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CIAT

15 MAR. 1979

~~POSTGRADUATE~~ TRAINING AND CONFERENCES

1978 REPORT

The Center has now reached a stage in its evolution when it is rapidly generating transferable technologies resulting from the research strategy of its main commodity thrust in beans, cassava, beef and rice. New germplasm selections and hybrids plus related technologies are entering the stream of validation tests in their way to farmers field, through training and outreach activities in collaboration with the countries. National institutions are increasing their attention on CIAT as a source of transferable technology that they may further test and adapt to their local conditions, use in cooperative research endeavor, or utilize as departure points for independent efforts in generating local technologies, and move forward through extension transfer mechanisms, to be finally adopted by farmers and ranchers to increase production and productivity.

Training now acquires increase relevance as a means to: 1) accomplish inter-institutional transfer of technology, 2) help to link research and extension and 3) strengthen national institutions to act cooperatively as well as independently in applied research on CIAT's commodities. In these three dimensions training emerges as a means to an end - transfer CIAT's technology - and as a product-capable professionals-parallel and intimately related to that technology.

The need for well trained professionals has so been recognized by commodity programs at CIAT during 1977 that the number of persons enrolling in training at the Center increased from 195 in 1977 to 314 in 1978 (Fig.1) with participants from 22 countries in the America, 5 from Asia and 2 from Europe.

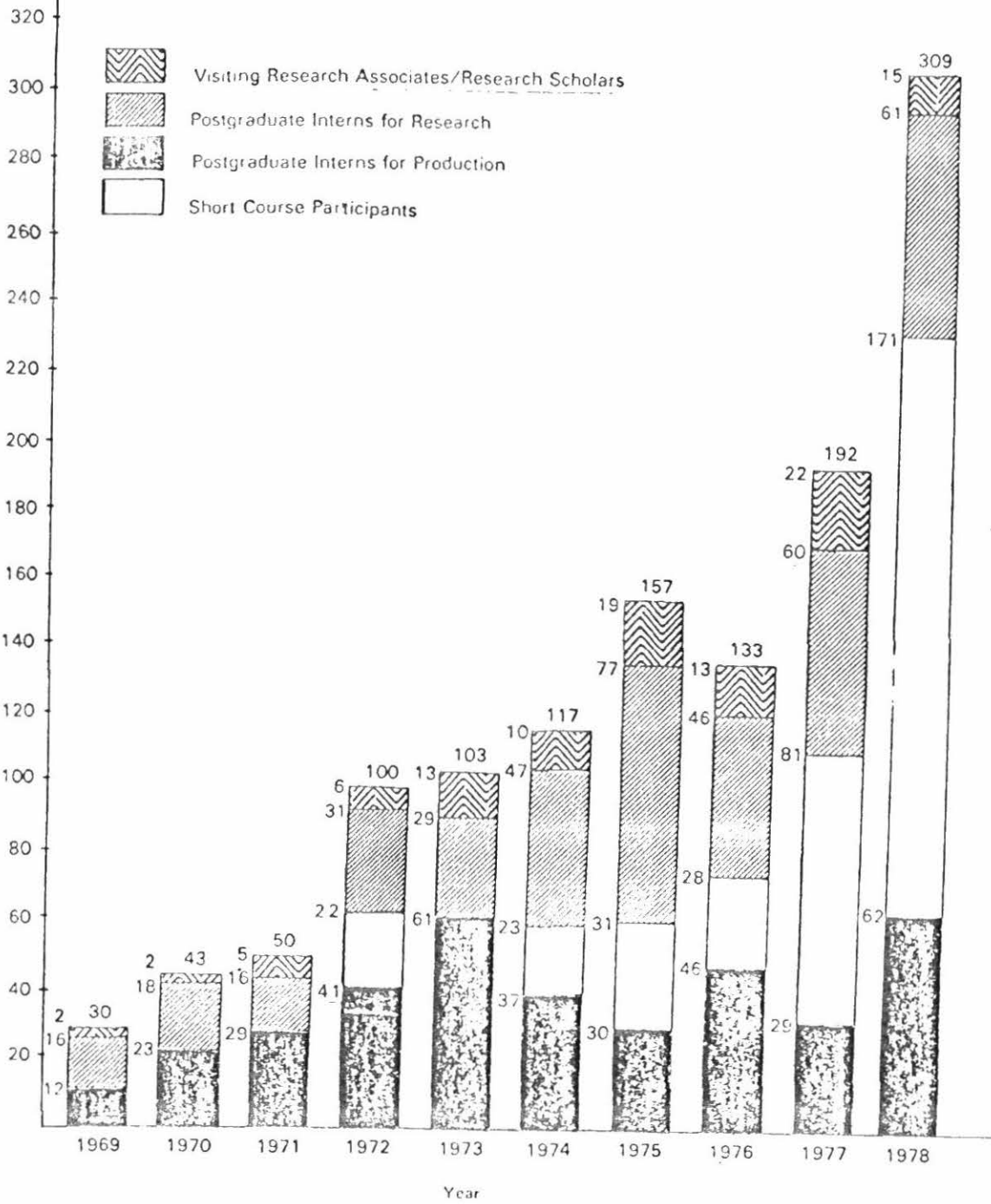
Training for Research Networks: Increasing attention is being given to the consolidation of technology validation networks on a regional as well as on a national basis. These are being coordinated by an outreach scientist, as in particularly the case of forages for the acid infertile regions, beans and rice in Central America, cassava in Latin America and Asia, and swine in Latin America. Thus the purpose of the training and the task of follow up are integrated in one tactic, with cooperative research and validation trials.

Research networks now are closely monitored in each program in a process of transfer of technology materials, information and design and of feed back of information on results of tests on these.

The urge to achieve critical mass: Before notable actions are applied and results attained in validative and adaptive research, a minimum number of professionals are required for each country, preferably as a team. This has prompted CIAT's programs into giving preference at this time to a short-term

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FIGURE 1



Number of CIAT training participants by training categories, 1969-78

training primarily through intensive 4-5 week courses; 171 professionals from a total of 314 trained at CIAT in 1978 participated in five short courses, two on cassava, two on beans and one on seeds. These totals 188 man-months or 22.22 % of the training times invested in CIAT this year. Figure 1 shows the portion of trainees in this and each category over the eight years of training activities at the Center. Short courses are multidisciplinary and cover the entire production spectrum. They are intended primarily for research scientists with already substantial experience.

