on its response to these dramatically changed circumstances. The record shows that we have contributed significantly to an agricultural sector which is California's largest industry — the most profitable and diversified agricultural economy in the nation. With diminished but still significant resources, the Division must continue to develop solutions to emerging problems; it is our history, it is our mandate for the future.