



U.S. AGENCY FOR
INTERNATIONAL
DEVELOPMENT

ENTERED
SEP 30 1993
Section

SEP 16 1993

Mr. Ravi Tadvalkar
Senior Finance Officer
Consultative Group On International
Agricultural Research
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Subject: Grant No. LAG-4200-G-00-3048-00

Dear Mr. Tadvalkar:

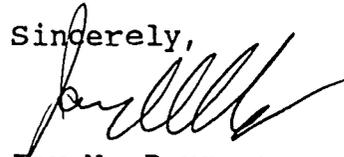
Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D.") hereby grants to The World Bank (hereinafter referred to as the "Grantee"), the sum of \$400,000.00 to provide partial support for the Consultative Group on International Agricultural Research (CGIAR) assistance to the Vavilov Institute of Plant Industry, as described in the Schedule of this grant and in Attachment 2, entitled "Program Description."

This grant is effective and obligation is made as of the date of this letter and shall apply to expenditures made by the Grantee in furtherance of program objectives for the period set forth in Section B of Attachment 1 of this Grant.

This grant is made to the Grantee on condition that the funds will be administered in accordance with the terms and conditions as set forth in Attachment 1 (the Schedule); Attachment 2 (the Program Description); and Attachment 3 (the Standard Provisions); all of which 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,



Jay M. Bergman
Grant Officer
Chief, LA Branch
Division B
Office of Procurement

Attachments:

1. Schedule
2. Program Description
3. Standard Provisions

ACKNOWLEDGED:

Consultative Group on International
Agricultural Research
THE WORLD BANK

BY: Ravi Tadvalkar



TITLE: Senior Finance Officer

DATE: September 22, 1993

FISCAL DATA

Appropriation: 72-112/31037
Budget Plan Code: DES2-93-16900-KG-11
PIO/T No.: 936-4200-3692468
Project No.: 936-4200
Total Estimated Amount: \$400,000
Total Obligated Amount: \$400,000
Paying Office: FA/FM/CMP/DC
Project Office: R&D/AGR/IARC, R. Bertram
Allotment No.: 270-36-099-00-69-31

SCHEDULE

A. Purpose of Grant

The purpose of this Grant is to provided partial support of the Consultative Group on International Agricultural Research (CGIAR) to support the Vavilov Institute of Plant Industry, as more specifically described in Attachment 2 (the Program Description) of this Grant.

B. Period of Grant

1. The effective date of this Grant is September 16, 1993. The expiration date of this Grant is September 15, 1995.

C. Amount of Grant and Payment

1. A.I.D. hereby obligates the amount of \$400,000 for purpose of this Grant.

2. Payment shall be made to the Grantee in accordance with procedures set forth in Attachment 3, Standard Provision No. 11. Payment (Periodic Advances) (July 1988).

D. Grant Budget

The following is the Grant Budget. Revisions to this Budget shall be made in accordance with the Standard Provision of this Grant entitled "Revision of Grant Budget."

	TOTAL ESTIMATED			
	<u>COST ELEMENT</u>	A.I.D.	Other Donors	TOTAL
1) Technical Consultancies ^{1/}	50,000		150,000	\$ 200,000
2) Seed Processing (Drying & Storage)	\$ 230,000		\$ 570,000	\$ 800,000
3) Seed Multiplication	30,000		70,000	\$ 100,000
4) In-vitro growth chambers	45,000		55,000	\$ 100,000
5) Herbarium Support and Integration	10,000		15,000	\$ 25,000
6) Technical Training	30,000		70,000	\$ 100,000
7) Translation and Editing	5,000		20,000	\$ 25,000
8) International Coordination	- 0-		150,000	\$ 150,000
	TOTAL	\$ 400,000	\$1,100,000	\$1,500,000

^{1/} Salaries for consultancies are to be determined. 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.

E. Reporting

1. Special Reports

During the period of performance, events may occur that have significant impact upon the CGIAR's program. In such instances, the Grantee shall inform the A.I.D. Project Officer as soon as the following types of conditions become known:

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.

Favorable developments or events that enable time schedules to be met sooner than anticipated or more work units to be produced than originally projected.

