

PD-ADF-928  
Agency for International Development  
Washington, D.C. 20523

936-4200  
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September 30, 1991

Mr. Patrick E. McGuire  
Assistant Director  
Genetic Resources Conservation Program  
University of California  
Davis, CA 95616

Subject: Grant No. DAN-4200-G-00-1124-00

Dear Mr. McGuire:

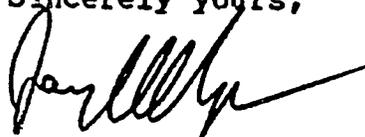
Pursuant to the authority contained in the Foreign Assistance Act of 1961 and the Federal Grant and Cooperative Agreement Act of 1982, as amended, the Agency for International Development (hereinafter referred to as "A.I.D.") hereby provides to the University of California-Davis (hereinafter referred to as "UC-D" or "Grantee") the sum set forth in Section 1C.2. of Attachment 1 of this Grant to provide financial support for the program described in Attachment 2 of this Grant entitled "Program Description."

This Grant is effective as of the date of this letter and funds obligated hereunder shall be used to reimburse the Grantee for allowable program expenditures for the period set forth in Section 1B. of Attachment 1 of this Grant.

This Grant is made to the Grantee on the condition that the funds will be administered in accordance with the terms and conditions as set forth in the attachments listed under my signature below, which together constitute the entire Grant document and have been agreed to by your organization.

Please acknowledge receipt and acceptance of this Grant by signing all copies of this Cover Letter, retaining one copy for your files, and returning the remaining copies to the undersigned.

Sincerely yours,



Jay M. Bergman  
Grant Officer  
Chief, Food and Agriculture Branch  
A.I.D./W Projects Division  
Office of Procurement

Attachments:

1. Schedule
2. Program Description
3. Standard Provisions
4. Special Provision entitled "Restrictions on Lobbying"

ACKNOWLEDGED:

University of California -Davis

BY: *Dorothy Greene Crocker*

TYPED NAME: Dorothy Greene Crocker

TITLE: Director of Sponsored Programs

DATE: NOV 14 1991

FISCAL DATA

A. GENERAL

- A.1. Total Estimated A.I.D. Amount: \$233,463
- A.2. Total Obligated A.I.D. Amount: \$233,463
- A.3. Cost-Sharing Amount (Non-Federal): \$387,183
- A.4. Project No.: 936-4200
- A.6. A.I.D. Project Office: S&T/AGR/AP, J. Cohen
- A.7. Funding Source: A.I.D./W
- A.8. Tax I.D. No.: 946036 494 W
- A.9. DUNS No.: 04-712-0084
- A.10. LOC No.: 72-00-1363

B. SPECIFIC

- B.1.(a) PIO/T No.: 936-4200-1361457
- B.1.(b) Appropriation: 72-1111021.3
- B.1.(c) Allotment: 143-36-099-01-20-11
- B.1.(d) BPC: DDNA-91-13600-IG11
- B.1.(e) Amount: \$233,463

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ATTACHMENT 1

SCHEDULE

**1A. PURPOSE OF GRANT**

The purpose of this Grant is to provide financial support for the program described in Attachment 2 of this Grant entitled "Program Description."

**1B. PERIOD OF GRANT**

The effective date of this Grant is the date of the Cover Letter and the estimated completion date is January 30, 1993. Funds obligated hereunder (see Section 1C.2. below) shall be used to reimburse the Grantee for allowable program expenditures incurred by the Grantee in pursuit of program objectives during such period. Funds obligated hereunder are anticipated to be sufficient for completion by the Grantee of the program described in Attachment 2 of this Grant by the estimated completion date.

**1C. AMOUNT OF GRANT AND PAYMENT**

1C.1. The total estimated amount of this Grant for its full period, as set forth in Section 1B. above, is \$233,463.

1C.2. A.I.D. hereby obligates the amount of \$233,463 for the purposes of this Grant during the indicated period set forth in Section 1B. above, thereby fulfilling A.I.D.'s funding requirements. A.I.D. shall not be liable for reimbursing the Grantee for any costs in excess of the obligated amount, except as specified in paragraph (f) of the Standard Provision of this Grant entitled "Revision of Grant Budget."

1C.3. Payment shall be made to the Grantee in accordance with procedures set forth in the Standard Provision of this Grant entitled "Payment - Letter of Credit," as shown in Attachment 3.

1C.4. The total estimated amount of the program described in Attachment 2 of this Grant is \$620,646, of which A.I.D. may provide the amount specified in Section 1C.1. above, and the Grantee will provide \$387,183 in accordance with Section 1L. below.

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**1D. GRANT BUDGET**

1D.1. The following is the Budget for the total estimated amount of this Grant (see Section 1C.1. above) for its full period (see Section 1B. above). The Grantee may not exceed the total estimated amount or the obligated amount of this Grant, whichever is less (see Sections 1C.1. and 1C.2., respectively, above). Except as specified in the Standard Provision of this Grant entitled "Revision of Grant Budget," as shown in Attachment 3, the Grantee may adjust line item amounts as may be reasonably necessary for the attainment of program objectives. Revisions to the budget shall be in accordance with Section 1C. above and the Standard Provisions entitled "Revision of Grant Budget" and "Cost Sharing (Matching)."

1D.2. Budget

<u>Cost Element</u>	<u>A.I.D.</u>	<u>Grantee/ Others (Non-Fed)</u>	<u>Total</u>
Salaries and Fringe	\$ 49,637	\$ 12,900	\$ 62,537
Travel, Transportation and Per Diem	12,968	-0-	12,968
Other Direct Costs	6,225	6,290	12,515
Participant Training	139,815	341,280	481,095
Indirect Costs	<u>24,818</u>	<u>7,523</u>	<u>32,341</u>
<b>TOTAL</b>	<b>\$233,463</b>	<b>\$387,183</b>	<b>\$620,646</b>

1D.3. Inclusion of any cost in the budget of this Grant does not obviate the requirement for prior approval by the Grant Officer of cost items designated as requiring prior approval by the applicable cost principles (see the Standard Provision of this Grant set forth in Attachment 3 entitled "Allowable Costs") and other terms and conditions of this Grant, unless specifically stated in Section 1I. below.

