Overview of the Sorghum/Millet CRSP and Objectives of the Workshop

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Sorghum and millet rank fourth in world food grain production following wheat, rice, and maize. They are especially significant sources of human food in South Asia, much of sub-saharan Africa, and certain regions of Latin America and the Caribbean. In Africa alone, sorghum and millet are produced on 31,770,000 hectares. Together, these two crops constitute the "last resort" of crop production where the natural stress conditions of drought and heat predominate. Since much of the sorghum/millet is grown under stressful environmental conditions in the arid, semi-arid, tropical and sub-tropical regions of the world, yields are relatively low. Thus sorghum and millet, typically subsistence crops, are most important to the survival of low-income, low resource farmers. Because of this, these crops are not only important for nutritional and economic reasons but also because of cultural, political, and anthropological aspects in the lives of many millions of people.

INTSORMIL'S OBJECTIVES

The purpose of the sorghum/millet CRSP is to organize and mobilize financial and human resources necessary for mounting a major, multi-institutional US-host country collaborative effort which in turn provides the knowledge base necessary to achieve significant advances in alleviating the principal constraints to improved production, marketing, and utilization of sorghum and pearl millet. A second purpose is to improve the capabilities of host country institutions to generate, adapt, and apply improved knowledge to local conditions.

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THE SORGHUM/MILLET CRSP, INTSORMIL

INTSORMIL is a collaborative research program where United States scientists work jointly with scientists of other nations to improve sorghum and millet production and utilization. Land grant universities participating include: Kansas State University, University of Kentucky, Mississippi State University, University of Nebraska, Purdue University and Texas A&M University.

INTSORMIL collaborative efforts include host countries, International Research Centers (IARCs) and the Agency for International Development (AID). Cooperating prime site and collaborating host countries include Mali, Senegal, Kenya, Sudan, Botswana, CIAT/South America, Niger and Honduras. India has high priority as a potential prime site. The program thrust includes basic and applied research, the training of scientists, the exchange of information and germplasm and research institution strengthening.

The INTSORMIL research program is comprehensive. It includes research projects in agronomy and cultural practices, physiology, sorghum/millet breeding, entomology, plant pathology, food quality and utilization, and socio-economics. Teams of project scientists include United States scientists, host country scientists and their students. The training of United States and host country scientists and students receives high priority as one way to strengthen sorghum research institutions.

INTSORMIL scientists cooperate in a world-wide exchange of sorghum seed selected from improved plants and the distribution of research information. The development of new varieties is speeded up since field trials are grown the year around where there are warm climatic conditions. INTSORMIL also supports research workshops where United States and host country scientists exchange information and plan research programs. Examples include workshops on sorghum diseases, weed control, sorghum insects, sorghum breeding, farming systems and sorghum food quality and utilization.

COLLABORATION: HOST COUNTRY AND U.S., AMONG UNIVERSITIES AND AMONG DISCIPLINES

"Collaborative Research Support" is the term given to programs, such as the Sorghum/Millet CRSP, which are jointly sponsored by BIFAD/AID and the U.S. university community. This research is jointly supported by AID and participating U. S. institutions. This program is a long term effort designed to bring together the research capabilities of participating universities, appropriate host country institutions and international agricultural research centers (IARCs) into a comprehensive and coordinated effort in research and training, to generate and apply knowledge that can assist in alleviating principal constraints to improved production, marketing and the utilization of sorghum and millet. It is based on the assumption that there are large areas of overlap between U.S. and developing country needs for research, marketing, and utilization of these two crops. Substantial mutual advantages are expected to result from joint research program efforts which cut across national boundaries and different levels of agricultural development. Within the program, collaboration is encouraged within and between disciplines. The objective is to have a multidisciplinary program with the different disciplines working together at prime host country sites.

The Sorghum/Millet CRSP defines collaborative activities as follows:

> Joint program planning, joint implementation of research and joint publication of research results.
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> Joint planning and implementation of workshops and other networking activities.
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> Staff Networking--host country collaborating scientists visit U.S. research sites and U.S. collaborating scientists visit host country sites.
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> Collaborating scientists exchange students and research materials and advise graduate students. They exchange germplasm and information as appropriate.

INTSORMIL funds provide in-country support for on site research.

Close collaboration is evidenced with other scientists including interdisciplinary collaboration.

It is an asset if the U.S. principal investigator knows or is in process of developing competency in host country language(s).

OBJECTIVES OF THE WORKSHOP

The objectives of this workshop are to report on the collaborative research activities of INTSORMIL scientists (U.S. and Host Country) and collaborating ICRISAT scientists. The reports on the basic and applied research that we hear during this meeting will be evidence of a functioning research network on sorghum in Central America. This work is evidence of adequate joint program planning and joint program implementation of research. The publication of the proceedings of this workshop will demonstrate the significant sorghum research activities in this region.

Thank you.