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.

2. Technical and Research Reports and Publications

The Grantee shall summarize technical and research activities of the meetings 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 meetings. Journal articles and other publications are encouraged. See also Section 9 of the STANDARD PROVISIONS (Attachment 3) pertaining to publications.

3. Final Report

Within 90 days following the estimated completion date of this Grant (see Section B. 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., POL/CDIE/DI, Washington, DC 20523-1802. It will cover the entire period of the Grant and include all information shown in Sections E.1. through E.2. above.

4. Report Distribution:

(Special, Technical, Research, Publication & Final)

a. 3 copies of all reports described above will be provided to the A.I.D. Project Officer, R&D/AGR/IARC, Room 406, SA-18, Washington, D.C. 20523-1806

b. The Grantee shall prepare and submit 2 copies of each report required by this grant to the Bureau for Program and Policy Coordination, Center for Development Information and Evaluation, Development Information Division (POL/CDIE/DI). All documents should be mailed to:

POL/CDIE/DI
Room 209, SA-18
Agency for International
Development
Washington, D.C. 20523-1802

The title of all reports forwarded shall include a descriptive title, the author's name(s), grant number, the project number and title, contractor's name, name of the A.I.D. project office, and the publication or issuance date of the report.

5. Financial Reporting

a. Financial reporting requirements shall be in accordance with the Standard Provision of this Grant entitled "Payment - Periodic Advance", as shown in Attachment 3.

b. All financial reports shall be submitted to A.I.D., Office of Financial Management, Cash Management and Payment Division, Document and Control Branch, (FA/FM/CMP/DC), 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.

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 5.a. of the above.

F. Special Provision

1. The Grantee shall obtain the permission of the Grant Officer prior to providing any monies or benefits, either directly or indirectly, to any employee of the United States Government.

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2. 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.
3. The reports described in Section E 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 F.2 above.
4. 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.
5. Grantee shall not utilize funds provided by U.S.A.I.D. for Capital Development.
6. 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 any clause or provision herein.

PROGRAM DESCRIPTION

I. TITLE: Proposed Protocol for Quarantine Field Test of a Vaccinia Virus Double Recombinant Vaccine for Rinderpest in Kenya

II. PURPOSE:

The purpose of this project is to initiate a confined field testing of the "Vaccinia Virus Double Recombinant Vaccine for Rinderpest" in Kenya as required by OIE, FAO/UN, WHO/UN, and USDA/APHIS.

III. OBJECTIVES:

The objective of the quarantine field test is to gather information over a one year period on the efficacy and safety of VRVFX for vaccination against rinderpest. In this trial, the vaccine will be administered to cattle by intradermal injection (ID) and scarification in a P3 isolation facility. Cattle will be kept under strict quarantine for 30 days postvaccination. They will then be transferred to a fenced pasture, and immunological and challenge studies will be conducted during a period of one year. All challenge studies will be conducted in a P3 facility. After completion of the challenge study, animals will be euthanized, and the carcasses will be incinerated. On a quarterly basis, the progress of the study will be reported to USDA/APHIS, United States Agency for International Development (USAID), OIE, FAO/UN, WHO/UN, OAU, and the Biosafety Committee of the host country.

IV. DISCUSSION:

Rinderpest is not only the single most important disease of livestock in developing countries of Africa and Asia, but has also played a crucial role in the development of the veterinary profession. Rinderpest may now enter a final chapter in its history as the focus of one of the first effective recombinant vaccines to find general use. While it took nearly 200 years and a concerted international disease control campaign to eradicate smallpox using Jenner's vaccination technique, a vaccinia virus recombinant vaccine for rinderpest, properly used may rid the world of rinderpest within a decade. Eradication of rinderpest using this vaccine will clearly demonstrate the potential of this new generation of vaccines in controlling major infectious diseases that inflict economic hardship and suffering on humans and animals worldwide.

