## A Consultant Looks at the Agricultural Experiment Station System

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In accepting the assignment of writing about the agricultural experiment station system in the United States, I am assuming that a constructive evaluation by a private consultant working on the system's periphery is wanted rather than an essay restricted to plaudits. That the research and extension setup in the United States undoubtedly serves as a model for many developing countries is not surprising in view of the probability that a significant portion of the productive capacity of this country can be attributed to

the coordinated efforts of these services. Foreboding storm clouds are gathering on the horizon, however, with skyrocketing production costs accompanied more often than not by an erratic market.

With the grower's margin of profit on the decline, one might wonder if our productive capacity has plateaued. Hopefully, only the pessimist thinks so. I, personally, have often speculated about the production levels that could be attained if every plant producer implemented all the technology available to him. One thing appears quite evident: Food shortages worldwide would melt away. This statement, however valid, suggests a serious void between research findings and their implementation. Furthermore, it might imply that problems of underproduction are due solely to failure of the agricultural advisor, private or public, to do his job. Admittedly, there is much room for improvement in that arena. Important questions might be: "Does the lag in implementation exonerate the research man? Is there no need for improvement in his program?" I am confident the researcher would be the first to negate such an assumption.

In what areas could the experiment station look for improvement? One might start with selection of the research project. How many projects—completed or abandoned or with inconclusive or meaningless results—are gathering dust in the dead file and will, in all likelihood, never see the light of day? Surely part of that dilemma, when it exists, reflects poor judgment in the selecting process.

Another problem that appears increasingly acute concerns the ills associated with bigness. When visiting a campus, one is duly impressed with the rows of neat offices, the shining apparatus, and the lab-coated technicians on display. Sometimes, relating this scene to the cotton patch is a bit difficult! Perhaps it would be helpful to be reminded occasionally that the only valid excuse for the existence of the agricultural sciences, even plant pathology, is to improve production. In spite of all modern technology, crops are still produced in the field and problems of production originate in the field. These problems must also be discovered in the field,

and inspirations for their resolution surely must reside, however untapped, in the same environment. One might ask, "Does today's researcher spend an equitable portion of his time in the field?" I am convinced that observing problems in their functional setting is the best way to evaluate their relative importance and to find the clues regarding their resolution.

Unfortunately, smallness, in itself, does not automatically obviate all the implied ills associated with bigness. One need only look to the substation for verification. That system, employed successfully in many states, rebuts some of the criticism of bigness but creates others. A serious one concerns the practice of placing the young Ph.D., with all his fired-up ideals and motivations, out in the "boonies," usually almost completely on his own. This person's experience is necessarily limited, and his expertise with the crop(s) involved may be even less. His shiny new union card may not qualify him to cope with all the problems that arise. Regardless of intent, a goodly portion of his time will be spent in extension work, where experience is mandatory. Many states have taken an important step into realism by candidly acknowledging that the position is basically one of extension; not only does the person selected have the technical background and experience to perform grower service, but the position is subsidized by the cooperative extension service.

Finally, I suspect that some personnel fail to appreciate the power and authority with which the experiment station cloaks them. Consequently, some of their statements may not be as carefully thought through as they should be. This situation can become serious when one is prone to self-aggrandizement or overzealousness or condescension. A bit of humility, along with the realization that a title before a name does not connote infallibility, can enhance rather than detract from one's image. Perhaps it would behoove us all to be reminded occasionally that today's grower is a hard-nosed businessman quite capable of thinking for himself.

Criticisms are more likely to be meaningful when accompanied by suggestions for improvement. Here are mine:

First, I am confident that research projects would profit if extension personnel, private consultants, commercial representatives, and growers were consulted more often regarding field problems.

Second, greater emphasis—prestige, if you will—could be given field research, particularly at the graduate level.

Third, greater caution in placing a young man fresh out of graduate school all alone at the substation would be desirable.

Fourth, greater discretion might be exercised in making specific recommendations, with particular emphasis on how the innovation fits into the overall production scheme. It might be helpful to realize that the research worker may not be in a position to make the final judgment. One of my personal ambitions is to witness experiment station personnel, the cooperative extension service, commercial representatives, and private consultants coordinating their efforts to elevate crop production to its maximum level of efficiency. I believe this goal can be realized without sacrifice of prestige or principles by any segment of the team.