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 CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) - PART I

Report Symbol U-447

1. PROJECT TITLE Sorghum Pest Resistance - Texas A & M University			2. PROJECT NUMBER 931-0578.44	3. MISSION/AID/W OFFICE DS/AGR/FCP
4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>80-34</u> 3/12/80			<input checked="" type="checkbox"/> Terminal Eval. <input type="checkbox"/> SPECIAL EVALUATION	
5. KEY PROJECT IMPLEMENTATION DATES		6. ESTIMATED PROJECT FUNDING		7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent FY <u>74</u>	B. Final Obligation Expected FY <u>80</u>	C. Final Input Delivery FY <u>80</u>	A. Total \$ <u>1,105,000</u>	From (month/yr.) <u>September 1978</u>
			B. U.S. \$ <u>1,105,000</u>	To (month/yr.) <u>February 1980</u>
Date of Evaluation Review <u>March 5, 1980</u>				

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
This is a terminal evaluation of the contract with Texas A & m University, completed in February 1980 and no further action is required. The research activities formerly conducted under the contract are now funded from the CRSP-GS/PM	N/A	N/ A

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS			10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT	
<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____	A. <input type="checkbox"/> Continue Project Without Change	
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____	B. <input type="checkbox"/> Change Project Design and/or	
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____	<input type="checkbox"/> Change Implementation Plan	
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____	C. <input checked="" type="checkbox"/> Discontinue Project	
11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)			12. Mission/AID/W Office Director Approval	
DS/AGR/FCP, R.I. Jackson <u>R.I.</u> Date: <u>3/10/80</u> (Project Manager)			Signature: <u>Keith M. Byergo</u>	
DS/AGR, M. Mozynski <u>MEM</u> Date: <u>3/10/80</u>			Typed Name: <u>Keith M. Byergo</u> Act. Dep. <u>Dir. DS/AGR</u>	
			Date: <u>3/12/80</u>	

13. **Summary:** Pests and diseases reduce yields and lower quality of tremendous quantities of grain sorghum throughout the world each year. Sources of resistance to most of the major sorghum diseases, insect and anthropod pests have been identified through national and international testing programs. Included have been head smut, downy mildew, maize dwarf mosaic, anthracnose, root and stalk rots, grain mold or seed weathering, several foliar diseases, sorghum midge, greenbug, corn leaf aphid and grass mites.

Elite sources of germplasm which have been generated under the project from introduced, converted and partially converted exotic sorghums have been distributed to sorghum workers throughout the world. Disease and insect resistant, dwarf height, photoperiod insensitive sorghums have been combined in random populations for easy distribution to sorghum improvement programs in LDCs. Development of greenbug resistant hybrids, the discovery of high levels of midge resistance and possible resistance to spider mites are new major breakthroughs in sorghum improvement. Some of these disease and insect resistant sorghums have extraordinary general adaptation. During the past year several lines and hybrids possessing tropical adaptation have been grown in Africa and South America. The potential for these types of sorghums is excellent.

14. **Evaluation Methodology:** This is a terminal evaluation of this project. The research funded under this project will be continued and funded from the CRSP-GS/PM grant

15. **External Factors:** N/A

16. **Inputs:** N/A

17. During the life of the project, over 170 technical papers have been prepared and published on sorghum and sorghum improvement. These papers covered a wide range of topics on sorghum improvement, in general host resistance, cereal chemistry, physiology and basic genetics.

Germplasm developed under the project has been evaluated as hybrids in a number of adaptation trials in different areas of the world. Without exception, superior combinations of the tropically adapted sorghums from the Texas program have been widely accepted as superior materials for the tropical semitropical regions.

18. **Purpose:** To make available to LDCs high quality yielding nutritious varieties of sorghum with multiple resistance to moisture and temperature stresses, diseases and insects, together with improved practices for their cultivation.

19. **Goal:** To increase quantity and nutritional value of food crops in developing countries.

20. Beneficiaries: The contract has been part of an overall AID effort to make improved sorghum varieties available to farmers in the LDCs. The Texas A&M research component has been especially concerned with the collection, breeding and identification of sorghum cultivars with demonstrated resistance to the most common disease and insect attacks. This work has dovetailed with other AID supported research for developing and distributing more reliable sorghum lines for use in LDCs.

21. Unplanned Effects: N/A

22. Lessons Learned: N/A

23. Special Comments: The research undertaken under this contract is being continued at Texas A & M under the CRSP-GS/PM