Rinderpest is an acute, febrile, highly contagious viral disease of ruminants (particularly cattle and buffalo) with a rapid course and high mortality rate. It is characterized by inflammation, hemorrhaging, necrosis, and erosion of the gastrointestinal tract accompanied by bloody diarrhea, wasting, and death. It was first recognized as a distinct disease during the great European epizootic of AD 376-386, and in the 18th century alone, rinderpest wiped out an estimated 200 million cattle in Europe (Plowright, 1968). A century ago, the most devastating epizootic of rinderpest in Africa was ignited by the introduction of three infected Indian cattle through the port of Massawa during the Italian invasion of Ethiopia in 1889. The disease quickly engulfed the entire cattle

population of Ethiopia, killing over 90% of the cattle population of the country. This particular strain of rinderpest was so virulent that it affected even sheep and goats, although not to the same degree as cattle. Great mortality was also reported in wild ruminants such as the buffalo, hartebeest, and antelope. The consequence of this devastation was the death by starvation of an estimated 30-60% of the population of Ethiopia (Pankhurst, 1966a, 1966b). Shortly thereafter, the disease spread to the entire continent of Africa, killing hundreds of millions of cattle and wild ruminants.

The urgent need to combat rinderpest resulted in establishment of the first veterinary school in 1762 (France), and the convening of the First International Veterinary Congress at Hamburg in 1863. More recently, rinderpest was a major impetus for the founding of the Office Internationale des Epizooties in Paris (Vittoz, 1963). In addition, the largest disease eradication program in the history of veterinary medicine, the Joint Program\15 (JP\15) to eradicate rinderpest was initiated in 1962 through the coordinated efforts of a number of governments and international organizations in 1962. During the execution of this program, conducted in western Africa through 1968, a total of 81,484,126 cattle were vaccinated reflecting in a dramatic drop in the number, size, and distribution of rinderpest outbreaks. After this successful campaign, the JP\15 program was extended to six countries in East Africa (Kenya, Tanzania, Uganda, Somalia, Ethiopia, and the Sudan). In 10 years a total of 124,099,454 cattle were vaccinated in West and East Africa (MacFarlane, 1971). For two years (1970-1972), Dr. Yilma, the principal investigator of this proposal, participated in the vaccination of over 40 million cattle in East Africa as part of the Ethiopian JP\15 program. The major financial donor for the program was USAID, under the Directorship of Dr. Donald DeTray.

Rinderpest virus (RPV) is a member of the family Paramyxoviridae and is classified in the genus Morbillivirus, along with measles virus of humans, distemper virus of dogs, peste-des-petits-ruminants (PPR,) and phocid distemper virus of seal (Mahy, et al., 1988). All these viruses are antigenically related and can confer cross-immunity in experimental animals.

The virus is enveloped and has a spherical morphology with a helical nucleocapsid. It has a single-stranded RNA genome with a minus polarity, associated with three tightly bound polypeptides (L, P, NP), which constitute the RNA-dependent RNA polymerase. Like other paramyxoviruses, morbilliviruses are composed of six proteins: the large (L) protein, phospho (P) protein and nucleoprotein (NP) inside the virion, and the hemagglutinin (H), fusion (F), and matrix (M) proteins in the envelope (Grubman et al, 1988). With the exception of the L protein, which has not been characterized antigenically, cross-reactivity has been demonstrated among the proteins of rinderpest, measles, and distemper viruses. As has been shown for other members of the Paramyxoviridae, we have demonstrated that both the H and F polypeptides of RPV are essential immunogens for inducing protective immunity (Yilma et al, 1988; Giavedoni et al, 1991).

There are a large number of strains of RPV exhibiting varying degrees of pathogenicity. However, all strains induce cross-neutralizing antibodies, and immunization with one strain provides protection against all known strains of the virus.

Major means of control in countries free of the disease is by quarantine and strict prevention of the introduction of the disease from endemic countries. If an outbreak occurs, the disease is controlled by immediate quarantine, depopulation, and disinfection (Scott, 1985). In addition, no animal product (including meat) is imported from countries that are known to harbor the disease. High risk countries that are linked to endemic countries by commerce or common border protect their livestock by vaccinating imported cattle, irrespective of their immunization history.

