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	B. SECONDARY Agriculture--Weeds	

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 Weed control in less developed countries; semi-annual progress report, July-Dec. 1970

3. AUTHOR(S)
 (101) Or. State Univ. Int. Plant Protection Center

4. DOCUMENT DATE 1971	5. NUMBER OF PAGES 9p.	6. ARC NUMBER ARC
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7. REFERENCE ORGANIZATION NAME AND ADDRESS
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8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)
 (Research summary)

9. ABSTRACT

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SEMI-ANNUAL REPORT USAID/OSU WEED CONTROL PROJECT

July 1 thru
December 31 1970

- 1 Report text
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USAID/Oregon State University
Regional Contract AID/csd-1442
"Weed control in less developed countries"

1

Report text

Project in lowlands of Ecuador and Panama completes first

full six months

Fifteen weed control research trials have been established on four experiment stations in the lowlands of Ecuador since July 1970. Rice and corn have received the major emphasis in field research.

Other activities underway include: work on pasture establishment and the conversion of banana plantations to pasture; weed control research conducted both in direct-seeded and transplanted rice cultures; and a cost analysis study of weed control methods in cacao.

The program in Panama has expanded with the cooperation of the University of Panama and the Ministry of Agriculture. A total of eight research trials are in progress at four stations with efforts since July concentrated on rice, corn, beans and horticultural crops. Research activities have included competition studies and study of herbicides as potential control measures.

Weed control research underway in six Central American countries

In addition to Panama research has been established in El Salvador, Costa Rica, Nicaragua, Guatemala and Honduras with programs under the supervision of counterparts either trained by, or cooperating with, the project.

The rapid development of research programs has been made possible through the willing cooperation and tangible interest of the host country research organizations. In most cases, students have also become interested and are now involved with weed control studies in some of the region's economically important crops.

Field days used to stimulate awareness and interest in weed control

A series of well received field days has been used to provide experience and education for agronomists and other professional workers, farmers and students. Ninety-five people attended the first field day held at San Andres in El Salvador. Weed control research in rice, beans, corn and sorghum was reviewed by the administrative and research staff of the station and a demonstration given in handling and use of spray equipment.

Weed control in melons was introduced as an integral part of a production field day for melon farmers. The event, sponsored by DGIEA (Salvadorean agricultural research organization), was well attended by farmers.

Students attended another field day at San Andres to receive explanations of weed control principles and herbicide selectivity. Demonstrations in proper, safe use of weed control equipment were also presented.

Latin American Weed Society formed

During the November 1970 meetings of the Latin American Agronomy Society (ALAF) weed control researchers representing eight Latin American nations met and established ALAM (the Latin American Weed Society).

All three regional AID/OSU project leaders were present and actively participated in the formation of ALAM. Ernesto Navarette, weed control research counterpart from El Salvador, presented two papers during the ALAF meetings.

Countries joining ALAM were: Argentina, Chile, Colombia, Ecuador, El Salvador, Mexico, Panama and Peru. The Society's first meeting is scheduled for November 15-17, 1971, in Mexico City. Already more than 90 paid memberships at \$5.00 annual dues have been received. A Latin American Weed Science Journal will be a major activity of the new organization with the first volume due in time for the annual meeting. Dr. Juan Cardenas of the OSU/AID contract was selected as editor.

Weed control research assistance for Peru

At the request of the North Carolina State University Mission in Peru, Dr. Juan Cardenas (OSU/AID project leader in Colombia) undertook a two-week visit to review weed problems and weed control research underway on rice in Peru.

Great similarity was observed between weed problems in Peru and those in both Colombia and Ecuador, not only in rice, but in all of the areas visited during the trip. An active program of information exchange between the three programs has been recommended as well as specific suggestions for the Peruvian program.

Joint poisonous weed control program initiated in Colombia

The first specific weed species control program has been initiated through a joint effort of the Animal Husbandry/ Plant Physiology Departments of ICA (Instituto Colombiano Agropecuario) and the Banco Ganadero.

The campaign is being directed towards the control of cansaviejo (*Miscanthus concinna*), a poisonous weed species responsible for the death or affliction of over 15,000 head of cattle in the Atlantic Coast region. Efforts are being made to provide farmers with adequate identification and control method information for this weed.

Counterpart training continues in Colombia/Ecuador

The program currently works with two counterparts with MS degrees while a third man continues in an MS program in the U.S. Four other candidates are preparing to undertake MS programs and two PhD degree work.

Relative self-sufficiency has been attained at two research stations in Colombia which also now serve as training centers for new counterparts. A contributing factor to increased competence has been a very low turnover in personnel, allowing for accumulation of experience.

Two counterparts trained in Colombia have returned to direct weed control research in Ecuador (highlands and lowlands). Two other men have now been assigned to the project in Colombia for training and when they return to Ecuador, the first two counterparts will travel abroad for advanced degrees.

Colombian weed control publications program gains momentum

More publications (11) were released during the last six months of 1970 than during the entire previous project life (10). The latest group included fact sheets dealing with control of specific, economically important weeds and weed control in key Colombian crops.

In addition to the 11 publications released, 12 more are in preparation and research is being conducted and material gathered for approximately 11 other publications.

