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MONTHLY REPORT - JANUARY, 1986

CHAFARE REGIONAL DEVELOPMENT
PROJECT

EXPERIENCE, INCORPORATED

COCHABAMBA, BOLIVIA

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I. ACTIVITIES

A. Administrative and Institutional

1. Owens and Violand met with Sr. Enrique Garcia, an Experience, Incorporated associate from Washington D.C. to coordinate proposal and cooperative activities. (7 Jan)
2. All E. I. consultants contributed to the annual report.
3. The Mondoñedo's returned from R&R leave on 7 January. The Alvarado's and Bieber's returned from R&R leave on 10 January. Dr. Alvarado brought back considerable plant material from Costa Rica.
4. Patricia Violand and Carlos Tejada completed an inventory of E.I. household furniture, appliances and other items. Dr. Taylor and Ricardo Paniagua completed a similar inventory of the Automobile Club de Bolivia facility in Villa Tunari. (14 Jan)
5. E.I. Staff meetings (14 and 27 Jan).
6. Leave records sent to E.I. Washington (15 Jan).
7. Dr. Owens to La Paz on administrative matters (16-17, 28-29 Jan).
8. Dr. Alvarado edited the Spanish versions of the July, August, October and November monthly reports and the Spanish version of the July-September quarterly report.
9. Days spent in the Chapare by E.I. team members: Alvarado - 13, Bieber - 14, Lopez - 3, Mondoñedo - 15, Owens - 2, Taylor - 15.
- 10 Joe Lopez assisted IBTA/Chapare Directors on completing the 1985 Annual Report for the extension component of the project and assisted IBTA trainers to design the training program for farmers on nursery management.

B. Technical

1. Meetings

- a. Dr. Alvarado met with Dr. Carlos Montaño and Ing. Waldo Tejeria at the SDTB to discuss the possibilities of financing an exotic flower operation in the Chapare. (14 Jan)
- b. Owens, Alvarado, Bieber and Lopez met with IBTA/Chapare leaders Francisco Zannier, Jorge Aldunate and Franklin Lastra to decide on the distribution of the seed brought from Costa Rica by Dr. Alvarado. (15 Jan)
- c. Drs. Alvarado and Taylor met with the Chipiriri Experiment Station director Franklin Lastra and other technical personnel to discuss the needs for a nursery for forestry species and the needs for large amounts of forage seeds as the livestock phase of the Chapare Project develops. (23 Jan)
- d. Informal meetings were held with IBTA/Chapare and E.I. technicians concerning research, extension, training and crop introduction activities.

2. Research

- a. The yuca trial at La Jota evaluating fertilizer levels of zinc application was harvested by IBTA/Chapare personnel Juan Lenis, Max Rojas, Fernando Rodriguez and Cleto Prado and E.I. personnel Alvarado, Bieber, Mondoñedo and Taylor.

Differences in yield for the 0, 5, 10, and 15 kg Zn/ha were not significant with yields of 31.0, 21.0, 24.1 and 25.9 tons per hectare, respectively.

A highly significant difference was found when comparing the absolute check (farmer's planting technique) against non-zinc application but fertilized with N-P-K. Yields were 14.6 tons/ha with the farmer's technique and 31.0 tons/ha with the improved techniques.

This means that addition of zinc at the levels used provides no significant effect on yuca yields, but addition of an N-P-K fertilizer doubled yuca yields.

- b. The peach palm trees (tembe) at La Jota were limed and fertilized by IBTA/Chapare personnel Eduardo Ayala and Leonardo Soliz and E.I. personnel Alvarado, Bieber and Taylor.
- c. Dr. Alvarado assisted Felix Saavedra and Luis Guillen in inspecting the rice, yuca and Brachiaria experiments at the Chipiriri Experiment Station. Although the rice experiment had been abandoned, the remaining experiments were in satisfactory condition.
- d. Drs. Alvarado and Bieber and Ing. Cesar Diaz inoculated the Pinus caribaea seed bed with mycorrhizae brought from Costa Rica. Lime is also being recommended for improvement of the seed beds at La Jota.
- e. Dr. Alvarado worked with Ing. Fernando Rodriguez in recalculating corn response to N-P-K fertilizer applications as the previous calculations had been lost.
- f. Ing. Eduardo Ayala and Drs. Alvarado, Bieber and Taylor weeded the corn-fertilizer experiment at ITAC.
- g. Dr. Taylor assisted Ing. Daniel Sanchez gather secondary data on social, economic and agronomic conditions in the Chapare from various sources in Cochabamba. Some agencies contacted were CORDECO, CERES, INE, MACA and SDTB. Relevant publications from MASI and PRODES were also collected.
- h. Dr. Taylor assisted Ing. Cleto Prado in inspecting the banana, plantain and citrus plots at Chipiriri. All were in the process of being renovated.
- i. Ing. Juan Lenis and Leonardo Soliz, and Drs. Alvarado and Taylor initiated evaluation of a yuca storage technique that may provide farmers a longer shelf life of yuca, after harvest.

- j. Dr. Bieber wrote five research reports for the 1985 studies. They were (1) cowpea and bean performance in the yuca systems trial (2) legume variety trial (3) Bean-cowpea Rhyzobium trial (4) cowpea variety test (5) cowpea variety observation plots.
- k. Dr. Bieber sprayed the seedbeds at La Jota three times and the corn at ITAC twice for insect control.
- l. Dr. Mondoñedo worked with IBTA/Chapare counterparts on the possibilities of a research project on off-season production of pineapples and on action to be taken on research projects started but lacking follow-up due to problems encountered.