The three types of vaccines currently employed for rinderpest are live attenuated vaccines. The first successful vaccine, the caprinized (goat-adapted), was developed in 1927 by Dr. J. T. Edward at the Mukteswar Campus of the Indian Veterinary Research Institute. (Edwards, 1927). The lapinized (rabbit-adapted) rinderpest vaccine was developed in Korea in the 1950s and is mainly used in Asia outside the Indian subcontinent (Nakamura, et al., 1957). The tissue culture rinderpest vaccine (TCRV) developed by Dr. Walter Plowright in Kenya is exclusively used in Africa and the Middle East and international rinderpest eradication programs. For this vaccine, the Kabete "O" pathogenic strain of RPV was attenuated by numerous passages in primary calf kidney cells. TCRV does not induce detectable clinical disease and provides complete protection for the life of the animal (Plowright and Ferris, 1962; Plowright, 1984). All of the classic vaccines are extremely heat labile and require maintenance of a cold chain. Vaccinia virus is a large, double-stranded DNA virus that packages a complete transcription system and replicates in the cytoplasm of infected cells (Moss, 1990). Vaccinia virus causes a pock lesion on the superficial layer of the skin that initiates as a papule and progresses to a vesicle, a pustule, and finally a dry scab. Generalized lesions are rare but are infrequently observed in immunocompromised individuals. Although millions of people have been vaccinated, often under the most unhygienic conditions, there is no evidence that the virus has established itself in nature (Baxby, 1985). Vaccination is very effective in providing both cell-mediated and humoral immunity. Vaccinia virus has a wide host range, including humans, cattle, horses, swine, sheep, goats, mice, and monkeys.

The strategy for using vaccinia virus as a vector first involves the creation of a plasmid carrying a chimeric gene, a vaccinia virus promoter fused to a foreign protein-coding sequence, and flanked by DNA from a nonessential region of the vaccinia virus genome. The chimeric gene then is incorporated into the vaccinia virus genome by homologous recombination in tissue culture cells that have been transfected with the plasmid and infected with wild-type vaccinia virus (Mackett, et al., 1984).

The Wyeth (the New York City Board of Health) strain of vaccinia virus (clone B-3-1), obtained from Flow Laboratories (McLean, VA), was used exclusively for the generation of the rinderpest recombinants. The choice of the Wyeth strain of vaccinia virus for the construction of the recombinant vaccine was based on its outstanding safety record compared to all other strains utilized during the global eradication of smallpox (Fenner, et al., 1988). Wyeth was the main strain of vaccinia virus used for vaccination against smallpox in the United States during the WHO/UN Campaign. In the United States, the rate of complications was 2-6 per million in primary vaccinees (Lane, 1971).

We have developed a safe and efficacious vaccinia virus double recombinant vaccine, vRVFV, that has met all the requirements of OIE, WHO/UN, FAO/UN, USDA/APHIS, and OAU (OIE, 1989; WHO, 1989; Appendix 2). This vaccine is a highly attenuated vaccinia virus double recombinant that expresses both the F and the H genes (vRVFV) of RPV in the WHO/UN-approved Wyoth strain of vaccinia virus. The details of our work have recently been published (Giavedoni, et al., 1991).

All animals vaccinated with vRVFV produced SN antibodies to RPV. One month postvaccination, all animals were challenge-inoculated with 10^3 TCID₅₀ of the pathogenic Kabeta "O" strain of RPV. Cattle vaccinated with vRVFV were completely protected from rinderpest, exhibiting no detectable illness and a normal temperature of 38°C. The unvaccinated contacts developed high fever (42°C) by day two and died by day six after challenge. They also developed lesions typical of severe rinderpest, characterized by sloughing and erosion of the epithelial lining of the gastrointestinal tract and bloody diarrhea. Daily monitoring for two weeks detected no clinical disease in vaccinated animals, and the experiment was terminated.

We have unequivocally demonstrated that the double recombinant, vRVFV, provides complete protection to vaccinated cattle against a challenge inoculation of 1000 times the lethal dose of RPV. Indicating the enormity of the virus load, no contact or control animals survived beyond six days postchallenge inoculation. We have also shown that vaccination with vRVFV completely protects goats against challenge with the related morbillivirus PPRV. This was interesting since the vaccination induced detectable antibody only to RPV and not to PPRV.

