PD-AAF-402-B1 931061(2)

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1. TRANSACTION CODE: A (A = ADD, C = CHANGE, D = DELETE)

PP

2. DOCUMENT CODE: 3

3. COUNTRY/ENTITY: TA/AGR RDA-4
Type a. Research

4. DOCUMENT REVISION NUMBER: 1

3p

5. PROJECT NUMBER (7 digits): 931-0613

6. BUREAU/OFFICE: A. SYMBOL: TAB; B. CODE: 08

7. PROJECT TITLE (Maximum 40 characters): N-Fixation Symbiotic-Hawaii

8. ESTIMATED FY OF PROJECT COMPLETION: FY 78

9. ESTIMATED DATE OF OBLIGATION (For additional Funds only)
A. INITIAL FY: - -
B. QUARTER: 4 (Enter 1, 2, 3, or 4)
C. FINAL FY: 77

10. ESTIMATED COSTS ($000 OR EQUIVALENT $1 - (For additional Funds only)

A. FUNDING SOURCE	FIRST FY 77			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. [illegible]	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	76	---	76	76	----	76
(GRANT)	(76)	(---)	(76)	(76)	(---)	(76
(LOAN)	(---)	(---)	(---)	(---)	(---)	(---
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY						
OTHER DONOR(S)						
TOTALS	76	76	76	76	---	76

11. PROPOSED BUDGET APPROPRIATED FUNDS ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 75		H. 2ND FY 76		K. 3RD FY TQ	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	141 I	953	---	491	---	---	---	392	---
(2)									
(3)									
(4)									
TOTALS				491	---	---	---	392	---

A. APPROPRIATION	N. 4TH FY 77		O. 5TH FY 78		LIFE OF PROJECT	
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN
(1) FN	76	---	---	---	959	---
(2)						
(3)						
(4)						
TOTALS	76	---	---	---	959	---

12. IN-DEPTH EVALUATION SCHEDULE: MM 08 YY 77

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

1 (1 = NO, 2 = YES)

14. ORIGINATING OFFICE CLEARANCE

SIGNATURE: Leon F. Hesser, Guy B. Baird, Jr

TITLE: Director, Office of Agriculture

DATE SIGNED: MM DD YY

15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM DD YY

AID 1330-6 (3-76)

FILE

SUMMARY OF RAC RECOMMENDATIONS TO A.I.D.

PROPOSALS REVIEWED AT THE OCTOBER 17-18, 1974 MEETING

1. **Program for Applied Research on Fertility Regulation (PARFR) (Extension)- Northwestern University. Duration of extension 3 years; estimated additional cost, $2,052,549. Connell, Carter, Linder, Merrill. 1/**

   Recommendation: That the proposed extension be approved with the following amendments: (1) removal of the Family Planning Demonstration Center, (2) more active recruitment among foreign students currently in this country as potential grantees upon their return to their home countries, and (3) A.I.D. staff make every effort to lower the percentage of funding going into administration.

2. Nitrogen Fixation by Legumes as a Major Factor for Food Production in Less Developed Countries (New)-University of Hawaii. Duration: 3 years; total estimated cost $900,000. M. Peterson, Heady, Milner, Whitney.

   Recommendation: That the project be approved with recommendation that the AID staff negotiate further relative to the following matters: (1) greater input of time of the principal staff; (2) greater participation of scientists from developing countries including financing, if necessary; (3) narrowing initial objectives to those which can be achieved during the initial life (3 years) of the project, namely, to food legumes and oil crops; (4) greater attention to the interaction of this project to cropping systems in developing countries; (5) budget reduction for the initial 3-year program; and (6) that the RAC Subcommittee be advised of the plan of action with reference to the sequence of research activities and an explanation of how this will be expanded to the field activities.

3. Adapting Simulation Models to Agricultural Sector Analysis (Extension)-Michigan State University. Duration of extension: 18 months; estimated additional cost, $697,753. Heady, Ruttan, Hagen, Wittnebert.

   Recommendation: That the proposed extension be approved as a terminal contract under the conditions that: (1) by March 1, 1975 the MSU team provide AID with documentation of important policy and developmental alternatives for Korea, and agreed upon with Korean officials, to be simulated in the remainder of the project; (2) the model emphasize major economic relationships and subsectors which can be quantified and analyzed for

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1/ RAC Review Subcommittee, Chairman underscored

Dr. Milner agrees with the situation review. He urged that AID staff consider scheduling a technical review meeting in the near future of the nitrogen fixation field, both practical and theoretical. This is one of the stellar fields of research in the future of agriculture.

Dr. Whitney agrees that the objectives are narrowed somewhat so that they can come closer to completion. The reference to legumes as a source of nitrogen in crop rotation is still somewhat fuzzy. The experimental design to check this out will need close monitoring. The status report is quite satisfactory.

Dr. Hesser, TA/AGR, stated that AID has commissioned Dr. Llyod Frederick of Iowa State University, who is one of the top microbiologists in the country, to do a study of the state of the art in this area. It is possible that this report may be ready in time for a presentation to the RAC in the near future.

Dr. M. Peterson, in response to Dr. Milner's comment, stated that a great deal of research had gone into nitrogen fixation years ago. After a point of diminishing returns, there has recently been an upsurge as a result of new knowledge about the genetics of micro-organisms. A group at the University of California is attempting to induce mutations to offset a repressor gene which shuts off the system after a certain amount of nitrogen has been fixed. There may be a possibility that the system could go on at a much higher rate. This is very sophisticated genetics and biochemical work.