

Joe Walker

December 29, 1969

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LATIN AMERICA TRIP

Mississippi State University Contract W-607
Seed Processing and Testing
Evaluation
931-0203

Purpose of Trip

The Mississippi State University Contract, W-607, "Seed Processing and Testing" has been in effect since December 1957 or for a period of 12 years without any on the spot field evaluation by AID/W personnel. The period from last week of October into most of November was a most opportune time to make such an on the site evaluation of the project since that period offered opportunity to participate in training courses which were being conducted on seed processing at Bogota, Colombia (October 6-28) and Quito, Ecuador (November 10 - December 4). Another course had been held at La Escuela Agricola Panamericana, Tegucigalpa, Honduras under the auspices of ROCAP from September 23 through October 17. Stops at seed cleaning plants Tegucigalpa and San Pedro, Honduras and one under construction in Panama were included in the itinerary. Assistance by A.I.D. had been given earlier in the year to the plant expansion at San Pedro and construction in Panama.

All countries visited were directly involved in seed production programs, applying for loans to start such programs, constructing new facilities or training personnel. Other countries or regions, not visited, are receiving services under the Mississippi State University Contract. Such locations should be visited also at some later time.

Mr. George Dougherty, Associate Professor of Seed Technology was one of the two who conducted the training course in Caja Agraria, Bogota. He accompanied me on the trip after the training course. Since he had participated on most of the projects which were visited, he was able to offer much assistance in the discussion of the many program and processing plants.

The trip was of exceeding importance from the standpoint of acquainting the missions with the services available from TA/AGF, and evaluating, advising and assisting on specific problems. The Agriculture Materials Division has primary responsibility for fertilizers, pesticides and seeds along with the contracts covering these products.

Attached are detailed comments on the programs and accomplishments of the countries visited.

John E. Osguthorpe
John E. Osguthorpe, Chief
Agriculture Materials Division
Agriculture and Fisheries
Bureau for Technical Assistance

Attachments
a/s

A.I.D.
Reference Center
Room 1656 NS

12-29-69

LA PAZ, BOLIVIA

At the request of the Country Director, Mr. Edward W. Coy and Chief, Rural Development Office, Mr. Jack Morris, the proposed "Import Commodity Loan" was reviewed and later discussed. A large segment of this loan is proposed for agricultural inputs to improve crop production.

As requested, the T.V.A. evaluation team report on a Fertilizer Program in Bolivia was read, reviewed and discussed in a conference with Mr. Russell Ferguson, United Nations representative, working with the local government, and Mr. Donavon Waugh, Soil Specialist for the North Carolina regional soils project. Our individual comments which were on parts each felt most qualified to report, and our collective comments on this report in general were prepared for the Chief, Rural Development Office to be forwarded to T.V.A. for review before final drafting of the report.

Other conferences held, as requested by the Chief, Rural Development, were mainly with members of the Utah State University Contract team as follows:

Austin Bryon Haws, Chief of Party
Keith Allred, Forage Production
Rondo Christensen, Economist
James Thomas, Seed Specialist

A field trip was made to the Altiplano area lying between La Paz and the Peru border in the west. This area lies along the valley bordered by snow-capped mountains. Some farming of wheat and potatoes is found in this area but mostly it is range land. Some alfalfa for livestock feed is being introduced and tested. Lahontan, a variety with moderate resistance to nematode; and Ranger, a synthetic with a wide range of adaptability, show much promise.

The mission requested a seed technology team from MSU be sent to conduct a training course of two to three weeks. The request was discussed and it was decided to delay this training until after at least one or two crop harvests had been made. To conduct a training course on seed processing before seed has been produced seemed a little premature.

Upon return to the office, requests for assistance in locating sources and prices of various agriculture commodities and equipment had been received from Lloyd Clyburn, Deputy Rural Development Office. The information has been forwarded to the mission through the regional bureau.

It is obvious, once the services of this bureau are known, they will be used.

LIMA, PERU

AID/Peru does not have a direct-hire agriculture technician on the staff at present and consequently is considerably handicapped. There are two contract teams from North Carolina and Iowa Universities working in agriculture. For the interim, Mr. Fred Mann of the Iowa contract team, who is working on land reform, is also acting as Rural Development Officer on a part-time basis.

Conferences in the Mission were held with Mr. Harold Rex, Executive Officer, Mr. Greco, Acting Mission Director and Mr. Safford Mosky, Program Officer, all of whom ask us to evaluate the two University Contracts, and read and recommend courses of action on several agriculture papers they have prepared.