**1E. REPORTING**

**1E.1. Financial Reporting**

1E.1.(a) Financial reporting requirements shall be in accordance with the Standard Provision of this Grant entitled "Payment - Letter of Credit," as shown in Attachment 3.

1E.1.(b) All financial reports shall be submitted to A.I.D., Office of Financial Management, PFM/FM/CMPD/DCB, Room 700 SA-2, Washington, D.C. 20523-0209. In addition, three copies of all financial reports shall be submitted to the A.I.D. Project Office specified in the Cover Letter of this Grant, concurrently with submission of the Quarterly Technical Reports (See Section 1E.2. below).

**1E.1.(c)** The frequency of financial reporting and the due dates of reports shall be as specified in the Standard Provision of this Grant referred to in Section 1E.1.(a) above.

**1E.1.(d)** The Grantee's financial reports shall include expenditures of A.I.D. Grant funds provided hereunder, as well as non-federal matching funds and any other contributions in accordance with Section 1E. below.

**1E.2. Program Performance Planning and Reporting**

**1E.2.(a) Project Implementation Plan**

Not later than sixty (60) days from the effective date of this Grant (see Section 1B. above), the Grantee shall prepare and submit to the A.I.D. Project Officer specified in the Cover Letter of this Grant three (3) copies of a project implementation plan, with critical path indicators (as described in Appendix A of A.I.D. Handbook 3), for the full term of this Grant.

**1E.2.(b) Annual Workplans**

**1E.2.(b)(1)** Not later than sixty (60) days following the effective date of this Grant (see Section 1B. above), the Grantee shall prepare and submit to the A.I.D. Project Officer specified in the cover letter of this Grant three (3) copies of a draft workplan which outlines the schedule of activities under the first year of this Grant. Thereafter, the Grantee shall submit three (3) copies of a draft annual workplan covering each successive year of this Grant not later than sixty (60) days prior to the start of the second and each subsequent year. Based on collaborative review, a final annual workplan will be approved by the A.I.D. Project Officer within thirty (30) days of the submission of the draft annual workplan.

**1E.2.(b)(2)** The annual workplan shall include the following information:

**1E.2.(b)(2)(A)** A list of activities to be undertaken during the workplan period, including testing at the various locations.

**1E.2.(b)(2)(B)** A statement of how the activities relate to the outputs and research priorities.

**1E.2.(b)(2)(C)** A projected beginning timeframe for the activities to begin.

**1E.2.(b)(2)(D)** A project ending timeframe for the completion of the activity.

**1E.2.(b)(2)(E)** A projected expenditure of person-months of input for each activity.

**1E.2.(b)(2)(F)** The projected stage of research or the projected outputs at the end of the annual workplan.

**1E.2.(b)(2)(G)** A statement indicating the provisions for complying with all relevant regulations dealing with biotechnology and genetically engineered biological products.

**1E.2.(c)** Quarterly Reports

The Grantee shall submit three(3) copies of brief quarterly program performance reports, which coincide with the financial reporting periods described in Section 1E.1. above, to the A.I.D. Project Office specified in the Cover Letter of this Grant. In addition, two copies shall be submitted to A.I.D., PPC/CDIE/DI, Washington, DC 20523-1802. These reports shall be submitted within 30 days following the end of the reporting period, and shall briefly present the following information:

**1E.2.(c)(1)** A comparison of actual accomplishments with the goals established for the period, the findings of the investigator, or both. If the output of programs can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.

**1E.2.(c)(2)** Reasons why established goals were not met, if applicable.

**1E.2.(c)(3)** Other pertinent information including the status of finances and expenditures and, when appropriate, analysis and explanation of cost overruns or high unit costs.

**1E.2.(d)** Special Reports

Between the required program performance reporting dates, events may occur that have significant impact upon the program. In such instances, the Grantee shall inform the A.I.D. Project Officer as soon as the following types of conditions become known:

**1E.2.(d)(1)** Problems, delays, or adverse conditions that will materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of work units by established time periods. This disclosure shall be accompanied by a statement of the action taken, or contemplated, and any A.I.D. assistance needed to resolve the situation.

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**1E.2.(d)(2)** Favorable developments or events that enable time schedules to be met sooner than anticipated or more work units to be produced than originally projected.

**1E.2.(1)(3)** If any performance review conducted by the Grantee discloses the need for change in the budget estimates in accordance with the criteria established in the Standard Provision of this Grant entitled "Revision of Grant Budget," the Grantee shall submit a request for budget revision to the Grant Officer and the A.I.D. Project Officer specified in the Cover Letter of this Grant.

**1E.2.(e)**            Annual Activity Reports

Within thirty (30) days following the annual anniversary date of this Grant, the Grantee shall submit to the A.I.D. Project Office specified in the cover letter of this Grant three (3) copies of an annual technical progress report which will be a description of the past year's activities, including technical, scientific, managerial, and fiscal information. The report shall include, both for each field site or subcontractor/subrecipient individually and for project activities as a whole, a review of program and problems to date, and a discussion of technical and managerial issues significant to the success or failure of this Grant. The report will also address regulatory issues related to the project. Although principally a technical document, it nevertheless must include pertinent statistics or quantitative information regarding the project and its activities. The Annual Activity Report shall also include an annual expenditure report corresponding to each annual workplan (see Section 1E.2.(b) above). These expenditure reports will cover A.I.D. and, if applicable, cost-sharing amounts by budget line item (see Section 1D.2. above) and by estimated distribution amongst project components, e.g., research, training, technical assistance, technology transfer, information dissemination, or networking.