The demand for short-term training: Longer term training is desirable to equip scientists of national programs with solid knowledge, effective research skills and indelible working habits, however, often time the national organizations can not spare the time of their scarce scientists for more than one or two months or the scientist is not willing to depart with job and family for longer periods. This explains the high demand there is for short courses that at CIAT are of intensive nature. CIAT staff however, are aware that short term training has disadvantages for young inexperienced professionals and has serious limitations in regards to developing research skills and work habits, as the short time does not facilitate learning by doing.

The essentiality of medium and longer term training : In spite of the large number of professionals trained in short courses at CIAT still 143 of a total of 314 were trained in medium-term (4-6 months) and longer at CIAT. This represents 658 man-months that is 77.78 % of the total time invested on training at the Center. The categories of Post-graduate interns, MSA and Ph D thesis scholars, and post-master Visiting Research Associates still constitute the main core of CIAT's training endeavors and are expected to have long lasting and deep effects on national programs in the long run.

Maintaining appropriate balance: CIAT is careful therefore in not over-emphasizing short term training neither limiting itself to longer term training. An adequate balance is sought constantly taking into account the specific needs of each country in each commodity. Table 1 shows the number of professionals that have received completed training at CIAT during 1978, by commodity programs and categories and the equivalent man months.

Training in each commodity program and support units: At the present all training is conducted within each commodity program or unit and is reported in their respective sections in detail.

Disciplinary Research Training vs. Production Training: Some of the needs of national programs require specialized training along a given discipline. The individualized in-service training categories serve well this purpose. Other needs of both the programs as well as CIAT regarding mostly technology validation and transfer are best served by a multidisciplinary approach where all pertaining disciplines are focused on the commodity from a research angle and primarily for the purpose of validative testing as a first step in transferring CIAT's technology. This latter approach is applied to the so called "production" courses at CIAT. Figure 2 shows the schedule of these courses in 1978. The number and man months of participants are given in Table 1. Table 2 shows the distribution by programs and disciplines

POSTGRADUATE TRAINING COURSES AT CIAT

Program	January	February	March	April	May	June	July	August	September	October	November	December	
BEANS	Jan 30	30		13		Jun 23		Aug 21	38	Sept 22			
BEEF						Jun 23			21			Dec 1	
CASSAVA	Jan 14	30	Feb 13		May 1	46	May 30						
RICE			Fri 24		10	Jun 23		Aug 18		10		Nov 15	
SWINE							Jul 17			21		Nov 17	
OTHERS	Jan 15												
		Station operations management			Documentation	Jul 3							
	2							17	Aug 31	Seed Techno-logy	Nov 6	29	Dec 1
										3		Dec 15	

FIGURE 2

Table 1. NUMBER OF PROFESSIONALS TRAINED AT CIAT IN 1978 BY COMMODITY PROGRAM - MAN-MONTHS ARE GIVEN IN PARENTHESIS

Program	Category of Training							Total					
	Postdoctoral Fellows	Visiting Research Associates	Research Scholars	Postgraduate Research Interns	Postgraduate Production Interns	Special Trainees	Short Course Participants						
Beans	2 (10)	2 (12)	4 (27)	28 (97)	-	2 (6)	59 (59)	97 (211)					
Cassava	2 (7)	-	-	8 (59)	-	2 (13)	68 (70)	80 (149)					
Rice	-	1 (4)	-	1 (4)	21 (85)	6 (16)	-	29 (109)					
Beef	-	2 (5)	4 (35)	3 (19)	20 (101)	1 (6)	-	30 (166)					
Swine	-	-	-	1 (1)	21 (81)	-	-	22 (82)					
TOTAL COMMODITIES	4 (17)	5 (21)	8 (62)	41 (183)	62 (267)	11 (41)	127 (129)						
Others													
Biometrics	1 (8)	1 (5)	-	-	-	-	-	2 (13)					
Seed Production	-	-	-	-	-	-	29 (29)	29 (29)					
Soils	-	-	1 (12)	2 (4)	-	-	-	3 (16)					
Library and Information Services	-	-	-	-	-	1 (7)	15 (30)	16 (37)					
Station Operations Management	-	-	-	5 (29)	-	-	-	5 (29)					
Laboratory Management	-	-	-	1 (5)	-	-	-	1 (5)					
TOTAL	1978	1977											
	5 (25)	3	6 (26)	15	9 (74)	7	49 (218)	36	62 (267)	12 (48)	171 (188)	314 (846)	195