I did not feel qualified to comment on the Iowa University Contract on agrarian reform and related problems. The North Carolina contract is under the direction of Mr. Harvey Bungardner, who has an office in the Ministry of Agriculture. Most of his staff, however, are stationed at the Experiment Station or University at La Molina, some 14 miles from Lima. The work being done on this contract is the finest I have seen. The high quality of their work results to a large extent from the length of time they have assisted on the program, excellent equipment and staff, which has been provided by the contract and the facilities provided by the host government through the University at La Molina. Many of the department heads are graduates of U.S. Universities and Colleges. This contract is also served by "Campus Cooperators" specialist, who comes down for a month or two at a time to assist in intensive work, such as at planting, harvesting, and for laboratory testing and analysis.

The greatest concentration of work, at present, appears to be on the improvement of potatoes, a basic food crop. Other crops they are working on include forages and livestock improvement, field beans, corn and some vegetables. Because of a reduced staff, fruits have been dropped for the present. There is also a seed production and technology section, which the Ministry operates and is partially financed by the Pockefeller Foundation. It is headed by a Seed Technology graduate from Mississippi State University.

A trip was made to Huancayo the large agricultural area in the Altiplano Region, lying in one of the valleys of the Andro Mountains, at about 11 - 12,000 ft. elevation.

We met with the Regional Director and Mr. Ricardo Yaya, entomologist, who recently returned from two years of study at North Carolina, on potato diseases and insects. The research station which encompasses some 80 acres, was visited. We were shown the work being carried out and discussed future plans with the Director and his staff.

Several varieties of foundation stock potatoes were being developed at the station. This work is under the direction of Mr. Bryan of the North Carolina team. These varieties have proven far superior to the local varieties and show considerable resistance to "Golden Nematode", a disease which drastically

reduces yields throughout the country. Two varieties, one of Dutch origin and the other from U.S. were the outstanding varieties selected from the research trials to be tuber indexed, increased as foundation seed and ultimately released to the farmers when sufficient stock becomes available.

Other staffs visited ^{and their work discussed include:}

Dr. Sawyer, Potato breeder, North Carolina
Frank Doggett, Forages, North Carolina
Larry Cono, Soils, Experiment Station
Ing Mansique, University of La Molina, Mais breeder
~~Baynington~~ ^{Rayman}, Research Advisor, North Carolina
Byron, Potatoes, North Carolina
Antoine Mansique, Coordinator, Coast Projects,
University of La Molina
Carlos Herrera, Seed Technology, Dept. Exp. Station
Dr. Scheuch, Director of corn breeding, University, La Molina
Felix Queredo, Director of Exp. Station, Lamolina

QUITO, ECUADOR

A three-week course in seed technology was in progress when I arrived in Quito. The classroom and on the job training was being conducted at the Santa Catalina research station (I.N.I.A.P.) Institute National.

Dr. Curt Delouche, Director Seed Technology Laboratory and Dr. Charles Vaughn, Associate Professor, Seed Technology were conducting the course. Translation from English to Spanish was done by two Ministry of Agriculture employees who had recently returned from the states with M.S. and PhD degrees in agriculture.

Assisting in the program was Mr. Jack Traywick of the Rockefeller Foundation, who is working with the Ministry in seed production at the research stations. The course was under the sponsorship of the Seed Certification Division, not the Research Service, however, the 30 participants were from both services and private business.

The course was well conducted and was drawing praise from those participating as well as from the heads of services involved.

Besides the class work, considerable time, mostly in the evenings and weekends, were spent with the government officials in discussions of types of plant facilities needed to supply various crops, location of plants, storage problems, plant design, additional training or specialization needed. The training needed outside the country, will be sponsored jointly by AID and Rockefeller Foundation.

Several conferences were held at the request of and with Mr. Lee Winters, Rural Development Officer. (1) We met with Mr. Herman Crellana, Director Seed Certification Ministry of Agriculture on the plans for expansion, training, kinds of seeds to be processed and type of facilities needed for drying, processing and storage. Also, availability of different crops and species from other locations such as potatoes from Peru, corn from CIMMYT, rice from IFRI and other varieties as species from USDA, NCR were considered. (2) We met with Mr. Jaime Burbano, Assistant Manager, Banco de Fomento, to discuss the proposed "Agriculture Sector Loan" and the "restrictions", availabilities, pricing, etc. of fertilizers, pesticides and seeds. This office, Agriculture Materials Division, will supply upon request from the mission, current prices, availability, specifications, packaging and related information on these products, as a guide to the bank, when they plan to place orders for these commodities. (3) We met with Mr. Robert Menges, Country Director, to explain and discuss the services offered to the missions through the bureaus, of the TA/AGF.