**1E.2.(f)**            Technical and Research Reports and Publications

The Grantee shall summarize technical and research activities of the project in reports, and distribute such reports to the appropriate USAID Missions, LDCs, and host country and international institutions in order to encourage use of the technology developed. Such reports will be completed within 60 days after completion of the activity. Journal articles and other publications are encouraged. See also Section 11. of this Grant pertaining to publications.

**1E.2.(g) Environmental Impact**

If it appears that outputs of this project will result in an adverse environmental impact, the Grantee shall notify the A.I.D. Project Officer prior to implementation, in order to allow for orderly preparation of an environmental impact statement. The Grantee shall assure that appropriate U.S. Government and/or host country procedures are followed.

**1E.2.(h) Trip Reports**

Within 30 days following the completion of each international trip, the Grantee shall submit 3 copies of a trip report summarizing the accomplishments of the trip to the A.I.D. Project Officer specified in the cover letter of this Grant. If several individuals are travelling together to one site, a single report representing the group will suffice. The report shall include the purpose of the trip, technical observations, suggestions and recommendations, overall impressions of the site situation (if appropriate), and a list of persons visited with their title and organization affiliation.

**1E.2.(i) Training Reports**

**1E.2.(i)(1)** If the Standard Provision entitled "Participant Training" applies to this Grant (see Section 1K. for applicability), the Grantee shall comply with reporting and information requirements of the Standard Provision of this Grant entitled "Participant Training," as well as Chapters 5 and 24 of A.I.D. Handbook 10.

**1E.2.(i)(2)** The Grantee shall also provide five (5) copies of quarterly training reports to the A.I.D. Project Officer, covering this Grant. The report shall include the following information:

- Total number of new trainees during the period; and
- The following information for each LDC trainee:
  - name
  - citizenship
  - gender
  - training site
  - beginning and ending dates of training
  - purpose of training
  - type of training activities
  - source of funding

**1E.2.(i)(3)** The Grantee shall provide ten (10) copies of all training manuals produced under this Grant to the A.I.D. Project Officer.

**1E.2.(j) Care of Laboratory Animals**

If the Standard Provision entitled "Care of Laboratory Animals" applies to this Grant (see Section 1K. for applicability), the Grantee shall include the certificate required by paragraph (c) of said Standard Provision in all of its reports which pertain to the use of laboratory animals.

**1E.2.(k) Research Involving Recombinant DNA**

If any research involving recombinant DNA is being funded hereunder, the Grantee shall comply with the reporting requirements set forth in Section 1I.2.(d) of this Grant.

**1E.2.(l) Final Report**

Within 90 days following the estimated completion date of this Grant (see Section 1B. above), the Grantee shall submit five (5) copies of a final report to the A.I.D. Project Office specified in the cover letter of this Grant. In addition, two copies shall be submitted to A.I.D., PPC/CDIE/DI, Washington, DC 20523-1802. It will cover the entire period of the Grant and include all information shown in Sections 1E.2.(b) through 1E.2.(f) above.

**1F. TITLE TO PROPERTY**

Title to property acquired hereunder shall vest in the Grantee, subject to the requirements of the Standard Provision of this Grant entitled "Title To and Use of Property (Grantee Title)" regarding use, accountability, and disposition of such property, except to the extent that disposition of property may be specified in Section 1I. below.

**1G. PROCUREMENT AND (SUB)CONTRACTING**

**1G.1. Applicability**

This Section 1G. applies to the procurement of goods and services by the Grantee (i.e., contracts, purchase orders, etc.) from a supplier of goods and services (see the Standard Provisions of this Grant entitled "Procurement of Goods and Services" and "AID Eligibility Rules for Goods and Services"), and not to assistance provided by the Grantee (i.e., a subgrant or [sub]agreement) to a subrecipient (see the Standard Provision of this Grant entitled "Subagreements").

**1G.2. Requirements**

In addition to other applicable provisions of this Grant, the Grantee shall comply with paragraph (b)(1) of the Standard Provision of this Grant entitled "AID Eligibility Rules for Goods and Services," concerning total procurement value of less than \$250,000 under this Grant. If, under the order of preference set forth in paragraph (b)(1)(i) of said Standard Provision, the Grantee procures goods or services from cooperating country sources, the Standard Provision of this Grant entitled "Local Cost Financing" shall also apply. However, paragraph (b)(1) of the Standard Provision entitled "AID Eligibility Rules for Goods and Services" does not apply to: the restricted goods listed in paragraph (a)(3) of said Standard Provision and paragraph (e) of the Standard Provision entitled "Local Cost Financing," which must be specifically approved by the Grant Officer in all cases, except to the extent that such approval may be provided in Section II. below; or to paragraph (d) of said Standard Provision pertaining to air and ocean transportation, to which the Standard Provisions entitled "Air Travel and Transportation" and "Ocean Shipment of Goods" apply, respectively. Paragraph (b)(2) of the Standard Provision entitled "AID Eligibility Rules for Goods and Services" does not apply.

**1G.3. Approvals**

Inclusion of costs in the budget of this Grant for the purchase of nonexpendable equipment obviates neither the requirement of Section J.13. of OMB Circular A-21 (for educational institutions) or Section 13 of Attachment B of OMB Circular A-122 (for nonprofit organizations other than educational institutions) for prior approval of such purchases by the Grant Officer, nor any other terms and conditions of this Grant, unless specifically stated in Section II. below.

**1G.4. Title to Property**

See Section 1F. above.