PROFESSIONALS TRAINED AT CIAT IN 1978 BY COMMODITY/DISCIPLINE OF SPECIALIZATION AND CATEGORY OF TRAINING *

Category of training

Discipline of Specialization	Post-doctoral fellows	Visiting research associates	Research scholars	Postgraduate research interns	Postgraduate production interns	Special trainees	Short course participants	Sub-program totals	Total commodity programs
agronomy	-	1 (8)	-	10 (22)	-	-	-	-	11 (30)
biometrics	-	-	-	1 (2)	-	-	-	-	1 (2)
entomology	-	-	-	3 (15)	-	1 (5)	-	-	4 (20)
plant breeding	1 (8)	-	1 (5)	5 (12)	-	-	-	-	7 (25)
plant pathology	-	-	3 (22)	5 (12)	-	1 (1)	-	-	9 (35)
plant physiology	-	-	-	1 (4)	-	-	-	-	1 (4)
crop association	-	-	-	2 (9)	-	-	-	-	2 (9)
production	1 (2)	1 (4)	-	-	-	-	59 (59)	-	61 (65)
plasm	-	-	-	1 (4)	-	-	-	-	1 (4)
TOTAL	2 (10)	2 (12)	4 (27)	23 (62)	-	2 (6)	59 (59)	-	97 (111)
agronomy	-	-	-	2 (14)	-	-	-	-	2 (14)
biometrics	-	-	-	-	-	1 (12)	-	-	1 (12)
economics	1 (6)	-	-	-	-	-	-	-	1 (6)
plant breedings	-	-	-	1 (9)	-	-	-	-	1 (9)
plant pathology	-	-	-	2 (7)	-	-	-	-	2 (7)
plant physiology	1 (1)	-	-	1 (10)	-	-	-	-	2 (11)
soils	-	-	-	1 (9)	-	1 (1)	-	-	2 (10)
production	-	-	-	1 (10)	-	-	68 (70)	-	69 (80)
TOTAL	2 (7)	-	-	8 (59)	-	2 (13)	68 (70)	-	80 (117)
plant breeding	-	-	-	-	1 (4)	2 (2)	-	-	3 (6)
production	-	1 (4)	-	-	20 (81)	1 (2)	-	-	22 (87)
communication	-	-	-	1 (4)	-	1 (1)	-	-	2 (5)
rural sociology	-	-	-	-	-	2 (11)	-	-	2 (11)
TOTAL	-	1 (4)	-	1 (4)	21 (85)	6 (15)	-	-	29 (109)
biometrics	-	-	-	1 (6)	-	-	-	-	1 (6)
economics	-	-	1 (4)	-	-	-	-	-	1 (4)
microbiology	-	1 (2)	-	1 (3)	-	-	-	-	2 (5)
production	-	1 (3)	1 (12)	-	11 (54)	-	-	-	13 (69)
animal health	-	-	2 (19)	-	-	-	-	-	2 (19)
pastures & foris breeding	-	-	-	1 (10)	9 (47)	-	-	-	10 (57)
pastures & foris utilization	-	-	-	-	-	1 (6)	-	-	1 (6)
TOTAL	-	2 (5)	4 (35)	3 (19)	20 (101)	1 (6)	-	-	30 (155)
production	-	-	-	-	21 (81)	-	-	-	21 (81)
animal nutrition	-	-	-	1 (1)	-	-	-	-	1 (1)
TOTAL	-	-	-	1 (1)	21 (81)	-	-	-	22 (82)
UNIT'S OR SERVICES:									
biometrics	1 (8)	1 (5)	-	-	-	-	-	-	2 (13)
food production	-	-	-	-	-	-	29 (29)	-	29 (29)
soils	-	-	1 (12)	2 (4)	-	-	-	-	3 (16)
library and information services	-	-	-	-	-	1 (7)	15 (20)	-	16 (27)
extension operations	-	-	-	5 (29)	-	-	-	-	5 (29)
laboratory management	-	-	-	1 (5)	-	-	-	-	1 (5)
OTHER UNITS OR SERVICES	1 (8)	1 (5)	1 (12)	8 (16)	-	1 (7)	44 (59)	-	56 (105)
TOTAL	5 (25)	6 (26)	9 (24)	45 (218)	62 (287)	12 (48)	171 (185)	-	314 (885)

Numbers in brackets are months of training

in countries and Table 3 shows the relative attention to countries assisted, and Table 4 list all the participants in training at CIAT during the year.

Assistance to within-country Training: Assistance to within-country training continued to be provided by CIAT to interested countries in 1978. A three months course on rice was conducted in cooperation with MIDA in Panamá, and a two months course took place in INIAP also on rice. CIAT's involvement in a cycle of a six courses that included beans and rice was initiated in ICTA, Guatemala in 1976 and was completed in mid 1978. Now this training program is continuing in that country on its own.

Financing of Training: Slightly below half (151) of the professionals trained at CIAT were funded in CIAT core budget, the remainder were sponsored by other donors of which UNDP was the mayor. Table 5 shows the donors and the number of participants in each category financed by each source mayor.

CONFERENCES

The conference calendar started early January 16 to 19 with the Workshop on International Bean Breeding Trails in Latin America, Forty-three participants, from 21 countries attended.

The Beef Program held a mayor Seminar on the Production and Utilization of Forages in Tropical Acid and Infertile Soils, April 17 to 20. This event attended by 115 scientists was preceded by a Workshop on Coordinating and Planning for Collection, Preservation, Distribution and Characterization of Germplasm Resources of Tropical Forages held in cosponsorship with the University of Florida, USAID and the International Board for Plant Genetic Resources.

Immediately following these events, April 25 to 27, the IDRC/CIAT Workshop on Cassava Harvesting and Processing took place, with a participation of 21 specialists.

In May, coinciding with the Meeting of the Board of Trustees, the Annual Seminar on Advances in Research at CIAT was held. This year Directors of Research from Argentina, Colombia, Ecuador, Guatemala, Peru, Trinidad and Venezuela were present, as well as representatives of CIDA, the Swiss Government, IDB, IICA, the Kellogg Foundation, FAO and USAID.

Finally from November 1 to 3, an IICA/CIAT Workshop took place to review and evaluate the Latin American Agricultural Economics Documentation Center (CEDEAL) which has been operating at CIAT. Twenty-three economists, communicators, documentalists and agricultural scientists attended from eight Latin American countries, the U. K. and Canada.

During the year 26 internal seminars were presented. Conferences also continued to lend logistical support to the training courses, the Public Information Office, and the Commodity Programs.