PANAMA CITY, PANAMA

In Panama we met with the Country Director, David Lazar and the Deputy, Henry Ackerman to discuss the TAB and the services available to the mission.

At the request of the Chief, Rural Development Division, Robert Moffett, the pending Agriculture Development Loan, which includes seed processing equipment, was reviewed. Several errors in the type of seed cleaning equipment being requested and the value of this equipment was noted by George Dougherty of the Mississippi State Seed Technology section. A weekend conference was called with Senor Manuel Lopez, Chief Seed Division, Ministry of Agriculture to correct these errors before the scheduled official signing by both governments, two days later. Other conferences were held with Erwin Bullard, Deputy Rural Development and Jim Philpott, Assistant Director of Planning, at their request. The statement of Mr. Moffat, concerning the work of the Mississippi State Seed Technology Division was significant. He stated, that mission personnel could all leave tomorrow and would probably cause only a ripple but if the M.S.U. technicians were cut out, the government would really raise the roof. They are completely taken over by the government whenever they come down.

Mr. George Dougherty, who accompanied me on the trip, came in for added praise by the Ministry of Agriculture Office who holds him as second to none and whose work and recommendations are law.

BOGOTA, COLOMBIA

The final day of lectures of the seed training course, sponsored by the "Caja Agraria" was attended. Completing the three week course were twenty two from Caja, including Eduarte Villota, the Chief of the Seed Division, and eight from private industry. The course work was conducted at the Institute of Colombian Agropecuario (I.C.A.) at Mosquera. Also at this site is one of the seed cleaning plants.

Lectures and class discussion sessions were in English with simultaneous translation into Spanish. Discussion sessions that were held around the plant were mostly in English as many of the participants spoke or understood English and they interpreted for those who did not.

A dinner was given at the conclusion of the course, at which the Minister of Agriculture presented certificates to each participant who had completed the course. The event received good publicity in the local papers. After the course, three staff members of Mississippi State University, Mr. George Dougherty and Dr. Hunter Andrews (who had conducted the course), and Dr. James Delouche, Head of the Seed Technology Division; and I were asked to study the operation of two plants on the coast. The plants built by the government at close to a million dollars but not operational were:

- (1) Cereto, an operation for corn processing, drying and storage. It is located in a tropical coastal region having high moisture and high temperature. These conditions have defied proper storage and drying to date. The plant was designed for grain, not seed drying and storage. The large bins were not constructed for drying and the small attached drying units are inadequate.
- (2) Valley Dupar - This plant is further inland, having been under construction for over a year. The drying facilities, as planned, appear to be inadequate. They are being built as a grain storage aeration system. Such a system allows the temperature to rise and tends to destroy the grain.

To further aggravate the problem, there was high weevil damage in the field as the corn ripened. This made it necessary to harvest by hand, with moisture levels of 26 - 29% in the grain.

This tour was made with Eduarte Villota, Chief, Seed Division in a plane furnished by the Minister of Agriculture.

A detailed report summarizing the problems and recommending changes in the operation of these two plants is now being prepared by M.S.U.

A visit was made to I.C.A. (Instituto Colombiana Agropecuario), at Mosquera where the Nebraska and Oregon State Contract Staffs have offices. Mr. Juan Cardenas, Oregon State University, regional weed control specialist, showed us the facilities and the weed control work being conducted at the experimental station. The plots were only fair, but as Mr. Cardenas

explained, the ground had not been prepared well and seeding was late. He also stated that the weed control work had not received priority in the preparation of the land. As a result, it had not been possible to plant at the best time for proper testing.

Handwritten: 11/14/54
A book on native weeds with color pictures, description, and common and botanical names, is being readied for printing in Spanish. This will be of great value to those working with weeds, identification and control.

Conferences were held, at the request of Mr. Herbert Johnson, Deputy Comptroller, with private importers and officials of the government who are importing fertilizers and pesticides. Topics discussed were AID's policy on prior approval, specification, bagging or other packaging, quality control, pricing and related subject matters. The groups who came were well pleased with the discussions, stating that they had never really understood before what and why the restrictions were imposed on AID-financed material. They also indicated they were pleasantly surprised that AID/W was interested in seeing that they got quality material, well packaged, and at the lowest possible cost.