**1H. INDIRECT COST RATES**

1H.1. Pursuant to the Standard Provisions of this Grant entitled "Negotiated Indirect Cost Rates - Predetermined" and "Negotiated Indirect Cost Rates - Provisional," a predetermined indirect cost rate or rates shall be established for each of the Grantee's accounting periods which apply to this Grant. Payments on account of allowable indirect costs shall be made on the basis of such predetermined rates. The rate(s) for the initial period and the base(s) to which it is (they are) applied is (are) as follows:

<u>Type</u>	<u>Rate</u>	<u>Base</u>	<u>Period</u>
On-Campus/Other Sponsored Research	39.2%	1/	07/01/91 - 06/30/93

1/ Base of Application: Total direct costs less expenditures for: 1) capital items (e.g. alterations, renovations and equipment); 2) that portion of each subaward in excess of \$25,000; 3) hospitalization and other fees associated with patient care whether obtained from a related or third party; 4) rental/maintenance cost of off-campus space; and 5) tuition remission, and participant support costs ( i.e. stipends, dependency allowance, scholarships and fellowships).

1H.2. Rates for subsequent periods shall be established in accordance with the Standard Provision of this Grant entitled "Negotiated Indirect Cost Rates - Predetermined."

**1I. SPECIAL PROVISIONS**

**1I.1. Limitations on Reimbursement of Costs of Compensation for Personal Services and Professional Service Costs**

**1I.1.(a) Employee Salaries**

Except as the Grant Officer may otherwise agree in writing, A.I.D. shall not be liable for reimbursing the Grantee for any costs allocable to the salary portion of direct compensation paid by the Grantee to its employees for personal services which exceed the highest salary level for a Foreign Service Officer, Class 1 (FS-1), as periodically amended.

**11.1.(b) Consultant Fees**

Compensation for consultants retained by the Grantee hereunder shall not exceed, without specific approval of the rate by the Grant Officer: either the highest rate of annual compensation received by the consultant during any full year of the immediately preceding three years; or the maximum rate of a Foreign Service Officer, Class 1 (FS-1) (as periodically amended), whichever is less. A daily rate is derived by dividing the annual compensation by 2,087 and multiplying the result by 8.

**11.2. Compliance With Federal Guidelines and Regulatory Procedures Pertaining to Recombinant DNA**

**11.2.(a)** The Grantee shall implement any research activities under this Grant which involve recombinant DNA in accordance with:

**11.2.(a)(1)** The National Institutes of Health Guidelines for Research Involving Recombinant DNA Molecules;

**11.2.(a)(2)** Procedures issued by the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA), or other appropriate Federal agency;

**11.2.(a)(3)** A.I.D.'s environmental procedures; and

**11.2.(a)(4)** Such other Federal guidelines and procedures as may apply during the course of research.

**11.2.(b)** The Grantee cannot commence testing in any foreign location until written approval for such testing is obtained from the A.I.D. Project Officer and the government of the country where testing is planned. Testing shall be conducted in accordance with all applicable regulations of that country.

**11.2.(c)** In addition, and prior to commencement of any such testing, the Grantee shall make a judgement and communicate same to the A.I.D. Project Officer as to whether the regulations, procedures, or facilities of the country in question are adequate to ensure testing in an environmentally sound manner. In the event such judgement is that they are not, the Grantee and the A.I.D. Project Officer will consult and agree on the conditions to be applied to the testing which will have such environmental effect.

**11.2.(d)** Reports submitted to A.I.D. under this Grant will address regulatory issues as noted above related to the activity.

### 11.3. Publications

11.3.(a) The Grantee agrees to provide one copy of the manuscript of any proposed publication to the A.I.D. Project Officer not later than submission to the publisher, and to give serious consideration to any comments received from the A.I.D. Project Officer.

11.3.(b) In the case of publication of any of the reports described in Section 1E.2. of this Grant, A.I.D. reserves the right to disclaim endorsement of the opinions expressed. For other publications, A.I.D. reserves the right to dissociate itself from sponsorship or publication. In both cases, the Grantee will consult with the A.I.D. Project Officer as to the nature and extent of any A.I.D. disclaimer of endorsement or dissociation from sponsorship or publication.

11.3.(c) If A.I.D. does not choose to disclaim endorsement or dissociate itself from sponsorship or publication, the Grantee shall, in accordance with the Standard Provision of this Grant entitled "Publications," acknowledge A.I.D. support as follows:

"This publication was made possible through support provided by the Office of Agriculture, Bureau for Science and Technology, U.S. Agency for International Development, under Grant No. DAN-4200-G-00-1124-00."

11.3.(d) In addition to providing one copy of all published works and lists of other written work produced under this Grant to the A.I.D. Project Officer, as required by paragraph (b) of the Standard Provision of this Grant entitled "Publications," the Grantee shall also provide two copies of such publications and lists to A.I.D., PPC/CDIE/DI, Washington, D.C. 20523-1802.

### 11.4. Equipment and Other Capital Expenditures

#### 11.4.(a) Requirement for Prior Approval

Pursuant to Sections 1D.3. and 1G.3. above and the Standard Provisions of this Grant entitled "Allowable Costs" and "Revision of Grant Budget," and by extension, Section J.13. of OMB Circular A-21, the Grantee must obtain A.I.D. Grant Officer approval for the following:

11.4.(a)(1) Purchase of General Purpose Equipment, which is defined as an article of nonexpendable tangible personal property, the use of which is not limited only to research, medical, scientific, or other activities [e.g., office equipment and furnishings, air conditioning equipment, reproduction and other equipment, motor vehicles, and automatic data processing equipment, having a useful life of more than two years and an acquisition cost of \$500 or more per unit];

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11.4.(a)(2) Purchase of Special Purpose Equipment, which is defined as an article of nonexpendable tangible personal property, which is used only for research, medical, scientific, or other technical activities, and which has a useful life of more than two years and an acquisition cost of \$1,000 or more per unit); and

11.4.(a)(3) Other Capital Expenditures, which is defined as the cost of the asset, including the cost to put it in place).