Table 3. PROFESSIONALS TRAINED AT CIAT IN 1978 BY COUNTRY OF ORIGIN AND COMMODITY OF TRAINING

Country	Commodity or program									
	Beans	Cassava	Rice	Beef	Swine	Seed production	Library and Information Services	Station Operations Management	Others	Total
Latin America and the Caribbean										
Argentina	1	-	1	1	1	-	1	-	-	5
Belize	1	-	2	-	-	-	1	-	-	4
Bolivia	2	1	1	1	3	4	1	1	1	15
Brazil	20	22	1	9	1	-	1	1	-	55
Chile	5	-	1	-	-	2	1	-	-	9
Colombia	12	7	1	8	4	7	2	1	-	43
Costa Rica	6	4	2	-	-	1	-	-	1	13
Cuba	2	2	2	1	-	1	1	-	-	9
Dominican Rep.	4	1	-	1	-	2	1	1	-	10
Ecuador	5	3	4	-	2	4	-	-	2	20
El Salvador	2	1	-	-	-	-	2	-	-	5
Guatemala	5	-	-	-	1	3	2	-	-	11
Guyana	-	2	-	-	-	-	-	-	-	2
Honduras	9	-	1	-	-	1	-	1	-	12
Mexico	2	3	3	-	1	-	-	-	-	9
Nicaragua	2	1	-	2	-	-	1	-	-	6
Panama	4	1	-	2	-	3	1	-	-	11
Paraguay	-	-	-	-	3	1	-	-	-	4
Peru	6	1	6	3	3	-	1	-	1	21
Trinidad Tobago	-	1	-	-	-	-	-	-	-	1
Venezuela	4	3	1	1	2	-	-	-	-	11
Other countries										
England	2	-	-	-	-	-	-	-	-	2
India	-	5	-	-	-	-	-	-	-	5
Indonesia	-	5	-	-	-	-	-	-	-	5
Malaysia	-	4	-	-	-	-	-	-	-	4
Netherlands	1	-	2	-	-	-	-	-	-	3
Philippines	-	4	-	-	-	-	-	-	-	4
Rep of Seychelles	-	1	-	-	-	-	-	-	-	1
South Africa	-	1	-	-	-	-	-	-	-	1
Thailand	-	6	-	-	1	-	-	-	-	7
USA	2	1	-	-	-	-	-	-	-	3
West Germany	-	-	1	1	-	-	-	-	1	3
Total	87	80	29	30	22	29	16	5	6	314

Further to the above, much use was made of CIAT's Conference facilities by outside institutions: Asocaña, SENA, ICA, Catholic Relief Services, Unive. Ciudad del Valle, Planeación Nacional, CVC, Banana Exporting Countries, Fondo Ganadero, Técnicaña, for a total of 22 events.

TABLE 4.

PROFESSIONALS TRAINED AT CIAT DURING 1978 BY TRAINING CATEGORY, COUNTRY AND FIELD

<u>Name</u>	<u>Country</u>	<u>Program/Discipline</u>	<u>Months Training Completed as December 31, 1978</u>	<u>Status as December 31, 1978</u> (C= Completed) (P= Process)
<u>Visiting Research Associates</u>				
Arcia, Gustavo	Nicaragua	Beans/economics	2	P
Beebe, Esthepen	USA	Beans/production	5	C
Bernd, Anette	West Germany	Rice/plant breeding	5	C
Byrne, David	USA	Cassava/entomology	12	P
Clark, Anne	USA	Beans/physiology	12	C
Debouck, Daniel	Belgium	Beans/plant breeding	12	P
Delgadillo, Guido	Canada	Beef/pastures & forages breeding	12	P
Díaz, Jorge Luis	Nicaragua	Beef/pastures & forages utilization	12	P
Elango, Fritz	Cameroon	Cassava/plant pathology	8	P
Galwey, Nicholas	Unit. Kingdom	Beans/agronomy	9	C
García, Aurora Susana	Argentina	Beans/plant breeding	12	P
Gepts, Paul	Belgium	Beans/germplasm	4	P
Jansen, Hendrik	Holland	Beef/pastures & forages breeding	12	P
Jenrich, Herbert	West Germany	Beef/production	4	C
Laberry, Rafael	Peru	Cassava/plant pathology	12	P
Levine, Joel Martin	USA	Beef/economics	9	P
Lohr, Bernhard	West Germany	Cassava/entomology	7	P
Lyman, Judtih Mapes	USA	Beans/plant breeding	12	P
Plessow, Christoph	West Germany	Others/biometrics	5	C
Roldán, Diego	Colombia	Rice/economics	6	P
Sánchez, Luis Fernando	Argentina	Beef/soils science	12	P
Scholles, Dercio	Brazil	Beef/soils microbiology	2	C
Strosbosch, Peter Jan	Holland	Cassava/rural sociology	5	P

<u>Name</u>	<u>Country</u>	<u>Program/Discipline</u>	<u>Months Training Completed as of December 31, 1978</u>	<u>Status as of December 31, 1978</u> (C= Completed) (P= Process)
Veltkamp, Hendrik Jan	Holland	Cassava/plant physiology	4	P
White, Jeffrey	USA	Beans/plant physiology	12	P

Research Scholars

Alvarez, Germán	Colombia	Beans/plant pathology	12	P
Calvo, Favio Alberto	Colombia	Others/soils science	12	C
Cárdenas, Moisés	Mexico	Beans/plant pathology	1	C
Charry, Alvaro	Colombia	Beef/economics	5	C
De Cantillo, Stella	Colombia	Cassava/plant physiology	12	P
Galindo, José	Colombia	Beans/plant physiology	9	C
García, Edmundo	Colombia	Beans/plant breeding	5	C
García, Omar	Colombia	Beef/animal health	7	C
Gómez, William Felipe	Colombia	Beef/production	12	C
Madrugá, Claudio Roberto	Brazil	Beef/animal health	9	P
Moncada, Hemerson	Colombia	Beef/animal health	12	C
Peña, Jorge	Colombia	Cassava/entomology	12	P
Restrepo, Luis Fernando	Colombia	Beans/economics	12	P
Rolando, Carlos Xavier	Ecuador	Beef/pastures & forages utilization	3	P
Stabile, Martín Francisco	Argentina	Beans/economics	7	P

Postgraduate Research Interns

Barca, Edgar	Costa Rica	Beans/agronomy	3	C
Bacuña, José William	Ecuador	Beans/plant breeding	3	P
Beschlimann, Jorge Ewald	Chile	Beans/agronomy	4	C
Alberini, Joao Luiz	Brazil	Beans/plant breeding	2	C
Alvarez, Guillermo Arnoldo	Honduras	Beans/agronomy	6	C
Apollitano, César Artemio	Peru	Beans/plant breeding	3	C

