

#8

SCHOOL/FAMILY GARDEN PROGRAMQUARTERLY REPORTI. Program Hypotheses and Objectives

CARE, AID and the Ministries of Interior and Education believe that although the rural poor in Chile face severe developmental problems, appropriate agricultural and applied nutrition practices will allow the average small farm family (10 hectares or less) to reach an acceptable level of self-sufficiency. The purpose of this OPG Program Grant is to improve nutritional intake and habits as well as the agricultural skills of poor rural primary students and their families via the introduction of the School/Family Garden Program to Chile's IV, VI, VIII, IX and X Regions.

The specific objectives of the grant are as follows:

1. To establish 1,100 school and community gardens.
2. To provide nutrition training to 60,000 rural primary school students and to a minimum of 8,000 rural families.
3. To assist at least 8,000 families in establishing home gardens.
4. To provide supplemental rations from food grown in the school and community gardens to at least 40,000 students.

II. Program Activities

The following is a summary of the progress made in fulfilling these goals as reflected in the program activities of the OPG grant:

1. Purchasing of seeds, fertilizer, materials, tools and and equipment for 1,100 school and community gardens.

As of August 30, 1979, CARE has purchased and delivered tools, seed, fertilizer and fencing totalling US \$51,807.39 as indicated in the following list:

Tools

AID 1st Trimester Budget	50,000.00
Expenditures	<u>41,122.15</u>
Balance	8,877.85

Seed

AID 1st Trimester Budget	13,333.00
Expenditures	<u>6,193.31</u>
Balance	7,139.69

Fencing

CARE 1st Trimester Budget	3,333.00
Expenditures	<u>3,082.72</u>
Balance	250.28

Fertilizer  
(Chemical)

CARE 1st Trimester Budget	7,000.00
Expenditures	<u>3,045.39</u>
Balance	3,954.61

These materials and equipment were purchased and distributed (except for the VIII Region purchases which will be made in September), for the following number of schools in the IV, VI, VIII, IX and X Regions as indicated below. The remaining schools will be incorporated in the second stage of the program.

	<u>IV</u>	<u>VI</u>	<u>VIII</u>	<u>IX</u>	<u>X</u>	<u>TOTAL</u>
1st Stage						
5/1/79-9/31/79	50	220	60	180	160	670
2nd Stage						
10/1/79-5/1/79	150	-	160	60	60	<u>430</u>
TOTAL						1100

The list of specific schools selected in each region will be kept in CARE files for future audits. All participating schools will be equipped with the following standard tool sets as listed below and illustrated in picture #1:

- 1 Large Pitchfork
- 1 Small Pitchfork
- 2 Hoes
- 1 Hoe with Pic
- 2 Rakes
- 1 Spaded Shovel
- 1 Saw
- 1 Hammer
- 2 Sets of hand tools (trowel, small spade and rake)
- 1 Pair of pruning shears (to be issued in phase 2)

The seeds selected will also supply essential vitamins and minerals which are deficient in the diet of rural Chileans. The variety of seed will allow for year-round garden production. Although the seed provided has varied due to regional climatic differences and dietary preferences, the following list is representative of the fruits and vegetables which will be planted in an average school garden:

- |             |          |
|-------------|----------|
| Lima Beans  | Apples   |
| Peas        | Peaches  |
| Lettuce     | Cherries |
| Beets       | Lemons   |
| Carrots     | Oranges  |
| Cabbage     |          |
| Kale        |          |
| Onions      |          |
| Radishes    |          |
| Chicory     |          |
| Celery      |          |
| Green Beans |          |
| Potatoes    |          |
| Tomatoes    |          |
| Parsley     |          |
| Coriander   |          |

Provincial greenhouse/seed beds will be initiated in all participating provinces to assure the continued availability of seed for future program needs. These greenhouse/seedbeds will be self-sufficient after completion of the program (See pictures 4, 5 and 6 at the end of the report).

Rabbits and bees will be introduced in October, once the gardens are under cultivation.

The tools, seeds, fertilizer and fencing provided by CARE will be complemented by materials and equipment donated by the public and private sectors of the communities involved in the program. For example, the School/Family Garden Program has already received a donation of 20,000 fruit trees from a philanthropist in the IV Region and Bayer Chemical Company has agreed to donate insecticides. All of the participating schools will seek assistance from their respective PTA groups.

All equipment and materials were purchased after need assessment and site selection studies were conducted in each region by the Ministry of Education in conjunction with CARE. Schools were selected on the basis of need, adequate natural resources and proximity to technical assistance from the Ministry of Education.

The tools selected were judged on their appropriateness for student use (size and shape), practicability for gardening and small animal breeding activities, and use in the garden curriculum which will be similar to the VII Region Curriculum illustrated in Appendix 2. Since tool handles in Chile are of inferior quality and overly expensive (usually 1/3 of the total price), tools were bought without handles. Students will learn to make the handles themselves, thus allowing them to save one third of the cost of any tools they purchase in the future. (See picture #2).

Natural fencing (as shown in picture #3) will be used wherever possible.