11.4.(b) Approvals

In furtherance of the foregoing, the Grant Officer does hereby provide approval for the following purchases, which shall not be construed as authorization to exceed the total estimated amount or the obligated amount of this Grant, whichever is less (see Section 1C. above) :

N/A

11.4.(c) Exception for Automation Equipment

Any approval for the purchase of automation equipment which may be provided in Section 11.4.(b) above or subsequently provided by the Grant Officer is not valid if the total cost of purchases of automation equipment (e.g., computers, word processors, etc.), software, or related services made hereunder will exceed \$100,000. The Grantee must, under such circumstances, obtain the approval of the Grant Officer for the total planned system of any automation equipment, software, or related services.

11.4.(d) Compliance with A.I.D. Eligibility Rules

Any approvals provided in Section 11.4.(b) above or subsequently provided by the Grant Officer shall not serve to waive the A.I.D. eligibility rules described in Section 1G. of this Grant, unless specifically stated.

11.5. Restricted Goods

Pursuant to Section 1G. above, paragraph (a)(3) of the Standard Provisions of this Grant entitled "AID Eligibility Rules for Goods and Services," and, if applicable (see Section 1K. below for applicability), paragraph (e) of the Standard Provision of this Grant entitled "Local Cost Financing," the Grant Officer's approval is required for purchase of the restricted goods

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described therein. In furtherance thereof, the Grant Officer does hereby provide such approval to the extent set forth below. The Grant Officer's approval is required for purchases of such restricted goods if all of the conditions set forth below are not met by the Grantee. Any approval provided below or subsequently provided by the Grant Officer shall not serve to waive any terms and conditions of this Grant unless specifically stated.

#### **II.5.(a) Agricultural Commodities**

Agricultural commodities may be purchased provided that they are of U.S. source (generally, the country from which the commodities are shipped) and origin (generally, the country in which the commodities are mined, grown, or produced) and purchased from a U.S. supplier, except that wheat, rice, corn, soybeans, sorghums, flour, meal, beans, peas, tobacco, hides and skins, cotton, vegetable oils, and animal fats and oils cannot be purchased under any circumstances without the prior written approval of the Grant Officer.

#### **II.5.(b) Motor Vehicles**

Motor vehicles, if approved for purchase under Section 11.4.(b) above or subsequently approved by the Grant Officer, must be of U.S. manufacture and must be of at least 51% U.S. componentry. The source of the motor vehicles, and the nationality of the supplier of the vehicles, must be in accordance with Section 1G.2. above. Motor vehicles are defined as self-propelled vehicles with passenger carriage capacity, such as highway trucks, passenger cars and busses, motorcycles, scooters, motorized bicycles, and utility vehicles. Excluded from this definition are industrial vehicles for materials handling and earthmoving, such as lift trucks, tractors, graders, scrapers, and off-the-highway trucks.

#### **II.5.(c) Pharmaceuticals**

Pharmaceuticals may be purchased provided that all of the following conditions are met: (1) the pharmaceuticals must be safe and efficacious; (2) the pharmaceuticals must be of U.S. source and origin (see Section 1G. above); (3) the pharmaceuticals must be of at least 51% U.S. componentry (see Section 1G. above); (4) the pharmaceuticals must be purchased from a supplier whose nationality is in the U.S. (see Section 1G. above); (5) the pharmaceuticals must be in compliance with U.S. Food and Drug Administration (FDA) (or other controlling U.S. authority) regulations governing United States interstate shipment of pharmaceuticals; (6) the manufacturer of the pharmaceuticals must not infringe on U.S. patents; and (7) the pharmaceuticals must be competitively procured in accordance with the procurement policies and procedures of the Grantee and the Standard Provision of this Grant entitled "Procurement of Goods and Services."

**11.5.(d)            Pesticides**

Pesticides may only be purchased if the purchase and/or use of such pesticides is for research or limited field evaluation by or under the supervision of project personnel. Pesticides are defined as substances or mixtures of substances: intended for preventing destroying, repelling, or mitigating any unwanted insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, bacteria, or other micro-organisms (except viruses, bacteria, or other micro-organisms on or living in man or other living animals); or intended for use as a plant regulator, defoliant, or dessicant.

**11.5.(e)            Rubber Compounding Chemicals and Plasticizers**

Rubber compounding chemicals and plasticizers may only be purchased with the prior written approval of the Grant Officer.

**11.5.(f)            Used Equipment**

Used equipment may only be purchased with the prior written approval of the Grant Officer.

**11.5.(g)            Fertilizer**

Fertilizer may be purchased if it is either purchased in the U.S. and used in the U.S., or if it is purchased in the cooperating country with local currency for use in the cooperating country. Any fertilizer purchases which do not comply with these limitations must be approved in advance by the Grant Officer.

**11.6.            Limitation on Use of Funds**

**11.6.(a)**            The Grantee shall not utilize funds provided by A.I.D. for any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference or training in connection with the growth or production in countries other than the United States of an agricultural commodity for export which would compete with a similar commodity grown or produced in the United States.

**11.6.(b)**            The reports described in Section 1E.2. shall contain a statement indicating the projects or activities to which United States funds have been attributed, together with a brief description of the activities adequate to show that United States funds have not been used for the purpose in Section 11.6.(a) above.

**II.6.(c)** The Grantee agrees to refund to A.I.D. upon request an amount equal to any United States funds used for the purposes prohibited by Section II.6.(a) above.

**II.6.(d)** No funds provided by A.I.D. under this Grant shall be used to provide assistance, either directly or indirectly, to any country ineligible to receive assistance pursuant to the Foreign Assistance Act as amended, related appropriations acts, or other statutes and Executive Orders of the United States (also see the Standard Provision of this Grant entitled "Ineligible Countries").