Name	Country	Program/Discipline	Months training completed as of December 31, 1978	Status as of December 31, 1978
Araujo, Marco Antonio	Costa Rica	Beans/agronomy	3	P
Baruco, Camilo Augusto	Panama	Beans/plant pathology	3	C
Bonilla, Pastora	El Salvador	Cassava/plant pathology	4	C
Casco Eusebio	Honduras	Beans/crops association	5	C
Castro, Edmundo Ceferino	Ecuador	Rice/communication	4	C
Chiriboga, César	Ecuador	Beans/plant breeding	1	C
Ciotti, Elsa Mercedes	Argentina	Beef/pastures & forages breeding	12	C
Claire, Daniel	Bolivia	Others/laboratory management	3	C
Da Costa, Felix Antonio	Brazil	Beans/plant pathology	2	C
De la Cruz, Jesús Hipólito	Peru	Beans/plant breeding	3	P
De Souza, Lindaurea	Brazil	Beans/entomology	7	C
Demahachai, Panya	Thailand	Cassava/agronomy	9	C
Donzález, Rafael Darío	Dominican Rep	Beans/agronomy	4	C
Hammond, Samuel	Panama	Beef/soils microbiology	3	C
Hernández, Julio César	Nicaragua	Beans/entomology	3	P
Hernández, Luis Alfredo	Colombia	Others/station operations management	6	C
Hohmann, Celso Luiz	Brazil	Beans/entomology	6	C
Ino, Yoshiaki	Japan	Cassava/plant breeding	12	P
Jezama, Francisco	Honduras	Beans/entomology	3	C
Lachado, José	Brazil	Beans/plant pathology	3	C
Leñández, Oscar Edgardo	El Salvador	Beans/agronomy	5	C
Lora, Bernardo	Costa Rica	Beans/plant pathology	4	C
Matato, Nelson	Ecuador	Others/soils phosphate	2	C
Makavirojama, Chumpol	Thailand	Cassava/soils	9	C
Meto, Carlos Alberto	Ecuador	Beans/agronomy	3	C
Mogroho, Hardono	Indonesia	Cassava/agronomy	5	C
Miveira, Elias	Brazil	Beans/plant breeding	1	C
Moñez, Luis Factor	Guatemala	Beans/plant breeding	5	C
Moñez, Leonardo	Honduras	Beans/germplasm	4	C
Ortiz, Ruben	Panama	Beans/agronomy	3	C
Osaki, Flora	Brazil	Beef/biometrics	6	C
Recheco, Rafael	Venezuela	Beans/agronomy	4	C
Rino, José Angel	Cuba	Cassava/plant pathology	3	C
Rinzón, José	Ecuador	Beans/agronomy	5	C
Rosales, Tomás de Aquino	Brazil	Beans/plant pathology	4	C

<u>Name</u>	<u>Country</u>	<u>Program/Discipline</u>	<u>Months</u>	<u>Status</u>
Anda, Franklin Moisés	Bolivia	Others/station operations management	6	C
Antero, Edgar	Colombia	Beans/biometrics	3	C
Araya, Juan	Dominican Rep	Others/station operations management	6	C
Arriaga, Jesús Humberto	Mexico	Rice/plant breeding	3	P
Buato, Benjamín	Colombia	Beans/plant pathology	2	C
Buolveda, Héctor	Chile	Beans/agronomy	1	C
Cabrera, Eliton	Brazil	Others/station operations management	5	C
Chongsri, Somsak	Thailand	Cassava/plant breeding	9	C
Corrales, Justo Domingo	Honduras	Others/station operations management	6	C
Covilla, Claudio Hernán	Chile	Beans/crops association	4	C
Chiewcharnkit, Kasidit	Thailand	Swine/animal nutrition	2	C
Cerverde, Franklin	Ecuador	Others/soils phosphate	2	C
Cilavencio, Angel	Ecuador	Cassava/production	10	C
Chatananonta, Watana	Thailand	Cassava/plant physiology	9	C

Postgraduate Production Interns

Caunza, José Arkangel	Nicaragua	Beef/pastures & forages production	6	C
Caquirre, Luis	Bolivia	Beef/pastures & forages production	6	C
Cabrera, José Roberto	Chile	Rice/production	3	C
Cabrera, Mario	Bolivia	Swine/production	4	C
Cabrera, Antonio	Peru	Swine/production	4	C
Cabrera, Sabino	Bolivia	Swine/production	4	C
Costeigui, Miguel Horacio	Argentina	Rice/production	3	C
Craff, Jorge	Bolivia	Swine/production	4	C
Cruz, Oscar Rubén	Paraguay	Swine/production	1	C
Cruz, Usciel	Colombia	Beef/pastures & forages production	6	C
Cruz, Gabriel	Panama	Beef/pastures & forages production	6	C
Cruz, Alejandro	Peru	Swine/production	4	C
Cruz, Luis Lorenzo	Cuba	Rice/production	3	C
Cruz, Leandro Leon	Colombia	Swine/production	4	C

(C= Completed)
(P= Process)

