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Research Management Decisions

DEMANDS FOR SPECIFIC KINDS of research by growers and industry, and the number of researchable ideas of scientists, are always far in excess of what can be supported by funds available. Choices must be made. Priorities must be established.

How can this be done while sustaining the creativity that comes with the freedom of the individual investigator to develop and pursue his own ideas? Improved research management is a significant part of the answer—aided by the memory banks of modern computers. Necessary elements include forward planning; the development, justification, and support of budget requests; the allocation of available resources; and the evaluation of performance. The key to success is the development of the best possible way to decide *what* to research.

It is necessary to establish priorities among disciplines as well as within disciplines. The process of making decisions among disciplines is especially difficult and requires the best available information and advice for the administrator. Once the distribution of funds among areas has been determined, the individual investigator may make decisions within his own area. However, in the future he will make them after an even more rigorous discussion with other researchers than has been the practice in the past. There need be no conflict between good research management and freedom of inquiry. In fact, their interaction will result in greater possibilities for each.

California has recently joined with other states and with the U.S. Department of Agriculture in a program that seeks to improve research management decisions. As the first step in the program, a classification system was developed with a computerized inventory of research in progress. The Current Research Information System (CRIS) has been devised and automated to keep such information current. The second step was the development of a long-range plan by a joint taskforce of key research administrators from the State Agricultural Experiment Stations and the U.S. Department of Agriculture. The third step was a critical review of this plan by 32 joint SAES-USDA groups of outstanding investigators. Thus there are “challenge-and-

response” mechanisms, both automated and human, to aid and to stimulate communication among research managers and investigators.

Another aid to the decision-making process is the development and application of criteria or standards to guide comparative judgments. Social importance, not just the satisfaction of curiosity, must be the major criterion for choice among research alternatives. And this social importance *may include* such considerations as production and efficiency in agriculture—but not *just* production and efficiency. The future focus in research planning must be on society as a whole, not just on its agricultural sector. The greatest benefits to society must be the goal—not just the greatest economic benefits.

We must do our best to predict what is likely to be of the greatest benefit to society and to structure our efforts, programs, and organizations accordingly. Lest this seem to be an overly broad charter for agricultural research, remember that the major “pay-offs” to date are of this nature. These include more and much higher quality food at reduced, real costs to consumers; findings of great significance to human nutrition and to medical sciences; and advances in knowledge in the numerous scientific areas involved in agricultural research. With investigators of improved competence and with improved research methodology, still further findings of great significance may be anticipated despite the fact that the “easy” research has been done already.

A major focus for research programming in the immediate future is improvement in “quality of life.” Research should be helpful in developing policies and programs and in identifying economic incentives that would help solve problems of population control and dispersal; that would help improve incomes and nutrition, that would aid in human and community development, use and conservation of resources, improving environmental quality, and in the use of public investments.

We should be able, now, to move in the direction of better use of research resources. Information and machinery are at hand to facilitate the planning and action required. Let’s get on with it.