In other experiments we have demonstrated that baculovirus-expressed RPV F and H proteins were not protective to cattle despite the induction of SN antibodies after vaccination with these proteins. Similarly, expressing the F and H genes of RPV in a fowlpox vector gave only partial immunity to challenge-inoculation.

During the global eradication of smallpox, scarification or mass administration using a jet gun was effectively used for vaccination of millions of people. In this study, we plan to vaccinate by intradermal inoculation and scarification. Future plans include evaluation of the effectiveness of oral immunization of wildlife and cattle.

The long term objective of the quarantine field test is to gather information over a five year period on the efficacy and safety of vRVFV for vaccination against rinderpest as recommended in the "Report of the Expert Consultation on Requirements for Vaccinia-Rinderpest Recombinant (VRR) Vaccines" (OIE, 1989). This proposal will cover the initial year of this objective and if the results are promising, we hope to extend the project to complete the OIE requirements for evaluating a new vaccine.

The principal investigator will be responsible for providing the recombinant vaccinia virus, vRVFV, and providing expertise on the vaccine and testing. The collaborators will be responsible for testing the vaccinated cattle for resistance to challenge-inoculation of virulent RPV and antibody responses to RPV by SN and ELISA. They will also test the blood of the test animals for the presence of the RPV by virus isolation.

V. END OF PROJECT-STATUS:

The timely progress of the project will be monitored by regular quarterly reports on the project, and by published manuscripts in refereed journals.

VI. PROJECT TIME FRAME:

The first fifth of the project will be completed during this one year funding period.

VII. BENEFITS TO USAID:

The global eradication of rinderpest is a major benefit to the U.S. livestock industry in preventing this devastating disease from getting a foothold in the U.S. Rinderpest does not respect national boundaries, and the best and the cheapest protection is prevention while it is still abroad. In addition, rinderpest outbreaks lead to major economic and political instabilities in developing countries, and such catastrophes are the causes of major disruption in international trade. Collaborations will prove beneficial to the United States in opening new markets for both Africa and the United States for livestock products from both countries.

VIII. REFERENCES

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2. Edwards, J. T: Rinderpest: some points of immunity. Transactions of the Far Eastern Association of Tropical Medicine. 7th Congress held in India. 3: 707-717, 1927.
3. Penner, F., Henderson, D.A., Arita, I., Jezek, Z., and Ladnyi, I.D: Smallpox and its eradication. World Health Organization, Geneva, 1988.
4. Glavedoni, L., Jones, L., Nebus, C., Yilma T: A vaccinia virus double recombinant expressing F and H genes protects cattle against rinderpest and causes no pock lesions. Proc. Natl. Acad. Sci. USA 88: 8011-8015, 1991.
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IX. BUDGET:

See attached.

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STANDARD PROVISIONS

STANDARD PROVISIONS FOR
GRANTS TO PUBLIC INTERNATIONAL ORGANIZATIONS

- | | |
|------------------------------------|--|
| 1. Allowable Costs | 9. Publications |
| 2. Refunds | 10. Audit and Records (Select and include only the applicable version as specified in the applicability statement of the provision.) |
| 3. Revision of Grant Budget | 11. Payment (Select and include only the applicable version as specified in the applicability statement of the provision.) * |
| 4. Termination Procedures | |
| * 5. U.S. Officials Not to Benefit | |
| 6. Nonliability | |
| 7. Amendment | |
| 8. Notices | |

1. ALLOWABLE COSTS (JULY 1988)

a. The grantee shall be reimbursed for costs incurred in carrying out the purposes of this grant which are reasonable, allocable, and allowable.

(1) Reasonable shall mean those costs that do not exceed those which would be incurred by an ordinarily prudent person in the conduct of normal business.

(2) Allocable shall mean those costs which are necessary to the grant.

(3) Allowable shall mean those costs which are reasonable and allocable, and which conform to any limitations set forth in this grant.

b. Prior to incurring a questionable or unique cost, the grantee is encouraged to obtain the grant officer's written determination as to whether the cost will be allowable.