Rivelli, Leopoldo	Honduras	Rice/production	4	C
Ruz, Francisco	Cuba	Rice/production	3	C
Ruesta, Pablo Antonio	Colombia	Beef/pastures & forages production	6	C
Ruque, Jairo	Colombia	Swine/production	4	C
Ruvala, Efraín	Colombia	Beef/pastures & forages production	6	C
Ruores, Adalberto	Venezuela	Beef/pastures & forages production	6	C
Ruavidia, Carlos Eusebio	Peru	Swine/production	4	C
Ruómez, Joel Francisco	Venezuela	Swine/production	4	C
Ruonzález, John Jairo	Colombia	Swine/production	4	C
Ruillen, Edgardo	Guatemala	Swine/production	4	C
Ruillen, Jorge Arturo	Costa Rica	Rice/production	4	C
Ruimaraes, Raimunedo Nonato	Brazil	Beef/pastures & forages production	6	C
Ruustino, Pedro Ubirajara	Brazil	Beef/pastures & forages production	6	C
Ruópez, Washington	Peru	Beef/pastures & forages production	6	C
Ruópez, Gonzalo	Mexico	Rice/production	5	C
Ruópez, Jorge Raul	Mexico	Swine/production	4	C
Ruarcolina, Luiz	Brazil	Swine/production	4	C
Ruascarenhas, Raimundo	Brazil	Rice/production	3	C
Ruauéndez, Juvenal	Cuba	Beef/pastures & forages production	6	C
Ruontás, Tomás Alfredo	Mexico	Rice/production	5	C
Ruoreno, Miguel Arturo	Ecuador	Rice/production	4	C
Ruorera, Jorge	Costa Rica	Rice/production	4	C
Ruochlmann, Luiz Danilo	Brazil	Beef/pastures & forages production	6	C
Ruovarrete, Franklin	Ecuador	Rice/production	6	C
Ruategón, Julián Faín	Colombia	Beef/pastures & forages production	6	C
Rurola, José Abilio	Peru	Rice/production	4	C
Rurrsi, Jorge Armando	Argentina	Swine/production	4	C
Rurrez, Alejandro	Paraguay	Swine/production	4	C
Rurredo, Luis Alberto	Peru	Beef/pastures & forages production	6	C
Rurssato, José Roberto	Brazil	Beef/pastures & forages production	6	C
Rurzo, Melvin	Bolivia	Rice/production	4	C
Rurros, Clide Edgardo	Peru	Rice/production	4	C
Rurátegui, Keneth	Peru	Beef/pastures & forages production	6	C
Rurngifo, Octavio	Colombia	Swine/production	4	C
Rurdríguez, John Kleber	Ecuador	Swine/production	4	C

<u>Name</u>	<u>Country</u>	<u>Program/Discipline</u>	<u>Months Training Completed as December 31, 1978</u>	<u>Status as December 31, 1978</u> (C= Completed) (P= Process)
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Short Course Participants

Abarca, Edgar	Costa Rica	Beans/production	1	C
Acuña, José William	Ecuador	Beans/production	1	C
Adam, Clifford	Seychelles Rep	Cassava/production	1	C
Agudelo, Orlando	Colombia	Beans/production	1	C
Aguilar, Roberto	Costa Rica	Cassava/production	1	C
Aquilera, Ciro	Bolivia	Cassava/production	1	C
Aquino, Jorge Alfonso	Mexico	Cassava/production	1	C
Almeida, Evandro	Brazil	Cassava/production	1	C
Alves, Valmiro	Brazil	Cassava/production	1	C
Alves, Pedro	Brazil	Cassava/production	1	C
Alves, Sebastiao	Brazil	Cassava/production	2	C
Angulo, Néstor	Colombia	Cassava/production	1	C
Apolitano, César	Peru	Beans/production	1	C
Araujo, Marco Antonio	Costa Rica	Beans/production	1	C
Argasmita, Muchtar	Indonesia	Beans/production	1	C
Arguello, Hernando	Colombia	Cassava/production	1	C
Asenjo, César Augusto	Peru	Others/seed production	1	C
Awe, Elias Ajib	Peru	Beans/production	1	C
Aya, Germán	Belize	Others/library and documentation	1	C
Balarezo, Sergio Raul	Colombia	Others/library and documentation	2	C
Barbosa, Eduardo	Ecuador	Beans/production	1	C
Barrios, Luis Mario	Brazil	Others/seed production	1	C
Barros, Luis Erasmo	Colombia	Cassava/production	1	C
Bartra, Ana	Chile	Others/seed production	1	C
Baruco, Camilo Augusto	Peru	Others/seed production	1	C
Bernardo, Emiliana	Panama	Others/library and documentation	2	C
Bertoli, Eduardo	Philippines	Beans/production	1	C
Bin Baharom, Baharuddin	Paraguay	Cassava/production	1	C
Borges, Lesbia	Malaysia	Others/seed production	1	C
Bravo, María Verónica	Venezuela	Cassava/production	1	C
Buenaño, Jorge	Venezuela	Beans/production	1	C
Bustamante, Guadalupe	Chile	Others/library and documentation	2	C
	Venezuela	Cassava/production	1	C
	Colombia	Others/library and documentation	2	C

Name

Country

Program/Discipline

Completed
December 31, 1978Status as of
December 31, 1978
(C= Completed)
(P= Process)

Name	Country	Program/Discipline	Completed December 31, 1978	Status as of December 31, 1978 (C= Completed) (P= Process)
Bravo, María Verónica	Chile	Others/library and documentation	2	C
Buenaño, Jorge	Venezuela	Cassava/production	1	C
Bustamante, Guadalupe	Colombia	Others/library and documentation	2	C
Caballero, Rene Carlos	Bolivia	Others/seed production	1	C
Candai, Joao	Brazil	Beans/production	1	C
Carcelen, Raul Aiberto	Ecuador	Cassava/production	1	C
Carnero, Felipe	Peru	Beans/production	1	C
Carvajal, Gastón	Bolivia	Others/seed production	1	C
Casco, Eusebio	Honduras	Beans/production	1	C
Castillo, Ceferino	Ecuador	Cassava/production	1	C
Castro, César Modesto	Colombia	Others/seed production	1	C
Chang-Yau, Vielka	Panama	Others/library and documentation	2	C
Chantanakom, Niyom	Thailand	Cassava/production	1	C
Checo, Andrea Maljori	Dominican Rep	Others/library and documentation	2	C
Chellamma, Mohankumar	Indian	Cassava/production	1	C
Chew Wee, Yong	Malaysia	Cassava/production	1	C
Cojulun, Rene Rolando	Guatemala	Beans/production	1	C
Cruz, Mario	Mexico	Cassava/production	1	C
Da Costa, Felix Antonio	Brazil	Beans/production	1	C
Da Silva, Corival	Brazil	Beans/production	1	C
Da Silva, Antonio	Brazil	Cassava/production	1	C
Dabien, Said	Cuba	Beans/production	1	C
Daphne, Paul	South Africa	Cassava/production	1	C
Dávila, Amilcar	Guatemala	Others/seed production	1	C
De Carvalho, Walbert	Brazil	Cassava/production	1	C
De la Torre, Jaime	Colombia	Cassava/production	1	C
De Lima, José Otavio	Brazil	Cassava/production	1	C
De Moraes, Osmar	Brazil	Cassava/production	1	C
De Oliveira, Sebastiao	Brazil	Cassava/production	1	C
De la Cruz, Jesús Hipólito	Peru	Beans/production	1	C
Delgadillo, José	Bolivia	Others/seed production	1	C
Dhiauddin, Jantan	Malaysia	Cassava/production	1	C
Díaz, Juan Leonel	Panamá	Cassava/production	1	C
Díaz, Arnulfo	Colombia	Others/seed production	1	C