**IJ. RESOLUTION OF CONFLICTS**

Conflicts between any of the Attachments of this Grant shall be resolved by applying the following descending order of precedence:

- Attachment 1 - Schedule
- Attachment 3 - Standard Provisions
- Attachment 4 - Special Provision entitled "Restrictions on Lobbying"
- Attachment 2 - Program Description

**IK. STANDARD PROVISIONS**

The Standard Provisions set forth as Attachment 3 of this Grant consist of the following Standard Provisions denoted by an "X" which are attached hereto and made a part of this Grant:

**IK.1. Mandatory Standard Provisions For U.S., Nongovernmental Grantees**

- ( X ) Allowable Costs (November 1985)
- ( X ) Accounting, Audit, and Records (September 1990)
- ( X ) Refunds (September 1990)
- ( X ) Revision of Grant Budget (November 1985)
- ( X ) Termination and Suspension (May 1986)
- ( X ) Disputes (November 1989)
- ( X ) Ineligible Countries (May 1986)
- ( X ) Debarment, Suspension, and Other Responsibility Matters (March 1989)
- ( X ) Nondiscrimination (May 1986)
- ( X ) U.S. Officials Not to Benefit (November 1985)
- ( X ) Nonliability (November 1985)
- ( X ) Amendment (November 1985)
- ( X ) Notices (November 1985)

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**1K.2. Additional Standard Provisions For U.S. Nongovernmental Grantees**

- ( X ) Payment - Letter of Credit (November 1985)
- ( ) Payment - Periodic Advance (January 1988)
- ( ) Payment - Cost Reimbursement (November 1985)
- ( X ) Air Travel and Transportation (November 1985)
- ( X ) Ocean Shipment of Goods (May 1986)
- ( X ) Procurement of Goods and Services (November 1985)
- ( X ) AID Eligibility Rules for Goods and Services (November 1985)
- ( X ) Subagreements (November 1985)
- ( X ) Local Cost Financing (November 1988)
- ( X ) Patent Rights (November 1985)
- ( X ) Publications (November 1985)
- ( X ) Negotiated Indirect Cost Rates - Predetermined (May 1986)
- ( ) Negotiated Indirect Cost Rates - Provisional (May 1986)
- ( X ) Regulations Governing Employees (November 1985)
- ( X ) Participant Training (May 1986)
- ( X ) Voluntary Population Planning (August 1986)
- ( X ) Protection of the Individual as a Research Subject (November 1985)
- ( X ) Care of Laboratory Animals (November 1985)
- ( ) Government Furnished Excess Personal Property (November 1985)
- ( X ) Title To and Use of Property (Grantee Title) (November 1985)
- ( ) Title To and Care of Property (U.S. Government Title) (November 1985)
- ( ) Title To and Care of Property (Cooperating Country Title) (November 1985)
- ( X ) Cost Sharing (Matching) (November 1985)
- ( ) Use of Pouch Facilities (November 1985)
- ( X ) Conversion of United States Dollars to Local Currency (November 1985)

**1L. COST SHARING AND OTHER CONTRIBUTIONS**

1L.1. The Grantee agrees to expend an amount not less than (a) the amount shown in the budget of this Grant for financing by the Recipient and/or others from non-federal funds (see Sections 1D. and/or 1H.), and (b) the amount shown in the budget of this Grant for financing by the Recipient and/or others from other federal funds.

**1L.2.** The Standard Provision of this Grant entitled "Cost Sharing (Matching)" makes reference to project costs. "Project Costs" are defined in Attachment E of OMB Circular A-110 as all allowable costs (as set forth in the applicable cost principles [see the Standard Provision of this Grant entitled "Allowable Costs"]) incurred by a Grantee and the value of in-kind contributions made by the Grantee or third parties in accomplishing the objectives of this Grant during the program period.

**1L.3.** The restrictions on the use of A.I.D. funds provided hereunder, as set forth in this Grant, do not apply to cost-sharing (matching) or other contributions unless such restrictions are stated in the applicable federal cost principles and/or imposed by the source of such cost-sharing (matching) funds or other contributions.

ATTACHMENT 2

PROGRAM DESCRIPTION

The Grantee's proposal entitled "International Summer Institute for Genetic Resources Conservation of Animals and Plants" and is attached hereto as the Program Description (Attachment 2) and is made a part of this Grant.

### III. Background and justification

The global need for professional training in conservation biology, especially in *ex situ* conservation has been documented in many recent studies and reports. For example, a recent report on the status of plant genetic resources notes: "There is an inadequate supply of trained personnel for plant genetic resources work."\* The same is true for animal genetic resources.

The International Board for Plant Genetic Resources (IBPGR) and the UN FAO have made great strides in establishing plant genetic resources conservation programs and regional gene banks in many developing countries. However, in many cases, the scientists who are in charge of these facilities do not have formal genetic or conservation training. These persons need to build on their basic biology backgrounds with an introduction to the principles of genetic resources conservation. In many cases, international development agencies provide resources to support study in many areas of specialization, but there have been few institutions where genetic resources conservation education in the broad sense is emphasized.

For plant genetic resources, a program at the University of Birmingham, UK with support from IBPGR offers the MSc graduate degree in conservation and utilization of plant genetic resources. This University has offered a six-week short course on *in situ* plant conservation as well. The International Rice Research Institute has offered a one-year course on domesticated plant genetic resources conservation. While IBPGR and other organizations in the world offer various short courses and workshops relevant to plant genetic resources conservation, there remains a need for overview courses and emphasis on international audiences.

For animal genetic resources, the situation is even less organized with no international unit on the order of the IBPGR. Workshops and courses in specific techniques have been and are being held, but there is a lack of training in the broad aspects of animal genetic resources conservation. Private organizations and nongovernmental organizations have taken responsibility for the conservation of several individual species and breeds of animals. At the national government level, India has had an organization for dealing with animal germplasm since 1984, the National Bureau for Animal Genetic Resources. Training is an identified objective of this program. In the United States, there is a proposal for a National Animal Germplasm Program to be established in the US Dept. of Agriculture, but it has a greater emphasis on conservation and research rather than training.