A conference was held, at the request of Mr. Thomas Lopez, Chief, Office of Planning, Ministry of Agriculture to discuss the purpose and functions of the Technical Assistance Bureau. He will be calling on T.A.B., he assured me, for assistance in several fields of work, which are now under discussion, with the newly appointed Minister of Agriculture.

Several conferences were held with Mr. James McDermott, Chief, Rural Development Service, Agronomist Agipedo Olea, and with Mr. Marvin Weisman, Country Director.

TEGUCIGALPA and SAN PEDRO, HONDURAS

The stop in Honduras was of particular interest as it is where assistance in seed production and processing has been going on for several years and shows the results of building on a firm foundation. The work was started some ten years ago by Dr. Wilbur Harland AID/Seed Technology and has progressed on its own, with periodic assistance and training under the MSU contract.

The seed plant at Tegucigalpa is under the direction of Senor Otonial Vierra, Desarrural-Ministor of Agriculture. This plant processes and stores beans and corn mainly, but the capacity and additional machinery is being added to handle other seeds. Senor Flabio Tinoco, an able technician is the plant manager. The plant at San Pedro is a larger and more complete operation with large drying and storage capacity, to handle the seed in the semi-tropical coastal region. This plant is also being enlarged and a control storage room for the seed bank of breeding material is being built. All this expansion is with local money but with M.S.U. supplying the specifications and plant plan.

Senor Herman Flores is the plant manager. This is also the headquarters for corn, rice, sorghum and bean plant breeding, the work headed by Dr. Remero who received his PhD from North Carolina.

At San Pedro, we visited Senor Vierra, Tinoco and Flores who have all spent time at MSU as student, short course participants or on special study problems.

The processing and storage facilities at these locations are very good but the yields are very low, especially in beans. It was acknowledged that the program of fertilization and insect and disease control have not kept pace with the good processing facilities. A little assistance here would probably launch these programs also.

Other conferences were with Mr. Walter Stoneman, Country Director and Mr. Richard Hughes, Assistant Rural Development Officer where the functions of TAB and the services it offers were discussed.

They indicated that a soil fertility technician was now the greatest need but the Balpa ceiling eliminated this. They hoped to get a Peace Corps type who could be supervised by Mr. Jim Walker-M.C. regional soils contractor stationed in Guatemala, but who only get over about one week in every three months.

A visit was made to Escuela Agricola Pan Americana some thirty miles of mountain dirt road east of Tegucigalpa. This is a private organized autonomous three year agricultural technical school. AID contribution last year was in the form of a grant for \$150,000.00 plus \$50,000.00 for buildings and equipment. A seed course in seed technology had just ended when I arrived. It had been conducted by two technicians from MSU, Jim Beck and A.H. Boyd, Jr., under the auspices of USAID/ROCAP.

The plant facilities, research and general cropping area was visited and discussions held with various department heads.

The agronomy work, including seed identification, testing, grading, processing, treating and storage were discussed in detail with Dr. George Freytag Head Professor. Dr. Freytag is from the University of Wyoming. Dr. Robert P. Armour Director (Scotland) discussed the purpose of the school, its objectives, course work and the operation of the school.

This is a very worth while program which has had and will continue to have much effect upon the agriculture of Central and South America. The students are from many countries and after completing the course of study they often go on to the states, usually the University of Florida, for BS and advanced degrees. The graduates of this school fill positions at the extension service level, in many countries. The course is one-half day for academic and one-half day for on-the-job training. As most of the students entering the school are from the cities, the practical application of knowledge gained in class and laboratory is of particular value.

SUMMARY

The lack of knowledge of what services were available from AID/W was most apparent in every mission visited, some more than others. Generally, those visited indicated they had heard about TAB but "what assistance can it give us?"

A copy of M.O. 204.8: "Establishment of the Bureau for Technical Assistance," and a briefing of the services it offered, were given to each Country Director and Rural Development Officer. Some had never seen a copy, others remembered it but could not find their copies. Most were unaware of the services it offered as well as details of M.O., Airgram and other Forms.

Hardly any of the Rural Development Officers and none of the contract teams knew of this service. Most were delighted to learn that such a service existed and asked for forms they could fill out to request the services.