2. REFUNDS (JULY 1988)

a. The grantee is encouraged to utilize interest bearing accounts where feasible and shall remit to AID all interest earned on funds provided by AID

b. Funds obligated by AID but not disbursed to the grantee at the time the grant expires or is terminated shall revert to AID, except for such funds encumbered by the grantee by a legally binding transaction applicable to this grant. Any funds advanced to but not expended by the grantee at the time of expiration or termination of the grant shall be refunded to AID except for such funds encumbered by the grantee by a legally binding transaction applicable to this grant.

c. If, at any time during the life of the grant, or as a result of final audit, it is determined that AID funds provided under this grant have been expended for purposes not in accordance with the terms of this grant, the grantee shall refund such amount to AID

3. REVISION OF GRANT BUDGET (JULY 1988)

a. The approved grant budget is the financial expression of the grantee's program as approved during the grant award process.

b. The grantee shall immediately request approval from the grant officer when there is reason to believe that within the next 30 calendar days a revision of the approved grant budget will be necessary for any of the following reasons:

(1) To change the scope or the objectives of the project and/or revise the funding allocated among project objectives.

(2) Additional funding is needed.

(3) The grantee expects the amount of AID authorized funds to exceed its needs by more than \$5,000 or five percent of the AID award, whichever is greater.

c. Except as required by other provisions of this grant specifically stated to be an exception from this provision, the Government shall not be obligated to reimburse the grantee for costs incurred in excess of the total amount obligated under the grant. The grantee shall not be obligated to continue performance under the grant (including actions under the "Termination Procedures" provision) or otherwise to incur costs in excess of the amount obligated under the grant, unless and until the grant officer has notified the grantee in writing that such obligated amount has been increased and has specified the new grant total amount.

4. TERMINATION PROCEDURES (JULY 1988)

This agreement may be terminated, in whole or in part, by either party at any time upon 30 days written notice of termination. Upon receipt of and in accordance with a termination notice from the grant officer, the grantee shall take immediate action to cease all expenditures financed by this grant and to cancel all unliquidated obligations if possible. Further, upon receipt of notice of termination, the grantee shall not enter into any further obligations under this grant. Except as provided below, no further reimbursement shall be made after the effective date of termination. The grantee shall within 30 days of the effective date of termination repay to the Government all unexpended AID funds which are not otherwise obligated by a legally binding transaction applicable

to this grant. Should the funds paid by the Government to the grantee prior to the effective date of termination be insufficient to cover the grantee's obligations in a legally binding transaction, the grantee may submit to the Government within 90 days after the effective date of termination a written claim for such amount. The grant officer shall determine the amount(s) to be paid by the Government to the grantee under such claim in accordance with the "Allowable Costs" provision of this grant.

5. U.S OFFICIALS NOT TO BENEFIT (JULY 1988)

No member of or delegate to the U.S. Congress or resident U.S. Commissioner shall be admitted to any share or part of this grant or to any benefit that may arise therefrom.

6. NONLIABILITY (JULY 1988)

AID does not assume liability for any third party claims for damages arising out of this grant.

7. AMENDMENT (JULY 1988)

The grant may be amended upon mutual consent of the parties by formal modifications to the basic grant document or by means of an exchange of letters between the grant officer and an appropriate official of the grantee.

8. NOTICES (JULY 1988)

Any notice given by AID or the grantee shall be sufficient only if in writing and delivered in person, mailed, or cabled as follows:

To the AID grant officer, at the address specified in the grant.

To grantee, at grantee's address shown in the grant or to such other address designated within the grant.

Notices shall be effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

9. PUBLICATIONS (JULY 1988) *

(This provision is applicable when publications are financed under the grant.)

a. If it is the grantee's intention to identify AID's contribution to any publication resulting from this grant, the grantee shall consult with AID on the nature of the acknowledgement prior to publication.

It is understood that financial records, including documentation to support entries on accounting records and to substantiate charges against the grant, shall be maintained in accordance with the Grantee's usual accounting procedures, which shall follow generally accepted accounting practices. All such financial records shall be maintained for at least three years after the final disbursement of funds under this grant.

The Grantee confirms that the grant account will be audited in accordance with established procedures under appropriate provisions of the financial regulations and rules of the United Nations.