Given the need for training there are several approaches to satisfy it. In an apprenticeship model, qualified individuals can be placed in laboratories involved in particular techniques for training periods sufficient for the participant to become adept in those practices; periods of one and a half to two years would typically be required. Another approach is to support qualified students for relevant degree programs at universities; three to five years, depending on the degree, would be required. There is still a need, however, for a more rapid dissemination of the state-of-the-art information on conservation of genetic resources to larger numbers of people than apprenticeships and degree programs can accommodate. The Institute described here address this broad audience. A measure of the success of the courses comprising the Institute will be the subsequent development of longer term courses of training and establishment of contacts that lead to apprenticeships or degree programs.

### IV. Project purpose

This proposal requests support from USAID to develop and conduct a five-week International Summer Institute in Genetic Resources Conservation of Animals and Plants, 6 July - 7 August 1992.

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\* Keystone Center. 1988. Final Report of the Keystone International Dialogue on Plant Genetic Resources. Session I: *Ex situ* conservation of Plant Genetic Resources. August 15-18, 1988. Keystone, CO USA.

The Institute will consist of two concurrent five-week courses, animal genetic resources conservation and plant genetic resources conservation. The targeted student audience will be graduate students, gene bank managers, collection curators, and others professionally employed in biological conservation from developing and developed countries.

## V. Project objectives

The International Summer Institute for Genetic Resources Conservation of Animals and Plants will be composed of two concurrent, but independent tracks: one dealing with conservation of domestic and wild animal genetic resources and the other with conservation of domestic and wild plant genetic resources. Each five-week track will provide a combination of: 1) overview presentations on the issues of conservation, the organizations involved in conservation, the genetic and biological principles relevant to conservation, the protocols and technologies available for *ex situ* conservation, the principles of organism health and quarantine issues relevant to conservation, and the relevance of *ex situ* conservation activities to *in situ* conservation efforts; 2) case study presentations that exemplify specific problems, solutions, and applications; 3) laboratory exercises designed to provide hands-on acquaintance with the objectives and contributions of various technologies useful in evaluating, monitoring, and maintaining collections; and 4) tours or field trips to California sites with active research and programs in conservation.

The Institute will be held for five weeks in 1992, July 6 to August 7. The proposed numbers of students for the two tracks are 30 for the plant conservation course and 60 for the animal conservation course. Students will be expected to have at least a baccalaureate degree and to be fluent in English. Targeted attendees of the Institute will be: 1) individuals employed by national conservation programs; 2) advanced students from US and foreign universities; and 3) individuals employed by nongovernmental international conservation organizations.

GRCP will be assisted in the logistics of travel, facilities, housing, and administration by the International Training and Education Center of the University of California Extension on the Davis Campus. Campus dormitory and food service will be contracted to accommodate the students at relatively low cost.

### A. Course descriptions

Two steering committees have been organized to advise the development of the Institute. The members are named on pages 1 and 2. These persons represent geneticists, conservation biologists, and curators of genetic resource collections from several University of California campuses and the US Department of Agriculture. Topic outlines for the courses have been drafted and reviewed by the respective steering committees. Speakers for the lecture topics and case studies and coordinators for the laboratories have been identified from among the faculty and staff of the University of California and from various state, federal, and international agency and research personnel involved in conservation activities. Lectures are designed to provide background, imperatives, scientific objectives, and overviews of the worldwide status of conservation efforts, the genetic basis and theory for conservation, highlights of research relevant to conservation, analysis of problem areas and issues, discussion of the application of technologies to conservation objectives, and introduction to the organizations active in conservation. The courses will be conducted independently for the most part. However, there are some topics of general importance for both animal and plant conservation for which we plan to hold joint lectures.

Case studies will be used to expand upon and extend information from the more general lecture topics. Case studies will involve review of relevant literature, presentations of research results, and demonstrations of techniques. Laboratories will provide hands-on introduction to selected

techniques of germplasm analysis, measurement, and maintenance and to techniques of data management. California is fortunate to have several federal, state, and University programs involved in genetic resources conservation. The successes of these programs and the problems they face are instructive, the Summer Institute will feature visits and tours to the sites of several programs. Since one objective of the courses is the enhancement of communication among practitioners of conservation throughout the world, the courses will have scheduled opportunities for the participants to introduce themselves and report on the programs, experiences, and objectives that bring them to these courses.

### 1. *Animal Genetic Resources Conservation*

This five-week course is designed to accommodate 60 students. An outline of proposed course topics is provided in Table 3. The first three weeks will be devoted to lectures, case studies, and field trips. Activities of the initial two weeks will be based on the Davis campus and those of the third week will be based on the San Diego campus. Air travel is planned between the Davis campus and San Diego campus to maximize the time available in the San Diego area. The remaining two weeks will be devoted to laboratory exercises. Eleven different intensive one-week laboratories are planned that will accommodate 5 to 10 students each. Thus each student will be able to participate in two of these. As part of the registration procedure, a student would indicate lab preferences; assignment to labs would then be made on the basis of student interest and experience. Most of the labs will be held on the Davis campus, but some will be held on the San Diego campus and at the San Diego Zoo Center for Reproduction of Endangered Species as well.

Integral to the course will be visits and demonstrations at centers where conservation and research activities are being conducted. University of California sites and activities include: the California Primate Research Center, the Aquaculture and Fisheries Program, the School of Veterinary Medicine, and the Raptor Center at UC Davis; the Museum of Vertebrate Zoology at UC Berkeley; the UC San Diego Scripps Institution of Oceanography at La Jolla; the Hastings Natural History Reservation in the Carmel Valley, one of the 30 natural reserves operated by the University of California; and the UC Davis Bodega Bay Marine Laboratory at Bodega Bay. Non-University sites include the California Academy of Sciences; Marine World; Sea World; and the San Diego Zoo and Wild Animal Park.

