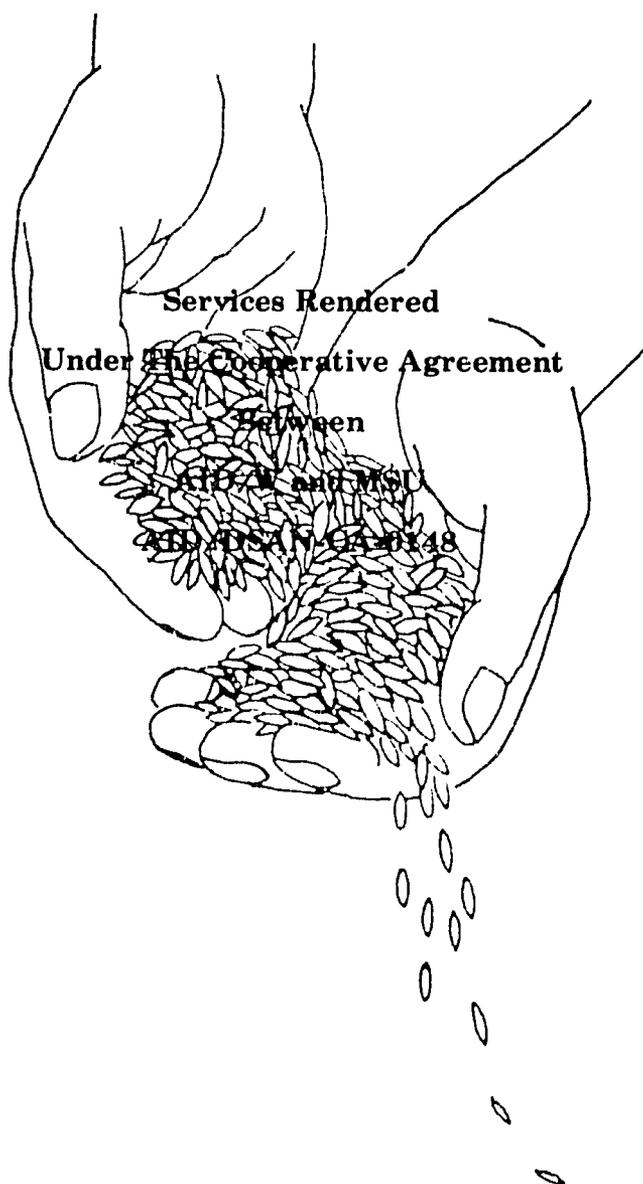


Report to:
AID/W, USAID/Ecuador and GOE

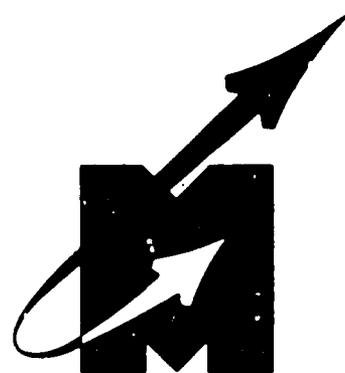
TA 81-07

INTERNATIONAL SEMINAR ON
SOYBEAN PRODUCTION
IN ECUADOR

November 8 - 13, 1981



SEED TECHNOLOGY LABORATORY
MISSISSIPPI STATE UNIVERSITY
MISSISSIPPI STATE, MISSISSIPPI



Report to
AID/W, USAID/Ecuador and GOE
on the
International Seminar on
Soybean Production in Ecuador
November 8 - 13, 1981

Services Rendered
Under the Contract
between
AID/W and MSU
AID/DSAN-CA-0148

Seed Technology Laboratory
Mississippi Agricultural and Forestry Experiment Station
Mississippi State University
Mississippi State, MS 39762

November, 1981

Table of Contents

Report Summary	1
Acknowledgements	3
Background	4
Terms of Reference	5
Implementation	6
Appendix I	8

REPORT SUMMARY

TITLE: International Seminar on Production of Soybeans in Ecuador

CONTRACT: AID/DSAN-CA-0148 with Mississippi State University

CONSULTANT: Dr. C. H. Andrews, Seed Technology Laboratory, MAFES, Mississippi State, MS 39762-5267

PERIOD OF CONSULTATION: November 8 - 13, 1981

USAID/Ecuador received a request from the National Institute of Agriculture and Livestock Research (INIAP) in Ecuador for technical assistance in teaching a short course on soybean production. This request for technical assistance was forwarded to AID/W who subsequently contacted MSU to assist in the areas of soybean seed technology and soybean seed viability and production problems in tropical regions. Dr. C. H. Andrews was nominated for this assignment, and the AID/TAB project officer approved this nomination under the auspices of the contract between AID/W and MSU, AID/DSAN-CA-0148. The consultant departed MSU on November 8 and returned on November 13, 1981.

