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Setting research priorities

Activity in the recently concluded session of the California legislature suggests a growing interest on the part of state lawmakers and the public in more of a role in "helping" the University set research priorities and allocate research dollars. During this session, six bills were introduced to establish state science research and technology councils, or similar entities, to provide greater public oversight and participation in research decisions. Responsibilities of these councils varied from identification of critical public research needs to review of public university research activities and priorities, assessment of the adequacy of state funds, and recommendations for making research more relevant and responsive to state needs.

The three bills eventually adopted were part of a competitive technology package supported by the governor. The principal group formed by the legislature is the California Council on Science and Technology. This agency is charged with identifying the state's long-range research needs in various areas, including agriculture, and assessing technology transfer linkages between the private sector and public universities. The emphasis here will be on looking at ways to restore California's competitive edge in research and development through closer interactions between academic institutions and the private sector in the setting of research priorities and, presumably, in making available adequate support funds.

The Division of Agriculture and Natural Resources supports the California Council on Science and Technology and looks forward to a close working relationship with it. We recognize that our competitive strength in the global market depends on the quality and effectiveness of a carefully planned research, development, and communication system. We also recognize that we have to produce our commodities in an economically sound and environmentally and socially acceptable manner. That alone provides us with a challenge that will demand the cooperative effort of the best minds in the continued quest to match our research and educational priorities with our human, fiscal, and facility resources.

In its recent reorganization, the Division of Agriculture and Natural Resources streamlined the planning and priority-setting of our basic and applied research, developmental, and extension activities. The Division is in a stronger position than ever to interact with the Council, and I am confident that the efficiency of our resource utili-

zation and the effectiveness of our programs will benefit as a result.

I do have a concern, however. It is just as important to review existing programs and make sure there is a process for applying knowledge and technology already available as it is to set priorities for future research.

Current research output of academic institutions in California is enormous. Within the University of California alone, our individual faculty members, our organized research units, and our systemwide research programs produce information at an astonishing rate. I don't mean to imply that this research information will solve all of our problems, but it is valuable and should be used. Of equal importance to the setting of priorities is an awareness by state leaders and private industry of the body of this knowledge and of its potential use. Unless we know what is coming from our present research and development programs, unless we have a systematic way of adapting that information to solve existing problems, setting new priorities will only complicate matters. The result will not be an improvement in California's competitiveness, it will only be the production of additional, possibly redundant information that is still not utilized.

Current agricultural production and environmental policies are rife with inconsistencies. Some encourage exploitation of natural resources; others stress conservation. Environmental policies seek to restrict the use of certain pesticides; agricultural pricing policies may encourage more intensive use. Environmental policy relies heavily on command and control regulations, which may be less efficient than economic regulation in dealing with some environmental problems. Public subsidies encourage profligate use of water in agriculture even when water conservation may be desirable for environmental or economic reasons. Such inconsistent policies affect our overall competitiveness. It is essential that, as a part of any attempt to set research priorities and allocate our resources more efficiently, state and federal policies complement and make use of the scientific knowledge and technology developed through past efforts.

The California Council on Science and Technology may be the first legally constituted body that would have the opportunity to catalog and evaluate existing research-based knowledge as the first step in setting priorities for future work.