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Experiment station drift

One of the characteristics of U.S. agriculture that seems almost a constant is over-correction when trying to adjust production to marketing opportunities. There are many explanations for the gyrations we experience, most of them related to the vagaries of weather and to the inherent variabilities of biological processes involved in the growth and reproduction of plants and animals.

Whatever the reasons, the ability of agriculture to make mid-course adjustments in order to achieve a desirable balance between production and demand is not highly developed. Nevertheless, the people engaged in agricultural production must continue to try to reduce or eliminate as many of the uncontrolled variables as they can to dampen the amplitude of potential production-marketing disharmonies. One means of doing so is through research and education.

Through research, we hope to learn more about the factors involved in production and marketing variables and, as a consequence of increased knowledge, to modify or control the influence those variables have on the agricultural system. The more we learn about basic biology, biochemistry, biophysics, physics, mathematics, and statistics, the more probable it seems that we will ultimately be able to devise plants and animals that can resist the adverse effects of insects, diseases, drought, and other stresses.

Biotechnology is the term currently used to describe research aimed at incorporating new technologies into biological processes. The exciting possibilities of this new field are rejuvenating many of our agricultural research programs. The faculties of agricultural research institutions are being staffed with new scientists and specialists trained in the fundamentals of the life and physical sciences. The establishment of centers to conduct biotechnological research is seen as the surest way to secure funding support from public appropriations.

This movement is to be applauded. It is responsive to the findings of numerous studies of agricultural research during the past 10 to 15 years and recommendations that agricultural experiment stations place more emphasis on basic research. I have been among those recommending such a course, and I believe it to be sound.

It may now be appropriate to issue a word of caution, however. I detect an experiment station drift. Moving our

scientists more completely into biotechnology research centers without providing adequate bridges to translate and transform basic discoveries into practical uses may create a widening gap between academe and the practicing agriculturist.

What follows is inevitable. Questions will be raised concerning the usefulness of research by these biotechnology centers. Promises of practical results, if unfulfilled, could become embarrassing bruises to credibility. Public support will be withdrawn from these programs if they are perceived to be unproductive, making it necessary for research institutions to retrench and redirect their efforts.

As has often been demonstrated, making mid-course adjustments in agricultural research may be even more difficult than changing the course of agricultural production.

We won't need to make such adjustments if we recognize the drift early enough. We need to support our basic science programs fully, but not at the expense of our efforts to assemble these basic truths for practical use. We have to be certain that from the test tube to the test plot and from the computer to the consumer we have a continuum of highly skilled people engaged in their respective professions.

The attraction that new frontiers of research hold is understandable and commendable. But those of us involved in allocating resources must be vigilant and not allow the drift to get out of hand. Faculties, too, bear responsibility, because they must recognize the value of all parts of the spectrum, from discovery to application. This is especially true of agricultural experiment stations, whose mission is clearly enunciated in the Hatch Act.

Drift implies uncontrolled movement; changing directions implies controlled movement. We cannot tolerate drift. We have to remain in control and plan our moves to serve the needs of agriculture and its consumers in the most mutually beneficial way.