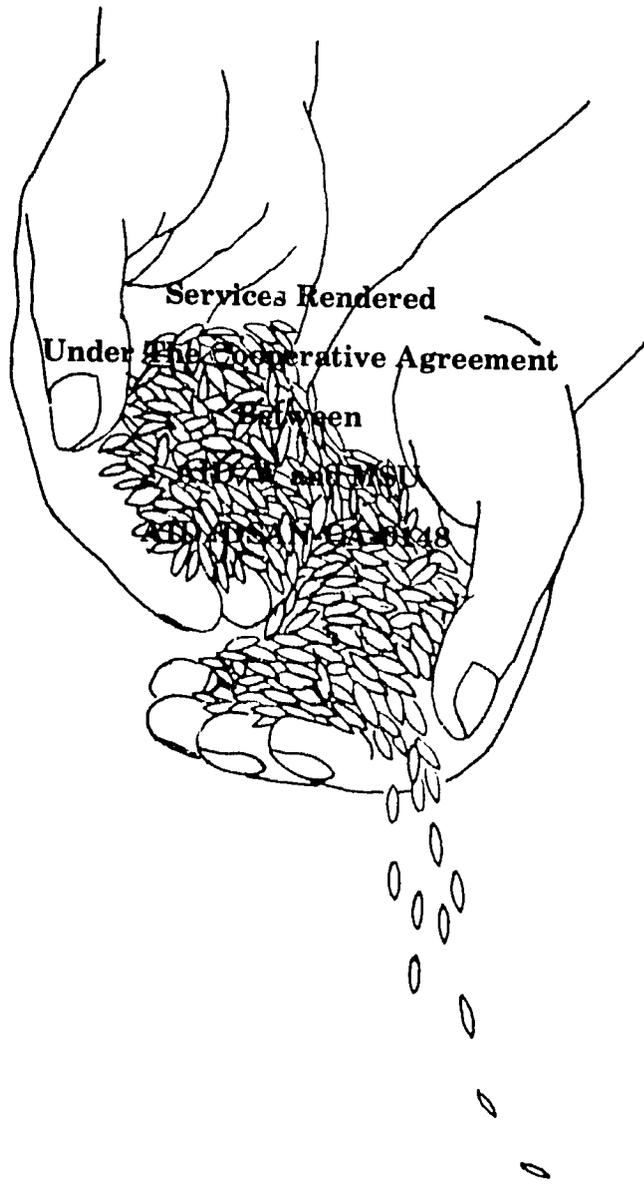


REPORT TO:
AID/W and
USAID/Thailand

ISN: 35942
TA 81-03

REPORT TO AID/W and USAID/THAILAND
ON TETRAZOLIUM EVALUATION TRAINING COURSE
FOR THAILAND SEED WORKERS



SEED TECHNOLOGY LABORATORY
MISSISSIPPI STATE UNIVERSITY
MISSISSIPPI STATE, MISSISSIPPI

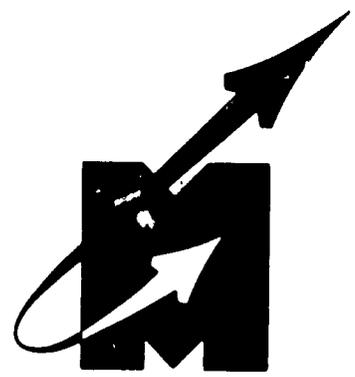


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ACKNOWLEDGEMENT

I wish to take this opportunity to express my appreciation to all those in Thailand whose cooperation contributed to the success of the course. Mr. Petcharat Wannapee, Director of the Seed Division of DOAE, and Dr. Pranom Saisawat, Quality Control Director were most helpful in organization of general support for the sessions. Mr. Sopit Sayasri served as interpreter for the course and did an outstanding job. The enthusiastic assistance of the professional and sub-professional staff was most gratifying.

Thanks are also due to Dr. Bill R. Gregg and Mr. George M. Dougherty of the Mississippi State University Contract in Thailand. Their assistance with many administrative details was greatly appreciated as was their splendid hospitality.

Charles E. Vaughan

TITLE: Report to AID/W and USAID/Thailand on Tetrazolium
Evaluation Training Course for Thailand Seed Workers.