Briefs on other activities of the project during July-December

..... The associate project director presented two reports and otherwise assisted at the East African Weed Control meeting in Tanzania worldwide response to the first printing of EXPERIMENTAL HERBICIDES, STATUS REPORT BY CROP continued strong; the supply of 300 copies was exhausted and plans have been formulated for a revised printing in March 1971 an article on the project's electronic data processing system for weed control research was featured in the November issue of AID's War on Hunger magazine further effort was devoted to major publications now nearing completion: HERBICIDE USE AND NOMENCLATURE INDEX ("HUNI") and WEED CONTROL RESEARCH METHODS MANUAL.

2 Publications list (OSU/AID Colombia and ICA)

Published prior to July 1, 1970

1. Clasificación de Herbicidas
2. Catálogo de Malezas del Tolima Sur
3. Malezas de Clima Frío
4. Precauciones para el Uso de Herbicidas
5. Herbicidas Comerciales Clasificados de Acuerdo a su Toxicidad
6. Control de Malezas en Maíz
7. Control de Malezas en Sorgo
8. Control de Malezas en Banano Establecido
9. El Kikuyo y su Control
10. Calibración de Aspersoras Terrestres

Published between July 1 and December 31, 1970

1. Control de Malezas en Ajonjolí (H.D. 007)
2. Control de Malezas en Maní (H.D. 008)
3. Control de Malezas en Algodón (H.D. 009)
4. Control de Malezas en Soya y Frijol (H.D. 010)
5. El Cadillo Falso - una nueva maleza (H.D. 012)
6. Consideraciones Fitosanitarias sobre las Malezas.
Tech. article in Agricultura Tropical (Colombia)
Vol. 26(4):189-193, 1970
7. Clasificación de Malezas de Clima Frío de Acuerdo a su Importancia Económica. Tech. article in Agricultura Tropical Vol. 26(7):511-516, 1970
8. Manual de Terminología 2a Edición. COMALFI
9. Problemas de Malezas en Sistemas de Riego INCORA/ICA
32 p.
10. Control de Malezas en Potreros (BT 003)
11. Problemas del Buchón (*Eichhornia crassipes* (Mart.) Solm.) y su Control en el Distrito de Riego de Saldaña

Publications currently in preparation

1. El Salvi6n y la Salvia y su Control (H.D. 011)
2. El Buch6n (*Eichhornia crassipes*) y su Control (H.D. 013)
3. Crop Losses due to Weeds (Weeds Today)
4. Semillas de Malezas de Clima Frío (BT)
5. El Cansaviejo (*Muscagnia concinna*) y su Control
6. Selectividad y Fisiología de Acci6n de los Herbicidas
(Chapter in a Crop Physiology book)
7. La Avena Negra (*Avena fatua*) y su Control
8. Control de Malezas en Arroz de Riego
9. Control de Malezas en Cítricos
10. El Coquito (*Cyperus rotundus*) y su Control
11. La Caminadora (*Rottboelia exaltata*) y su Control
12. Tropical Weeds, Vol. I

Research being conducted and material gathered for future publications

1. Control de Malezas en Caña de Azucar
2. Catálogo de Semillas de Malezas Tropicales, Vol. I
3. Catálogo de Malezas Acuáticas
4. Malezas de Clima Frío. Vol. II
5. Control de Malezas en Trigo y Cebada
6. El Espino (*Pithecellobium lanceolatum*) y su Control
7. Control de Malezas en Papa
8. Control de Malezas en Zanahoria
9. La Lengua de Vaca (*Rumex crispus*) y su Control
10. La Margarita (*Chrysanthemum leucanthemum*) y su Control
11. Semillas de Malezas Tropicales, Vol. II

3 Budget

BUDGET ESTIMATE As of December 31, 1970

<u>Classification</u>	<u>Paid 4-1-70 to 12-31-70</u>	<u>Estimated Costs to 3-31-71</u>
Salaries and Wages	\$136,704.67	\$ 44,158.78
Payroll Assessments	12,303.40	3,974.29
Indirect Costs		
On-campus	37,540.38	11,860.28
Off-campus	8,341.12	2,848.45
Total	(45,881.50)	(14,708.73)
Non-expendable Equipment	1,800.00	--
Expendable Equipment	12,178.20	2,857.81
Travel and Allowances	28,653.87	13,325.05
Other Direct Costs	5,490.69	1,795.37
Consultants	--	--
Sub-contracts		
U. of Wisconsin	4,660.87	3,700.71
U. of Hawaii	335.62	14,664.38
Totals	\$248,008.82	\$ 99,185.12

<u>Est. Total 4-1-70 to 3-31-71 (12 months)</u>	<u>Est. Budget 4-1-71 to 6-30-71 (3 months)</u>	<u>Projected Budget 7-1-71 to 6-30-72</u>
\$180,863.45	\$ 44,158.78	\$191,872.00
16,277.69	4,415.88	23,348.00
49,400.66	14,850.32	67,820.00
11,189.57	4,402.16	17,691.00
(60,590.23)	(19,252.48)	(85,511.00)
1,800.00	1,550.00	6,200.00
15,036.01	6,140.00	24,557.00
41,978.92	10,812.00	43,250.00
7,286.06	2,962.00	11,850.00
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8,361.58	--	--
15,000.00	--	15,000.00
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\$347,193.94	\$ 89,291.14	\$404,088.00