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Wangpatra, Piya	Thailand	Cassava/production	1	C
Meñas, Juan José	Bolivia	Others/seed production	1	C
Moron, Carlos	Honduras	Beans/production	1	C
Scalada, Rodolfo	Philippines	Cassava/production	1	C
Spindola, Evaristo Antonio	Brazil	Beans/production	1	C
Torres, Juan Antonio	El Salvador	Others/library and documentation	2	C
Traser, Ronald	Guyana	Cassava/production	1	C
Urtado, Marcio José	Brazil	Cassava/production	1	C
Uonzález, Rafael Darío	Dominican Rep	Beans/production	1	C
Uonzález, Carlos	Colombia	Others/seed production	1	C
Uerra, Agnes Cristina	El Salvador	Others/library and documentation	2	C
Uutiérrez, Rosendo	Bolivia	Others/library and documentation	2	C
Uuzmán, Cayetano	Panama	Others/seed production	1	C
Uerazo, Fernando	Colombia	Cassava/production	1	C
Uermosilla, Jaime	Chile	Others/seed production	1	C
Uernández, Freddy	Guatemala	Beans/production	1	C
Uernández, Julio César	Nicaragua	Beans/production	1	C
Uim, Calixto	Panama	Others/seed production	1	C
Uarra, Ivan	Ecuador	Others/seed production	1	C
Ualdin, Jaime	Bolivia	Beans/production	1	C
Uunqueira, Arnaldo	Brazil	Beans/production	1	C
Uempff, Francisco	Bolivia	Beans/production	1	C
Uescuoflair, Marie-Ange	Costa Rica	Cassava/production	1	C
Uibreros Cilia	Colombia	Others/library and documentation	2	C
Uorenzi, Jose Osmar	Brazil	Cassava/production	1	C
Uozada, Jesús Efren	Colombia	Cassava/production	1	C
Uana, Julio Enrique	Argentina	Beans/production	1	C
Uana, José Moisés	Colombia	Cassava/production	1	C
Uancini, Simeone	Colombia	Beans/production	1	C
Uark, Joseph	Nicaragua	Cassava/production	1	C
Uartinez, Ildeberto	Guatemala	Others/seed production	1	C
Uartinez, Mirna	Venezuela	Cassava/production	1	C
Uartinotto, Valentim	Brazil	Beans/production	1	C
Uatheus, Luis Alberto	Venezuela	Cassava/production	1	C

Name

Country

Program/Discipline

Months training
completed as
December 31, 1978Status as
December 31, 1978
(C= Completed)
(P= Process)

Name	Country	Program/Discipline	Months training completed as December 31, 1978	Status as December 31, 1978 (C= Completed) (P= Process)
Mayacela, Celso Eduardo	Ecuador	Others/seed production	1	C
Medal, Julio César	Nicaragua	Beans/production	1	C
Menéndez, Oscar Edgardo	El Salvador	Beans/production	1	C
Molina, Mario Alberto	Costa Rica	Others/seed production	1	C
Mondardo, Euclides	Brazil	Cassava/production	1	C
Montilla, Bienvenido	Dominican Rep	Beans/production	1	C
Mora, Bernardo	Costa Rica	Beans/production	1	C
Morales, Palmira	Guatemala	Others/library and documentation	2	C
Morales, Salvador	El Salvador	Others/library and documentation	2	C
Moreira, Marco Aurelio	Costa Rica	Cassava/production	1	C
Moseley, Elio Partenio	Cuba	Others/seed production	1	C
Muñoz, Miguel Angel	Colombia	Beans/production	1	C
Muñoz, Tarquino Gilberto	Ecuador	Others/seed production	1	C
Murgas, Rafael	Colombia	Beans/production	1	C
Muthukumara, Thankappan	Indian	Cassava/production	1	C
Navarro, Francisco	Mexico	Beans/production	1	C
Nunes, Joao Licinio	Brazil	Cassava/production	1	C
Nunes, Alba Rejane	Brazil	Cassava/production	1	C
Ochoa, Francisco	Mexico	Cassava/production	1	C
Oliveira, Elias	Brazil	Beans/production	1	C
Ordoñez, Leonardo	Honduras	Beans/production	1	C
Ordoñez, Luis Factor	Guatemala	Beans/production	1	C
Orellana, Silvestre	Guatemala	Beans/production	1	C
Ortiz, Ruben	Panama	Beans/production	1	C
Pacheco, Rafael	Venezuela	Beans/production	1	C
Palomar, Manuel	Philippines	Cassava/production	1	C
Peairs, Frank	Honduras	Beans/production	1	C
Pereira, Joao Eduardo	Brazil	Cassava/production	1	C
Perim, Sirval	Brazil	Cassava/production	1	C
Pinzón, José	Ecuador	Beans/production	1	C
Placido, Dirceu	Brazil	Beans/production	1	C
Ponjuan, Gloria Irene	Cuba	Others/library and documentation	2	C
Portes, Tomás de Aquino	Brazil	Beans/production	1	C
Puga, Bernardo	Panama	Others/seed production	1	C

