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Crop Agronomy

Joshua L. Posner

International Agricultural Programs
University of Wisconsin-Madison

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GAMBIA ORIENTATION VISIT

3/23/86 - 4/01/86

J. L. Posner

During my "orientation" visit to The Gambia I spent my entire time in the ARAB (Agricultural Research Advisory Board) meetings and with the Cultural Agronomy/Farming Systems sub-committee. During this period, we rapidly reviewed the results of the Upland Crops, Rice, Maize, Forages, Cultural Agronomy, Soil Fertility, Horticulture and Weed Control (Integrated Pest Management) Programs. The amount of work that had been done in preparation for these meetings was impressive. Several reports were quite complete while others included only preliminary analysis.

I would expect that at some point later in 1986, more complete reports on the 1985 campaign would be required of certain programs. An alternative would be the writing of pluriannual summary reports by research theme (e.g., Upland Rice Varietal Selection Program 1980-1985 or Preliminary Results of the Corn Management-Groundnut Rotation Study (SAFGRAD). Such an exercise would help senior researchers and collaborators to see the evolution of their trials results and permit a re-evaluation of their hypotheses. A report of this nature could be published in a Departmental Working Paper Series.

Several programs did not present papers at the ARAB meetings. It seems to me imperative that the farm machinery team, the PPMU (Project Planning and Monitoring Unit), and Soil and Water Management Units be requested to inform

the Board of their 1985 results and plans for 1986. Unquestionably, an important theme for the next few years will be improving coordination between research teams within the Ministry of Agriculture.

The final product of our deliberations was a tentative list of experiments--on-station, at District Extension Centers (Multilocation) and on-farm--developed by each of three subcommittees (Rice, Upland Crops, Cultural Agronomy/Farming Systems). I have two reservations concerning the list:

1) There are too many experiments

It appears that all long-term trials are to be continued (Cultural Agronomy and Soil Fertility), in addition to all upland crop improvement and rice variety trials. An expanded program in intercropping is also envisioned. Thus, very little paring down has occurred, indicative that not enough effort has been made to prioritize research themes. In this regard it is my personal feeling that the rice program should concentrate on the rainfed lowland areas rather than on the drought-prone uplands or salt-intrusion susceptible mangrove swamp. Furthermore, I am concerned that the mixed cropping experiments are too complex and require a level of monitoring impossible to achieve at the numerous DEC (District Extension Centers) and even less so on farmers' fields. It seems to me that if these experiments are undertaken without a backlog of on-station experience to begin with, there will be as many different results as experiments placed.

2) The rationale for going "off-station" is unclear

There seems to be some confusion as to the role of research in participating in off-station experiments. For multilocal experiments

(^EC) to be useful, some description of the site is necessary (soil, rainfall, pest pressure) so that the results can be interpreted. By the same token, going on-farm for researchers becomes especially useful if the farmers' level of technology is a variable to be studied. Obviously, for it to be fed into the analysis, it must be measured--a time-consuming and difficult task. At the moment, it appears however that the considerable "off-station" research component has as its primary goal the demonstration of improved technology to farmers. Since agents are "graded" on the results, the improved package of practices is obligatory and little else but yield is analyzed--the conclusions the researchers can draw from this exercise have to be limited.

I would suggest that a careful selection of a limited number of sites and an effort to characterize specific features of each site would be a first step for some trials (variety trials). In other cases, more numerous on-farm trials need to be conducted but employing farmers' cultural practices. The close cooperation between extension and research is an important asset, but should not have the effect of tempting researchers to substitute the number of experiments for the quality of measurements taken.

During the meetings, it also became clear that Board members view cropping systems research as the study of farmers' attitudes toward an appreciation of new technology. This focused approach, in general adopted by the International Centers, has its advantages and disadvantages. Nevertheless, for a National Research Program, I feel this outlook is somewhat short-sited. Some considerable effort should be made by the research service to understand farmers' strategies and the general evolution of traditional farming practices when confronted with drought, dwindling labor force, shortened rotations and the "availability" of credit and modern inputs. Throughout the meetings

researchers asked important questions of the extension service concerning how farmers farm*. We should begin to answer these questions scientifically.

One interesting aspect of the meetings from my perspective was the commonality of interests between Gambian and Senegalese researchers. It would be very fruitful for Gambian researchers to travel to Senegal (and vice versa) during the period of July-December 1986. The attached table indicates a provisional list of the most obvious points for collaboration.

This exchange could be brought about if the Gambian Ministry of Agriculture sent a letter to the Senegalese Ministry of Rural Development, suggesting several visits. Specific names should be included in the letter, in order for M. Sagna to release the Senegalese researchers from their obligations to get ministerial permission.

I found this first contact with the Gambian researchers very interesting and am looking forward to my future association with them. I hope to make a second visit during May in an effort to participate in site selection for the on-farm trials and training of the extension agents.

* How long are typical fallow periods?

How much manure is added to corn plots? Rice fields?

How important is rainfed rice? Mangrove rice?

The new maize hectarage is at the expense of what crop?