CONTRACT: MSU/USAID

CONTRACTOR: Mississippi State University
Seed Technology Laboratory

CONSULTANT: Charles E. Vaughan, Agronomist
Seed Technology Laboratory
Mississippi State University

TIME: 14 February - 13 March, 1981

1. INTRODUCTION

Various staff members of the Seed Technology Laboratory, Mississippi State University (MSU/STL) have visited Thailand to assist in development of a seed program. In addition, Dr. Bill R. Gregg and Mr. George M. Dougherty have been in Thailand for four years. Much of their activity has centered around the development of five seed centers within the country. They felt that the time was right for placing emphasis on seed quality since Thailand had already acquired the capability of supplying the quantity of seed needed. In response to their request the above named consultant assisted in planning the course and arrived in Thailand

on 16 February 1981 to provide the instruction.

2. ATTACHMENTS - SPECIAL INFORMATION

Schedule of instruction and list of participants are included as attachments.

3. EVALUATION OF COURSE CONTENT AND STUDENTS

The level of education of the students was high. Most had been trained to the B. S. level at the agricultural universities in Thailand. Several had been trained to the M. S. level either in the United States, Australia or New Zealand.

The instruction was given at the equivalent of U. S. university undergraduate level. This proved to be the proper approach as the students made good progress and remained interested and alert throughout the course.

TETRAZOLIUM EVALUATION TRAINING COURSE
FOR
THAILAND SEED WORKERS

February 14 - March 13, 1981

Conducted by: Mississippi State University, Seed Technology Laboratory

Mississippi State University participation funded through
MSU/USAID centrally funded cooperative agreement.

Daily schedules for the course was as follows:

AM	8:30 - 10:00	
	10:00 - 10:30	Break
	10:30 - 12:00	
PM	1:30 - 3:00	
	3:00 - 3:30	Break
	3:30 - 5:00	

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Saturday, February 21

9:30 - 10:00	Opening Ceremony
10:00 - 10:30	Break
10:30 - 12:00	Introduction to Quality Control - Evaluation
12:00 - 1:30	Lunch
1:30 - 3:00	Prepare Germination Tests for - Comparison with Tetrazolium
3:00 - 3:30	Break
3:30 - 5:00	Continuation of Preparation of Germination Tests

Sunday, February 22

8:30 - 5:00	Discussion I
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Monday, February 23

8:30 - 10:00	Mechanism of Tetrazolium Test
10:00 - 10:30	Break
10:30 - 12:00	Materials and Equipment Necessary - for Tetrazolium Testing
12:00 - 1:30	Lunch
1:30 - 3:00	Preparing the Seeds
3:00 - 3:30	Break
3:30 - 5:00	Prepare Samples (Corn, Sorghum, Soybean and Mungbean)

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Tuesday, February 24

8:30 - 10:00	Prepare Samples for Staining (Corn, Sorghum, Soybean and Mungbean)
10:00 - 10:30	Break
10:30 - 12:00	Discussion of Seed Structure
12:00 - 1:30	Lunch
1:30 - 3:00	Interpretation of Corn and Sorghum
3:00 - 3:30	Break
3:30 - 5:00	Interpretation of Soybean and Mungbean Prepare Samples Rice, Cotton and Peanut

Wednesday, February 25

8:30 - 10:00	Prepare Samples for Staining (Cotton, Peanuts, and Rice)
10:00 - 10:30	Break
10:30 - 12:00	Continue Preparing Samples
12:00 - 1:30	Lunch
1:30 - 3:00	Interpretation of Cotton and Peanuts
3:00 - 3:30	Break
3:30 - 5:00	Interpretation of Rice Prepare Corn and Sorghum

Thursday, February 26

8:30 - 10:00	Prepare Corn and Sorghum for Staining
10:00 - 10:30	Break
10:30 - 12:00	Mechanical Damage Analysis
12:00 - 1:30	Lunch

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Thursday, February 26 (continued)

1:30 - 3:00	Interpretation of Corn lots and Compare results with Germination
3:00 - 3:30	Break
3:00 - 5:00	Interpretation of Sorghum lots and Compare results with Germination Tests. Prepare Soybeans, Cotton and Mung beans.

Friday, February 27

8:30 - 10:00	Prepare Soybeans, Cotton and Mungbeans for Staining
10:00 - 10:30	Break
10:30 - 12:00	Other Vigor Tests
12:00 - 1:30	Lunch
1:30 - 3:00	Interpretation of Soybean and Mungbean lots and Compare results with Germination results
3:00 - 3:30	Break
3:30 - 5:00	Interpretation of Cotton seed lots and Comparison with germination Tests. Prepare Peanut Samples.