During this consulting period, a brief trip was taken to one of the soybean production areas to view production, harvesting and cleaning techniques. This visit provided a clear understanding of current procedures in use and provided a basis upon which to make more accurate suggestions and recommendations.

The major portion of the trip was utilized in participating in the International Seminar on Soybean production in Ecuador. Approximately 100 farmers, seed producers and INIAP technicians were in attendance. (See Appendix I for program schedule.)

The response to this program was quite good. Soybeans are rapidly increasing in importance in Ecuador, and those present expressed a great desire to accumulate as much information as possible on the production techniques for soybeans.

The program was officially terminated with each participant receiving a certificate of attendance.

ACKNOWLEDGEMENTS

The administrative and logistical support provided by INIAP was efficient and well organized. The consultant appreciates the assistance provided by Mr. Vince Cusumano, the USAID contact person in the American Embassy in Quito.

Special thanks are extended to Ing. Eduardo Calero, Subdirector General of INIAP, for his kind attention and understanding during the brief visit. Other administrators and technicians also contributed considerable time and talent towards making this program a success.

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BACKGROUND

Soybean production has rapidly expanded into subtropical and tropical zones of the world. Since the introduction of soybeans into Ecuadorian agricultural systems in the early 1970's, they are now grown on approximately 22,000 hectares. It is anticipated that production will double within the next few years just to meet the internal needs of Ecuador.

The hot, wet climate of Ecuador where soybean production is located is not conducive for the production and maintenance of high quality soybean seed. Production problems which plague soybean production even in temperate climates are magnified many times in the unfavorable tropical production zones.

To better understand and overcome soybean production problems, this international conference was organized. The international scope included consultants from INTSOY - Dr. Mike Irwin from University of Illinois and Dr. Paul Hepperly from Puerto Rico (Mayaguez) - and AID/MSU Seed Technology Contract, Dr. C. Hunter Andrews. Other INIAP scientists contributed significant information from research programs in Ecuador.

TERMS OF REFERENCE

Upon receiving a request for technical assistance from INIAP/Ecuador, USAID/Ecuador cabled AID/W outlining the specific areas for assistance. AID/W contacted Mississippi State University for assistance under contract AID/DSAN-CA-0148. Dr. C. H. Andrews was confirmed as the appropriate consultant for this assignment in the specific area of seed improvement in soybeans.

The specific topics were:

- (1) Soybean seed technology
- (2) Soybean seed viability and production problems in tropical regions.

IMPLEMENTATION

The objectives of this conference were to present up-to-date research information on the production of soybeans and to identify constraints on production in Ecuador. The conference covered a broad base of significant topics relevant to soybean production, specifically:

- (1) Soybean photoperiod - classification of varieties and their limitation in tropical regions.
- (2) Development of tropical soybean varieties.
- (3) Soybean seed viability and production problems in tropical regions.
- (4) Soybean seed technology.
- (5) Diseases of economic importance to soybeans.
- (6) Soybean rust and how to avoid its intrusion in Ecuador.
- (7) Insects of economic importance to soybeans.
- (8) Insects transmitting viral disease.
- (9) Other related topics.

To accomplish these objectives, the program coordinators outlined a detailed schedule of topics for presentation. This schedule included the work being done in Ecuador by the INIAP scientists in addition to the information provided by the international guest lecturers. (See Appendix I for detailed program.)

Based upon the questions and discussions following each topic, it appeared that the participants gained valuable information about soybean production. It was encouraging to see that many farmers (soybean

producers) were in attendance and were eager for first hand information to help them with their immediate problems. In fact the spokesman for the farmer group indicated that this seminar was extremely valuable and strongly suggested that similar ones follow, even for other crops.

APPENDIX

APPENDIX I

SEMINARIO INTERNACIONAL
DE
PRODUCCION DE SOYA

ORGANIZADO POR:

INSTITUTO NACIONAL DE INVESTIGACIONES AGROPECUARIAS
I. N. I. A. P.

ASOCIACION DE PRODUCTORES DE CICLO CORTO
APROCICO

PROGRAMA INTERNACIONAL DE SOYA
INTSOY

AGENCIA INTERNACIONAL DE DESARROLLO
AID

FECHA: NOVIEMBRE 11, 12 DE 1981

LUGAR: ESTACION EXPERIMENTAL PICHILINGUE

OBJETIVO: Este seminario ha sido preparado y organizado para transmitir y actualizar ciertos tópicos importantes en la producción de Soya para la Zona Central.