M.O. 1415.3.2 Borrower/Grantee or Importer Procurement: Standard Commodity related Special Provisions - Attachment A - Special Provisions. Technical specifications, bagging, quality control and an explanation of how they had been carried out and what they meant with respect to assurance of receiving quality product, properly packaged, were of particular interest to missions that had or planned to have fertilizer and pesticide program loans. Copies were also requested and given as far as the stack I carried reached to the United Nation and British mission technicians who attended meetings where fertilizers were discussed. They stated they had little or no technical material of this nature in their missions and were delighted to get copies of most everything I had brought along. The lack of knowledge of what research was being conducted and the varieties being tested for increased release and distribution at the various countries and Universities or Experimental Stations in those countries were amazing. Duplicate work was being planned or conducted in similar ecological regions where one would have sufficed for both - example potato and alfalfa testing in the Altiplano Regions of Peru and Bolivia. Pertinent information was passed on so contacts could be made and possible sources of superior seed exchanged.

Mr. Donavon Waugh, Soil Specialist, formerly stationed in Peru, was trying to make a comparison between the soils work he had done in Peru with needs in Bolivia to ascertain if the same information could not be applied to both countries.

A review of W-442, "AID-Financed University Contracts" and W-443 "Current Technical Service Contracts," both issued December 31, 1968, do not give enough information as to what is available. A brochure summarizing the activities of the world-wide programs, including the cost to the missions, duration of contract and similar information, is needed. Such a brochure could be patterned after "Guide to AID Sponsored Training Opportunities".

Reviewed with Calton Moulton 11/20/68

W. C. Moulton

SUMMARY

2 vs 1 motor concludes with
9 questions page 2

Requests made concentrated on the field of work closely allied to the Agricultural Materials Division mainly because that was the field on which I could speak with greatest knowledge - questions such as:

Could a regional seed technology specialist from the MSU Contract be stationed somewhere in Latin America - Ecuador - Columbia and Panama? All wanted this.

Can arrangements be made with TVA to furnish, produce or purchase, various minor elements for research and testing - Bolivia & Peru.

More information is needed on the Kansas State grain storage work - Ecuador needs help but didn't know such a Contract existed or what it covers. Can seeds be obtained for testing - who can help select varieties that may be adaptable for various elevations and ecological conditions? Bolivia, Columbia, Ecuador - this was covered in ALIJO CIRC A-436 dated November 21, 1968 under USDA/FASA. Changing mission personnel makes it mandatory to repeat this type of information at least once a year. What does the rice thresher look like which was developed for use in the Far East - what is the cost, could it be made locally?

If there is a small stationary thresher available in the U.S. which could be used in the villages or by cooperative groups? Bolivia was trying to build one patterned after the now discontinued "Turner Economy."

As fertilizer and pesticides are under the commercial import program and not subject to AID price review before purchases are made, is there anyway of getting current prices before purchases are made? Note - I can only say that some invoices I reviewed, showed that the method of buying i.e. small quantities, non-standard specifications etc., had doubled the price in comparison with controlled purchasing through tendering which does not often lend itself to small individual purchases. Much improvement in price and quality, however, is possible even under the present purchasing methods.

These are only a few of the many problems raised by AID and host governments.

All the missions visited and the host government personal, often the Ministry of Agriculture, were very laudatory of the high level of technical personnel furnished under the contract and the services rendered by the University through follow-up correspondence (see attachment).

Miss ...
for ...
if they talk to ...
to ...

10/1/68

MEMORANDUM

DEPARTMENT OF STATE

UNCLASSIFIED
CLASSIFICATION

For each address check one ACTION | INFO

25W

DATE REC'D.

TO - AID/W TOAID A 449

NOV 12 1969

AID
C & A - BR

DATE SENT
12/15/69

DISTRIBUTION
ACTION

TAB
INFC.

CA

FROM - PANAMA CITY

SUBJECT - Request for information on regional and world wide contractors

REFERENCE -
FOR - JOHN OSGUTHORPE, TAB/AGF

Confirming conversation during your recent visit to Panama:

1. The Mission would like information on the regional and world wide contracts that are available to the agriculture sector with a detailed description of the services.
2. What Mission costs are involved under the separate contracts?
3. We are also particularly interested in what services can be provided under the new CIMMYT contract? The GOP is interested in assistance in the field of corn breeding and testing of hybrids, open-pollinated varieties and synthetics.

*Welchman was depressed a
draft. He has not done so.
We should contact him soon
MOSKOWITZ*

NOV 15 1969

DRAFTED BY: <i>ETB</i>		OFFICE	PHONE NO.	DATE	APPROVED BY:
ETBullard:yam		Rural Development	64-4011	12-9-69	DIR: DLazar <i>[Signature]</i>
AID AND OTHER CLEARANCES					
RDO: JRMoffett <i>[Signature]</i>		Office of the Director <i>[Signature]</i>			
ADDP: JOPhilpot <i>[Signature]</i>		UNCLASSIFIED CLASSIFICATION			