Any funds disbursed by AID, but not committed by the Grantee prior to the expiration date shall be refunded to AID. Funds not used for the purpose of this Grant shall be refunded to AID by the Grantee.

* 11. PAYMENT (PERIODIC ADVANCE) (OCTOBER 1991)

(This provision is applicable when: (i) the grantee maintains procedures to minimize the time elapsing between the transfer of funds and the disbursement thereof, and (ii) the grantee's financial management system meets generally accepted accounting standards for funds control and accountability.)

a. Periodic advances shall be limited to the minimum amounts needed to meet current disbursement needs and shall be scheduled so that the funds are available to the grantee as close as is administratively feasible to the actual disbursements by the grantee for program costs. Cash advances made by the grantee to secondary recipient or the grantee's field organizations shall conform substantially to the same standards of timing and amount as apply to cash advances by AID to the grantee.

b. The grantee shall submit requests for advances (using SF-270, "Request for Advance or Reimbursement") at least monthly to the paying office specified in the grant letter. Requests shall state the estimated disbursements to be made during the period covered by the request, less the estimated balance of cash on hand at the beginning of the period and the advance amount being requested.

c. The grantee shall submit a "Financial Status Report" (SF-269A) quarterly, no later than 30 days after the end of the period, to the paying office specified in the grant letter. The report shall show disbursements, advances received, and any cash remaining on hand for the period covered by the report. Within 90 days following the expiration of the grant, the grantee shall submit a SF-269A showing total disbursements, total advances received, and any cash remaining on hand, which will be refunded to AID. *

- * d. If at any time, the AID Controller determines that the grantee has demonstrated an unwillingness or inability to: (1) establish procedures that will minimize the time elapsing between cash advances and the disbursement thereof, (2) timely report cash disbursements and balances as required by the terms of the grant, and (3) impose the same standards of timing of advances and reporting on any subrecipient or any of the grantee's overseas field organizations; the AID Controller shall advise the grant officer who may suspend or revoke the advance payment procedure.

11. PAYMENT (COST-REIMBURSEMENT) (JULY 1988)
(This provision is applicable when the grantee does not meet the standards for a letter of credit or for periodic advances)

The grantee shall submit to the paying office indicated in the grant letter an original and 3 copies of SF 1034, "Public Voucher for Purchases and Services Other Than Personal" and SF 1034A, Continuation of SF 1034, normally once a month, but in any event no less than quarterly. Each voucher shall be identified by the grant number and shall state the total costs for which reimbursement is being requested.

11. PAYMENT (LETTER OF CREDIT) (JULY 1988) *
(This provision is applicable when a Letter of Credit is requested by the grantee and approved by AID's Office of Financial Management.)

a. Payment under this grant shall be by means of a Letter of Credit (LOC) in accordance with the terms and conditions of the LOC and any instructions issued by the AID Office of Financial Management, Program Accounting and Finance Division (FA/FM/CMP).

b. As long as the LOC is in effect, the terms and conditions of the LOC and any instructions issued by FA/FM/CMP constitute the payment conditions of this grant superseding and taking precedence over any other clause of this grant concerning payment.

c. If the LOC is revoked, payment may be made on a cost-reimbursement basis, in accordance with paragraph e. of this clause.

d. Revocation of the LOC is at the discretion of FA/FM/CMP after consultation with the grant officer. Notification to the recipient of revocation must be in writing and must specify the reasons for such action. The recipient may appeal any such revocation to the grant officer, in accordance with the Disputes clause of this grant. Pending final decision, payments under the contract will be in accordance with paragraph e. of this clause

e. If the LOC is revoked, the grantee shall submit to the AID Controller an original and 3 copies of SF 1034, "Public Voucher for Purchases and Services Other Than Personal" and SF 1034A, Continuation of SF 1034, normally once a month, but in any event no less than quarterly. Each voucher shall be identified by the grant number and shall state the total costs for which reimbursement is being requested.