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Rajendran, Patterimadom	Indian	Cassava/production	1	C
Ramírez, Alonso	Colombia	Cassava/production	1	C
Ribeiro, Leda Goes	Brazil	Others/library and documentation	2	C
Ribeiro, Jairo	Brazil	Cassava/production	1	C
Ríos, Manuel José	Colombia	Beans/production	1	C
Rivera, Rene	Cuba	Beans/production	1	C
Rodríguez, Sergio Juan	Cuba	Cassava/production	1	C
Rosario, Maritza	Dominican Rep	Beans/production	1	C
Sadasivam, Pillai	Indian	Cassava/production	1	C
Sánchez, Elio Menandro	Dominican Rep	Others/seed production	1	C
Segura, Luis	Costa Rica	Cassava/production	1	C
Sepúlveda, Héctor	Chile	Beans/production	1	C
Silva, Carlos Arturo	Colombia	Others/seed production	1	C
Silva, Antonio	Brazil	Cassava/production	1	C
Silveira, Pedro	Brazil	Beans/production	1	C
Smith, José	Belize	Beans/production	1	C
Soenaryo, Roberto	Indonesia	Cassava/production	1	C
Solórzano, Alfredo	Peru	Cassava/production	2	C
Speroni, Julia Hebe	Argentina	Others/library and documentation	2	C
Stewart, Brenda	Guyana	Cassava/production	1	C
Suárez, Miguel Arturo	Colombia	Others/seed production	1	C
Tamin, Senawi	Malaysia	Cassava/production	1	C
Tassinari, Gilberto	Brazil	Cassava/production	1	C
Taveras, Máximo Alfonso	Dominican Rep	Others/seed production	1	C
Then, José Francisco	Dominican Rep	Cassava/production	1	C
Thirumalai, Ramanujan	Indian	Cassava/production	1	C
Torres, Heloisa	Brazil	Beans/production	1	C
Torres, Mario Fidel	Guatemala	Others/seed production	1	C
Ugas, Fernando Dionisio	Chile	Beans/production	1	C
Urdanivia, Renzo Leoncio	Peru	Beans/production	1	C
Vallejo, Guillermo	Colombia	Cassava/production	1	C
Vieira, Balbino	Brazil	Cassava/production	1	C
Viera, Otoniel	Honduras	Others/seed production	1	C
Villanueva, Marianito	Philippines	Cassava/production	1	C

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Voss, Marcio	Brazil	Beans/production	1	C
Westphalen, Sergio Luiz	Brazil	Beans/production	1	C
Williams, Darwin	Trinidad and Tobago	Cassava/production	1	C
Wiroatmodjo, Joedojono	Indonesia	Cassava/production	1	C
Zelaya, Nelson Arnulfo	Honduras	Beans/production	1	C
Zerega, Luis Oswaldo	Venezuela	Beans/production	1	C

POSTDOCTORAL FELLOWS AT CIAT DURING 1978 BY COUNTRY AND FIELD

Calderón, Mario	Colombia	Beef/entomology	12	P
Cardona, César	Colombia	Beans/entomology	7	P
Davis, Jeremy	United Kingdom	Beans/plant breeding	9	C
Hegewald, Bood	West Germany	Others/special studies unit	8	P
Hershey, Clair	USA	Cassava/plant breeding	6	P
Jones, Peter	Australia	Beans/physiology	12	P
Lenne, Jill Marrie	Australia	Beef/soils microbiology	6	P
Lynam, John	USA	Cassava/economics	7	C
Mendoza, Gastón	Peru	Others/biometrics	9	C
Morales, Francisco	Colombia	Beans/plant pathology	6	P
Reyes, Jesús	Colombia	Cassava/entomology	10	P
Rubinstein, Eugenia	Chile	Beef/animal health	12	P
Swindell, Richard	USA	Beans/production	2	C
Thung, Michael	Indonesia	Cassava/plant physiology	1	C

MAIN EVENTS TAKEN PLACE IN CIAT CONFERENCE FACILITIES IN 1978

<u>Date</u>	<u>Name of event</u>	<u>No. participants</u>
<u>Scientific interchange events sponsored or co-sponsored by CIAT</u>		
16-19 January	Workshop on International Bean Breeding Trials in Latin America	54
11-14 April	Workshop on Coordinating and Planning for the Collection, Preservation, Distribution and Characterization of Germplasm Resources of Tropical Forages	115
17-20 April	Seminar on the Production and Utilization of Forages in Tropical Acid and Infertile Soils	185
25-27 April	Workshop on Cassava Harvesting and Processing	21
1-3 November	Workshop on Documentation Systems in Agricultural Economics and Rural Development in Latin America	21
<u>National and international events to organize activities with CIAT participants</u>		
20 January	ICA-CIAT Phytosanitary controls	20
8-10 May	Seminar on Advances in Research at CIAT	100
1-2 December	Special UNDP/CIAT Project Advisory Committee	12
11-15 December	Internal Program Reviews	80
<u>Training courses</u>		
14 Jan.-13 Feb.	Cassava Short Course for Asians	31
30 Jan.-3 March	Bean Production Short Course	30
27 Feb.-15 Nov.	Rice Production Course	10
3-30 May	Cassava Intensive Course	48
26 June-30 Nov.	Pasture Management Course	21

<u>Date</u>	<u>Name of events</u>	<u>No. participants</u>
<u>Training courses</u>		
3 July-3 August	Documentation Short Course	16
17 July-17 Nov.	Swine Production Course	20
21 August-22 Sept.	Bean Production Short Course	34
25 Sept.-6 Oct.	ICA-CIAT Rice Production Short Course	25
October (4 days)	Statistical Analysis System Course	104
9-11 October	Bean Program Advisory Committee Meeting	6
6 Nov.-1 Dec.	Seed Technology Short Course	29
<u>Non-CIAT events</u>		
13-17 February	Union of Banana Exporting Countries - First Meeting on Coordinated Research Program	44
22-24 February	Fondo Ganadero del Valle - Utilization of Agricultural Sub-products for Animal Feed	120
29-30 March	ASOCANA - Sugar Cane Harvesting	70
7-9 June	Meeting of ICA Regional Directors	40
24-31 July	Regional Meeting Catholic Relief Services	62
11-12 August	Association Veterinary Aviculture Spe- cialists - Incubation	110
14-18 August	UNIVALLE/Harvard School Medicine - Medical Education and Curriculum	40
6-8 September	Annual Meeting of ICA Parasitologists	15
8-10 November	TECNICARA - Water-Soil-Plant Relationship	100