3. Training and Extension

- a. A farmer's training program in seedbed and nursery maintenance was held at La Jota with eleven farmers attending.
- b. Drs. Alvarado and Taylor began preparation of materials for presentation at the IBTA/Chapare technicians' training workshop on how to prepare research proposals and plan work. The workshop is scheduled for the first week in February.
- c. Dr. Mondoñedo started preparation of two technical bulletins: one on the use of a transparent plastic hose level for contour farming and the other on the propagation of plants by rooting of stem sections.
- d. Joe Lopez met with Ing. Jorge Aldunate and Dr. Alvarado to complete the list of genetic material that he plans to purchase while on his vacation to Costa Rica.
- e. Joe Lopez, traveled to Gualberto Villarroel to check on the UPDS in the community. He noted that many of the rice plots had piriculania (fungus) and reported the information to the IBTA Directors.

- f. Joe Lopez, traveled to Bubusama with four promoters from the Project. They observed that the community nursery was in good condition. A cooperating farmer had been supervising the nursery. One Sindicato leader asked that IBTA come more often to assist them in their agriculture. The group responded that IBTA lacked river transportation and until that problem is resolved, they would only be able to visit on a limited basis.

4. Crop Introduction and Collection

- a. Dr Alvarado purchased seed and plants for the project in Costa Rica during his R&R leave. Official contacts were made with the Ministerio de Agricultura y Ganaderia, Facultad de Agronomia de la Universidad de Costa Rica, Centro Agronomico Tropical de Investigacion y Enseñanza (CATIE), USAID/Costa Rica project manager of the Agricultural Development Division (Mr. David S. Gardella), and ASDANA Experiment Station at 28 Millas. Other contacts were made with privately owned farms. The following species and (amounts) were purchased: two varieties of corn (15.5 kg), five varieties of beans (935 g), seven varieties of cowpea (1670 g), malanga (11.0 kg), chamol (6.5 kg), sweet potato (30 plants), yampi (2.0 kg), ñame (5.5 kg) Cordia alliodora (1.3 kg), Erythrina poepigiana (850 gm), Gliricidia sepium (500 g), Pinus caribaea (500 g), two varieties of macadamia (298 seeds), guanabana (250 g), rambutan (250 g), cas (60 g), mora (50 g), peach palm (3.5 kg), black pepper (500 g), allspice (40 g), and 12 species of medicinal plants. The seed and seedlings were delivered to Ing. Jorge Aldunate and is being planted at the La Jota Experiment Station by IBTA/Chapare and E.I. personnel.
- b. Dr. Bieber planted sweet potato (var. C 15) and ginger plants introduced from Costa Rica, at La Jota.
- c. Drs. Alvarado, Bieber, Mondoñedo and Taylor worked with IBTA/Chapare technicians Cesar Mealla Max Rojas and Javier Guevarra in planting medicinal plants and seeds, forestry plants and macadamia nuts at La Jota.

- d. Dr. Mondoñedo continued monitoring of seedbeds and nurseries of newly introduced crops and added more plantings to the collection of rootstock of mango and avocado in preparation for grafting with introduced varieties and selections.
- e. Drs. Mondoñedo, Alvarado, Bieber and Taylor assisted counterpart Juan Lennis in the preparation and planting of newly introduced rootcrops (Colocasia and Dioscorea) at the La Jota Experiment Station.
- f. Dr. Mondoñedo performed technical backstopping for E.I. Washington on the introduction of hybrid coconuts and citrus seeds for rootstock in the Chapare.
- g. Joe Lopez, is programmed to collect genetic material for the project while on his visit to Costa Rica.

II. ISSUES AND SOLUTIONS

- A. A major landslide occurred at kilometer 87 on the road to the Chapare on Monday, 6 January. Thirty four deaths occurred as a result of the landslide. It closed the road completely to vehicular traffic for ten days. For the remainder of the month, traffic was sporadic and usually during the off hours of the Servicio de Caminos. Passage was at best a one way situation with all roads deteriorated considerably due to heavy rains. The landslide was approximately 300 meters wide and 50 meters high and took approximately 30 minutes to transverse. All personnel had to walk across carrying fuel and food through the slide area with coordination of vehicles for both sides being made by radio. Weather conditions were so bad that radio contacts were frequently impossible thus isolating personnel in the Chapare.
- B. Funds for IBTA/Chapare were frozen at the Banco Central, along with other official accounts during the week of 24 January.

- C. IBTA/Chapare personnel were unable to receive their pay from the bank due to unavailability of currency on 15 January. This caused considerable inconvenience and logistic problems between people in the Chapare and those in Cochabamba during the programmed times for transversing personnel and materials across the landslide area at kilometer 87.
- D. With few laborers at the experiment stations it is only through the emergency labor of the IBTA/Chapare and E.I. technicians that the newly introduced seeds and plants were not lost. Only through an increased number of laborer personnel can the experiment stations become a viable and effective part of the Chapare Development Program.
- E. Contract work on the preparation of seedbeds and nurseries at the La Jota Experiment Station has been awarded and work started.
- F. Frequent rainfall has curtailed many field activities at both experiment stations.

III. WORK PLANNED FOR THE NEXT REPORTING PERIOD

- A. Technical backstopping on the introduction of new crop genetic materials and their establishment in seedbeds and nurseries.
- B. Experiments to determine fertilizer requirements of Chapare crops will be designed.
- C. Data from on-going experiments will be collected.
- D. E.I. personnel will participate in training programs where appropriate.
- E. Visits to demonstration farms will be completed.
- F. Follow-up on the stalled research projects and preparation of other research projects.
- G. Continue the preparation of technical bulletins.