Saturday, February 28

8:30 - 5:00	Discussion II
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Sunday, March 1

8:30 - 5:00	Discussion III
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Monday, March 2

8:30 - 10:00	Prepare Peanut Samples for Staining
10:00 - 10:30	Break
10:30 - 12:00	Deterioration of Seed
12:00 - 1:30	Lunch
1:30 - 3:00	Interpretation of Peanut Samples and Comparison with Germination Tests
3:00 - 3:30	Break
3:30 - 5:00	Further Discussions on Other Vigor Tests. Prepare Rice Samples

Tuesday, March 3

8:30 - 10:00	Prepare Rice Samples for Staining
10:00 - 10:30	Break
10:30 - 12:00	Quality Control Techniques
12:00 - 1:30	Lunch
1:30 - 3:00	Interpretation of Rice Samples and Compare with Germination Tests
3:00 - 3:30	Break
3:30 - 5:00	Questions and Discussion

Wednesday, March 4

8:30 - 9:30	Written Examination
9:30 - 10:00	Break
10:00 - 11:00	Closing Ceremony

Following the formal training program the following itinerary was followed so that many of the participants could be visited in the various Seed Centers for individual consultation in their own environment.

Wednesday (PM) - March 4 -	Travel to Chainat.
Thursday - March 5 -	Participate in the dedication of the Chainat Seed Center.
Friday - March 6 -	Travel to the Lopburi Seed Center. Visit with Quality Control personnel at the center.
Saturday - March 7 -	Travel to the Lampang Seed Center. Visit with Quality Control personnel at the center.
Sunday - March 8 -	Travel to Chiangmai. Visited the Seed Testing Laboratory at the Northern Region Agricultural Development Center.
Monday - March 9 -	Visited the Chiangmai Sub-Station of the Lampang Seed Center. Travel to Phitsanulok
Tuesday - March 10 -	Travel to Korat. Visited with Quality Control personnel at the center.
Wednesday - March 11 -	Travel to Bangkok. Visited the Seed Technology Laboratory, Field Crop Division, Department of Agriculture.
Thursday - March 12 -	Consulted with personnel of the Quality Control Division of DOAE in Bangkok.
Friday - March 13 -	Departed Thailand for U. S.

PARTICIPANTS

	NAME	MAILING ADDRESS
1.	Mrs. Sompit Mairaing	Quality Control Section, Seed Division Dept. of Agricultural Extension, Bkk. 9
2.	Mrs. Duangtip Premjitt	Seed Technology Laboratory Fieldcrop Division Dept. of Agriculture, Bkk. 9
3.	Miss Savittrie Na Nagara	Seed Marketing & Promotion Section Seed Division Dept. of Agricultural Extension, Bkk. 9
4.	Mr. Nipon Tiamhong	Quality Control Section, Seed Division Dept. of Agriculture Extension, Bkk. 9
5.	Mrs. Malee Laongsri	Northern Region Agricultural Development Centre P. O. Box 101 - 2, Chiangmai
6.	Mr. Wirat Pianvithaya	Quality Control Section, Seed Center No. 1 Pitsanuloke
7.	Miss Nong Kompirapawong	Quality Control Section, Seed Center No. 1 Pitsanuloke
8.	Mr. Samrun Pingtavongkul	Quality Control Section, Seed Center No. 1 Pitsanuloke
9.	Mrs. Kulaya Earkarnna	Quality Control Section, Seed Center No. 2 Nakorn-Ratchasima
10.	Miss Utaiwon Pulsawad	Quality Control Section, Seed Center No. 2 Nakorn-Ratchasima
11.	Mr. Perrayot Promgenta	Quality Control Section, Seed Center No. 3 Lumpang
12.	Mr. Somsak Kokunt	Quality Control Section, Seed Center No. 3 Lumpang
13.	Mr. Somrit Chomchalad	Quality Control Section, Seed Center No. 4 Chainat

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| 14. Mr. Thamasak Poosupa | Processing Control Section, Seed Center No. 4
Chainat |
| 15. Mr. Decha Glintes | Quality Control Section, Seed Center No. 5
Lopburi |
| 16. Mr. Sommai Jiapraditkul | Quality Control Section, Seed Center No. 5
Lopburi |