PERSONAL EXPOSITOR:

- | | |
|----------------------|----------|
| 1. Dr. L. Camacho | (INTSOY) |
| 2. Dr. P. Hepperly | (INTSOY) |
| 3. Dr. M. Erwin | (INTSOY) |
| 4. Dr. J. Andrews | (INTSOY) |
| 5. Ing. E. Calero | (INIAP) |
| 6. Ing. G. Díaz | (INIAP) |
| 7. Ing. E. Maldonado | (INIAP) |
| 8. Ing. A. Espinoza | (INIAP) |
| 9. Ing. F. Mite | (INIAP) |
| 10. Dr. V. H. Quimi | (INIAP) |
| 11. Ing. F. Venegas | (INIAP) |
| 12. Ing. C. Becilla | (INIAP) |
| 13. Ing. O. Zambrano | (INIAP) |
| 14. Ing. V. Paliz | (INIAP) |

CALENDARIO DE ACTIVIDADES

Miercoles 11:

- | | |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 8:00 - 9:00 a.m. | Inscripcion de participantes |
| 9:00 - 9:10 a.m. | Himno Nacional |
| 9:10 - 9:20 a.m. | Presentacion del Seminario: Ing. Jorge Rivadeneira. Director de la Estacion Experimental Pichilingue. |
| 9:20 - 9:30 a.m. | Bienvenida Sr. Vicente Mawyin. Presidente de la Asociacion de Productores de Ciclo Corto. |
| 9:30 - 10:30 a.m. | <u>Dr. L. Camacho</u> |
| | 1. El Fotoperiodo de la Soya, clasificacion de variedades y sus limitaciones en el Tropico. |
| | 2. El desarrollo de variedades para el Tropico. |

- 10:30 - 11:00 a.m. Ing. G. Diaz
Desarrollo de nuevas Variedades de Soya en el Ecuador.
- 11:00 - 11:30 a.m. Ing. E. Maldonado
Comportamiento de 10 variedades de Soya en la Zona Central.
- 11:30 - 12:00 a.m. Ing. E. Calero
Epocas de siembra para la Zona Central.
- 12:00 - 12:30 a.m. Ing. G. Diaz
Poblaciones y densidades de siembra en algunas variedades de Soya para la Zona Central.
- 12:30 - 2:00 p.m. ALMUERZO
- 2:00 - 3:00 p.m. Dr. M. Erwin
1. Insectos de importancia economica de la Soya
2. Insectos transmisores de Virus
- 3:00 - 3:30 p.m. Ing. E. Calero
El Moteado de la Semilla de Soya y con relacion con el Virus.
- 3:30 - 4:00 p.m. Ing. V. Paliz
Insectos, Plagas y su control en Soya
- 4:00 - 4:30 p.m. Dr. V. H. Quimi
Los Nematodos Asociados al cultivo de la Soya como posible patogenos: Descripcion y Sintomas.
- 4:30 - 5:30 p.m. Dr. J. Andrews
1. Tecnologia de la Semilla de Soya
2. Viabilidad de la Semilla de Soya y problemas de Produccion en el Tropico.

Jueves 12

- 8:00 - 9:00 a.m. Dr. P. Hepperly
1. Enfermedades de importancia economica de la Soya.
2. La Roya de la Soya y manera de como evitar su introduccion al Pais.
- 9:00 - 9:30 a.m. Ing. A. Espinoza
Combate quimico de la "Cercosporiosis" y "Mildiu" de la Soya en la Zona Central.
- 9:30 - 10:00 a.m. Ing. O. Zambrano
Influencia de variedades y localidades sobre la presencia de hongos en la Semilla de Soya en el Litoral Ecuatoriano.

- 10:00 - 10:30 a.m. Ing. F. Venegas
Malezas de La Soya en la Zona Central
- 10:30 - 11:00 a.m. Ing. F. Mite
La fertilizacion foliar como un recurso para aumentar los rendimientos en Soya
- 11:00 - 11:30 a.m. Ing. V. Becilla
Control de Malezas y Cercosporiosis en tres variedades de Soya en la Zona Central.
- 12:00 Sesion de Clausura: (Estacion Experimental Pichilingue o en el Local de Aprocico)
1. Himno Nacional
 2. Clausura del Seminario. Ing. Mario Lalama Hidalgo, Director General del INIAP
 3. Agradecimiento por un miembro escogido entre los asistentes.
 4. Entrega de Diplomas
 5. Cocktail

Inscripciones:

ASOCIACION DE PRODUCTORES DE CICLO CORTO (QUEVEDO)
ESTACION EXPERIMENTAL PICHILINGUE (QUEVEDO)
SUB-DIRECCION GENERAL DEL INIAP, GUAYAQUIL (LAS LOMAS 417 y LA QUINTA,
URDESA, TELEFONO 383-782 - 387-510)