All equipment and materials were purchased through a competitive bidding system and all bids have been kept on file in CARE/Chile's Santiago office. All items purchased were delivered under the conditions set forth in the delivery control, letters of receipt and inventory forms (See Appendix #1). As indicated in the delivery form, 10% of all seed, fertilizer and small animals will be used in home gardens.

II.2. Preparation of a National School Garden Curriculum in Collaboration with the Ministry of Education.

At present, the Ministry of Education has named a team of curriculum development experts to study the appropriate curriculum needs of all participating regions. The Superintendent of the Ministry of Education will meet with the CARE School/Family Garden Project Director in September to inform us of their progress.

The resulting curriculum is expected to be patterned closely after the VII Region Curriculum which was developed and implemented last year during the CARE/Ministry of Education Pilot Program. This curriculum, which is designed for students from third to eighth grade, is included in the report as Appendix #2.

II.3. Initiate a Teacher Training Program with the Ministry of Education.

The key to the success of this program lies in the proper initial and long-term training of the rural

garden teacher/monitors in participating schools. Many rural primary school teachers are from urban areas. Those who do come from rural sectors possess traditional concepts concerning gardening which inhibit the proper implementation of a gardening/nutrition curriculum based on low cost, year-round intensive gardening methods.

The Minister of Education (Señor Gonzalo Vial) realizes the importance of properly training school garden monitors and has requested SNCE (Servicio Nacional de Capacitación y Empleo) to reserve the necessary training scholarships (1,100) to afford participating teacher/monitors with the opportunity to receive 60 to 80 hours of initial training in gardening and basic nutrition through INACAP, IER, CONIN, and other Chilean training organizations. SNCE has awarded the following scholarships for calendar years 1979 and 1980:

YEAR	IV	VI	VIII	IX	X	TOTAL
	(INACAP)	(INACAP)	(INACAP) (IER)	(INACAP) (IER)	(INACAP)	
1979	50	220	60	80	100	510
1980	150	100	160	140	200	<u>750</u>
TOTAL						1,260

The Basic gardening course will be taught by INACAP, an institution with solid experience in the field, which has developed an excellent training manual (See Appendix #3). The course will cover site selection and garden planning, planting directly from seeds and from seed beds, cultivation, irrigation, pest control and fertilizing. The

scholarships for nutrition will be programmed by 9/18/79 and will be conducted by CONIN which has developed an extensive curriculum in nutrition training (See Appendix #4):

In addition to these outside training organizations, Ministry of Education technicians and the CARE Regional Garden Coordinators will also train teacher/monitors.

After initial training, continued training and supervision will be offered by the Ministry of Education, CARE, the SNS, INACAP and other collaborating volunteer agency personnel such as the Peace Corps and Diakonia.

At present, full-time teacher training and technical support personnel in all participating regions is as follows (the personnel resources of the VIII Region will be included in the plan by 9/21/79):

IV Region

- 1 CARE Regional Coordinator
- 1 MOE Regional Coordinator
- 3 MOE Agricultural Technicians

VI Region

- 1 CARE Regional Coordinator
- 1 MOE Regional Coordinator
- 13 MOE Agricultural Technicians
- 6 PCV's (to arrive in November)

IX Region

- 1 CARE Regional Coordinator
- 1 MOE Regional Coordinator
- 3 MOE Agricultural Technicians
- 5 Diakonia Agricultural Technicians
- 5 Diakonia Home Extensionists
- (30 SNS health extensionists part-time)

X Region

- 1 CARE Regional Coordinator
- 1 MOE Regional Coordinator
- 18 MOE Agricultural Technicians
- (30 SNS health extensionists part-time)

In addition to the formal teacher training, teacher/monitors will be encouraged to read the *Informador Agrícola* which is published weekly by *La Tercera*, a local newspaper. The *Informador* includes school/family garden information written under an agreement with the MOE. Sample articles from the *Informador* are included on pages 4, 5 and 6 at the end of this report.

II.4. Establish School/Family Garden Committees as Sub-committees of the PTA Organizations in each Participating School.

These clubs are being formed in all participating schools and a list of clubs formed will be submitted to CARE by all regions before 11/1/79.

II.5. Carry Out Training Programs for Students and Family Members in Home Gardening and the Establishment of 8000 Home Gardens.

The initiation of the home gardening program component will begin in November after the school demonstration gardens have been established. It is anticipated that every school garden planted will serve as a demonstration plot for the teachers, SNS extensionists, INACAP, IER and Diakonia personnel who will train and monitor families who wish to initiate gardens. All Regions will present a formalized home garden plan to CARE by 11/1/79.

III. Operational and Evaluative Tools

All participating schools will be visited at least quarterly by personnel listed in section III.3. and families involved in the program will be visited by teacher/monitors, SNS

extensionists, and/or other personnel. In all cases, a dietary profile questionnaire and the garden supervisory and evaluative form will be filled out quarterly to insure adequate operational visits by trained personnel and formal quarterly evaluation data. This evaluative data will serve as a basis for quarterly evaluations which will be submitted to AID in November, February and May. (See Appendix #5).