### 2. *Plant Genetic Resources Conservation*

This five-week course is designed to accommodate 30 students. An outline of proposed course topics is provided in Table 4. The first three weeks of the course will be devoted to lectures, case studies, field trips, and laboratory activities based on the Davis campus. The fourth week will involve a tour to southern California for lectures and field trips at the University of California campuses of Riverside and Irvine. Travel between the Davis campus and the southern campuses will be by bus since there are several sites for field trips *en route*. The final week will be based in Davis again, and activities will be lectures, case studies, and conclusions to some of the lab exercises.

The lab activities will be held primarily in the second two weeks. Two suites of activities will be designed for 15 students and repeated each week so that everyone will have participated in the same exercises.

Visits and demonstrations will take place at centers where plant genetic resources conservation and research activities are being conducted. University of California sites and activities include UC Berkeley Botanical Garden; the UC Davis Arboretum; the UC Irvine Arboretum; and UC South Coast Field Station. Non-University sites include the California Academy of Sciences; the Center for Conservation of Genetic Diversity at the US Forest Service Institute of Forest Genetics; the National Clonal Germplasm Repository at Davis; and the National Clonal Germplasm Repository at Riverside.

Sites that will be visited *en route* from Davis to southern California include the UC Kearney Agriculture Center and the Kesterson Reserve.

#### **B. Course management**

The Genetic Resources Conservation Program will coordinate the academic content of the courses and organize the participation of lecturers, speakers, tour leaders and hosts, and lab coordinators with the advice of the steering committees. GRCP will also administer funds for support of the courses and students. The Institute will be administered in accordance with AID's Handbook 10, Participant Training. The International Training and Education Center will handle advertising of the courses, registration of students, scheduling and logistics of course events, and payment of instructors. ITEC staff will work with instructors to prepare course materials for students and to have appropriate audio visual classroom materials prepared.

We propose to secure the participation of two course leaders to provide some of the lectures and serve as hosts, providing daily contact with the classes. For the animal course, the course leader will be with the class for the initial three weeks of activities that are common to all students. For the plant course, the leader will be with the class for the full five weeks. These are key roles, and we will seek to employ persons from our faculty or recruit externally senior professionals, well established in genetic resources conservation. As an example, Dr. T.T. Chang, recently retired from serving as head of the International Rice Germplasm Center, would be an ideal person for the plant genetic resources conservation course leader.

AID 1350-1  
13 877

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT IMPLEMENTATION ORDER/TECHNICAL SERVICES

1. Cooperating Country: **Worldwide**

2. PIOT No. **1361457**

3.  Original or Amendment No. \_\_\_\_\_

4. Project/Activity No. and Title: **936-4200 (Doc # 42000) Agriculture Program Development and Support (Noah - International Summer Institute for Genetic Resources Conservation of Animals and Plants)**

Page 1 of 3 Pages

DISTRIBUTION  
 Date Posted: **5/14/91**  
 PPM/INT/PRP  
 OFFICE OF FINANCIAL MANAGEMENT

5. Appropriation Symbol: **72-1111021.3**

6. Budget Plan Code: **DDNA-91-13600-IG11(143-36-099-06-20-11)**

7. Obligation Status:  Administrative Reservation  Implementing Document

8. Project Assistance Completion Date (Mo., Day, Yr.): **4/30/91**

9. Authorized Agent: **MS/OP/W/EA**

10. This PIOT is in full conformance with PRO/AG No. **PAF signed by AA/S&T** Date **5/2/91**

11a. Type of Action and Governing AID Handbook:  
 AID Contract (OMB 148)  AID Grant or Cooperative Agreement (OMB 121)  PASA/RSSA (OMB 123)  Other

11b. Contract/Grant/Cooperative Agreement PASA/RSSA Reference Number (if this is an Amendment): **TBD**

12. Estimated Financing (A detailed budget in support of column (2) is attached as Attachment No. \_\_\_\_\_)

Maximum AID Financing Available	A. Dollars	(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
			-	\$235,779	-
	B. U.S.-Owned Local Currency				

13. Mission References

14A. Instructions to Authorized Agent: Request that you negotiate a sixteen-month grant with the Regents of the University of California, Genetic Resources Conservation Program, University of California in support of the attached unsolicited proposal, "International Summer Institute for Genetic Resources Conservation of Animals and Plants". A justification for non-competitive award is attached. A program description and budget are provided within the proposal. Funds provided in this PIOT will cover activities through the entirety of the grant period. Voucher Identification: See Block#22 of this PIOT.  
*CN in process; obligation may be incurred 5/24/91.*

14B. Address of Voucher Paying Office: **Agency for International Development, FM/CPD/DCB, Rm. 700, SA-2, Washington, D. C. 20523.**

15. Clearances—Include typed name, office symbol, telephone number and date for all clearances.

A. The Project Officer certifies that the specifications in the statement of work or program description are technically adequate.	Phone No. <b>875-4219</b> Date <b>5/15/91</b>	B. The statement of work or program description has been reviewed by the initiating office and approved for funding purposes.	Date <b>5/15/91</b>
S&T/AGR/AP, J. Cohen <i>J. Cohen</i>	Date <b>5/15/91</b>	S&T/AGC, David Bathrick	
C. S&T/AGR/AP, H. Harvey <i>H. Harvey</i>	Date <b>5/15/91</b>	D. Funds for the services requested are available.	Date
S&T/AGR, M. Blakeney			
E. S&T/AGR, E. Carter <i>E. Carter</i>	Date <b>5/15/91</b>		
S&T/PO, C. Noren <i>C. Noren</i>	Date <b>5/15/91</b>	FM/A/PRP, Rose Anderson	
M. For the Cooperating Country: The terms and conditions set forth herein are hereby agreed to.	Signature _____ Date _____	17. For the Agency for International Development	
		Signature <i>Elizabeth P. Roche</i> Date <b>5/15/91</b>	
		Title <b>Chief, Elizabeth P. Roche, S&amp;T/PO/PR</b>	

\*See HB 3, Sup. A, App. C, All B, for preparation instructions. Note: The completed form contains sensitive information whose unauthorized disclosure may subject an employee to disciplinary action.