1. Cooperating Country Worldwide	2. P.I.O/T No. 936-4200 369068	3. P.I.O/T Amend No. Original
4. Project/Activity No. and Title 936-4200 Agriculture Program Development and Support (Vavilov Emergency Fund) Doc. # 42000	5. Appropriation Symbol(s) 72-112/31037	
7. Pro Ag No. or Project Authorization Date PAF signed 2/17/93	6. Budget Plan Code(s) DES2-93-16900-KG-11(270-36-099-00-69-31)	
9. Project Assistance Completion Date (Month, Day, Year) 9/30/01	8. Obligation Status [X] Administrative Reservation [] Implementing Document	
11. Type of Action and Governing A.I.D. Handbook [B]	10. Authorized Agent FA/OP/B/LA	12. Contract/Grant/Cooperative Agreement/Reference Number (if this P.I.O/T is for an order or a modification to an award) TBD
A. A.I.D. Contract (HB14) B. A.I.D. Grant or Cooperative Agreement (HB 13)	C. PASA/RSSA (HB 12) D. Other	

13. A.I.D. Funding (Attach a detailed budget in support of column (2) as Attachment A.

	(1) Previous Total	(2) Increase	(3) Decrease	(4) Total to Date
A. Dollars	-	\$400,000	-	400,000
B. U.S.-Owned Local Currency				

14. Mission References

15. Instructions to Authorized Agent Request that you negotiate a two-year grant with the Consultative Group on International Agricultural Research (CGIAR Secretariat at the World Bank) to support the emergency fund for Vavilov Institute of Plant Industry, Russia to preserve world plant genetic resources. Attachments in support of this request are: 1) Letter of request, 2) proposal, and 3) budget.

Vouchers: Address S.F. 1034 submission as shown in block 16 and include:
 Project #: 936-4200 Grant #: TBD
 Project Officer: Robert Bertram Obligation #: 3692468

16. Address of Voucher Paying Office Agency for International Development, FA/FM/CAR/DC & Room 700, SA-2, Washington, D.C. 20523

17. Clearances - Include typed name, office symbol, and date for all clearances

OFFICE OF FINANCIAL MANAGEMENT

A. The Project Officer certifies (1) that the specifications in the statement of work or program description are technically adequate, and (2) that (for contract actions only) all program personnel who are defined as procurement officials under 41 U.S.C 423 have signed the Procurement Integrity Certification (OF-333).

Signature R&D/AGR/IARC, Robert Bertram *RB* 4/11/93 Date: DATE: 5/10/93 INITIALED RA Phone No. 703/87514070

B. The statement of work or program description lies within the purview of the initiating office and approved agency programs.
 Signature: R&D/AGR, H.P. Peterson date: 4/14/93

C. R&D/AGR, A. Hurdus *APH* Date: 4/14/93

D. Funds for the services requested are available FA/FM/A/NPA&PA
 Signature: R. Anderson date: 4/13/93

E. R&D/AGR, M. Blakeney Date: 4/14/93
 Signature: R&D/PO, G. Standrod *GS* Date: 4/26/93

18. For the Cooperating Country: The terms and conditions set forth herein are hereby agreed to:

Signature: Title: Date:

19. For the Agency for International Development:
 Signature: *Elizabeth P. Roche* R&D/PO/PR, Elizabeth P. Roche Title: Chief Date: 5/6/93

FOR CONTRACT ACTIONS ONLY: SOURCE SELECTION INFORMATION--SEE FAR 23.104. THIS DOCUMENT, OR PORTIONS THEREOF, CONTAINS PROPRIETARY OR SOURCE SELECTION INFORMATION RELATED TO THE CONDUCT OF A FEDERAL AGENCY ACQUISITION, THE DISCLOSURE OF WHICH IS RESTRICTED BY LAW (41 U.S.C. 423). UNAUTHORIZED DISCLOSURE OF THIS INFORMATION MAY SUBJECT BOTH THE DISCLOSER AND RECIPIENT TO CONTRACTUAL CIVIL, AND/OR CRIMINAL PENALTIES AS PROVIDED BY LAW.
 FOR OTHER ACTIONS: UNAUTHORIZED DISCLOSURE OF PROPRIETARY OR SOURCE SELECTION INFORMATION MAY SUBJECT AN EMPLOYEE TO DISCIPLINARY ACTION.

AID 1350-11
RECEIVED