

FISCAL YEAR 1943-44

ANNUAL REPORT
OF
THE INTER-AMERICAN INSTITUTE
OF AGRICULTURAL SCIENCES



Main Office

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Washington, D. C.

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Pan American Union
Washington, D. C.
July 1, 1944

REPORT OF THE INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES
TO THE BOARD OF DIRECTORS

In fulfillment of the provisions of Section 2 Article V of the By-Laws of the Inter-American Institute of Agricultural Sciences, I have the honor to submit herewith the Annual Report setting forth the work of the Institute during the fiscal year 1943-44 and containing a budget and statements of the general condition and financial status of the Institute.

The Director of the Institute wishes to express to the Members of the Board of Directors as well as to the other officers of the Institute his grateful appreciation of the unflinching assistance given to him.

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INTRODUCTION

This report for the fiscal year 1943-44 is the second annual report rendered by the Institute to the Board of Directors. The first annual report, issued last September, contained information in regard to the staff of the Institute, the agreement with the Costa Rican Government, the constitution and by-laws of the Washington corporation that governs the Institute, progress of experimental work and construction, fiscal information, and the proposed convention or treaty that was designed to be the permanent governing organization.

Operations were continued throughout the entire fiscal year at both the field headquarters in Turrialba, Costa Rica, and at the rubber substation on Gatún Lake in the Republic of Panama. Throughout the year more than one hundred men were utilized at Turrialba and about twenty-five in Panama for this activity. The construction work, which began in March 1943, continued throughout the fiscal year up until May 19, 1944, when it was discontinued because of lack of funds. However, on July 20th the Institute entered into an agreement (Appendix I) with the Office of the Coordinator of Inter-American Affairs by which this Office agreed to complete the present construction program underway at Turrialba.

The Institute is a scientific educational organization for the

training of students and undertaking of agricultural research primarily for the undeveloped tropics of this hemisphere. In addition, it plans to coordinate as much as is feasible the agricultural research and training in the tropics. The first year after the Institute opens its doors twenty-five graduate students from all the countries of this hemisphere will be awarded fellowships for training in agricultural research.

There has not been much change in personnel. Mr. Rex A. Pixley, Business Manager, resigned in August, 1943, to accept an appointment by the Government of Iran. Because of lack of funds, his position was not filled until May, 1944, when Mr. Rice B. Ober, formerly of the Office of the Coordinator of Inter-American Affairs, was appointed. He is now actively in charge of the work at Turrialba, Costa Rica.

Mr. Robert Squibb, a graduate of the University of California and a livestock specialist of the Office of the Coordinator of Inter-American Affairs in El Salvador, was appointed assistant animal husbandryman and is now in Turrialba. Arrangements have been completed for the appointment of Mr. A. O. Rhoad as head of the Department of Animal Industry at Turrialba. At the present time Mr. Rhoad is Director of the Iberia Livestock Experiment Farm, Jeanerette, Louisiana. He has had wide experience in Brazil and other Latin American countries in the improvement of livestock, particularly in tropical regions and is, therefore, highly qualified to take up his new duties. It is expected that Mr. Rhoad will proceed to Turrialba around the first of October.

The Institute continues to operate under the District of Columbia Corporation which was formally granted on June 18, 1942. It was the intention

that the Institute would operate as a District of Columbia Corporation until the Convention or Treaty which would convert it into a truly inter-American organization had been put into effect. Since the necessary five American States (Costa Rica, El Salvador, Guatemala, Nicaragua, and the United States) have ratified the Convention, as soon as the required deposits are made by all ratifying states, and the three month's period after the deposit of the fifth ratification with the Pan American Union elapses, the Convention will be in effect. It is expected that the necessary five deposits will be received at the Pan American Union not later than September 15th.

A brief chronological report of the Institute is as follows:

- May 15, 1940: A resolution passed by the Eighth American Scientific Congress held in Washington recommended the establishment of an Inter-American Institute of Tropical Agriculture.
- June 5, 1940: Appointment by the Governing Board of the Pan American Union of the Inter-American Committee on Tropical Agriculture, known as the Organizing Committee, to consider the establishment of the Institute.
- September, 1941 to March, 1942: A Technical Committee of the United States Department of Agriculture, appointed by the Organizing Committee, visited eleven countries in Latin America to examine sites offered for field headquarters.
- April 15, 1942: Recommendation of Turrialba, Costa Rica, as site for the Institute by the Technical Committee of the United States Department of Agriculture.

- June 18, 1942: District of Columbia formally granted a charter for a non-profit corporation to handle affairs of the Institute.
- June 30, 1942: The Office of the Coordinator of Inter-American Affairs made a grant of \$465,000 to construct and operate the Institute during its first year of activity.
- October 7, 1942: The Governing Board of the Pan American Union formally approved the recommendations of the Inter-American Committee on Agriculture (Organizing Committee) and the Institute was inaugurated under their auspices. Dr. Earl N. Bressman was appointed Director and Mr. José L. Colom, Secretary.
- December 16, 1942: The Congress of Costa Rica approved and ratified a contract between the Institute and their government for the operation in that country which gave the Institute 2,500 acres of productive land valued at \$425,000.
- March 19, 1943: President Rafael A. Calderón Guardia of Costa Rica and Vice President Henry A. Wallace of the United States, dedicated the Institute in a ceremony at Turrialba, Costa Rica.
- July 1, 1943: A substation of the Institute opened at Gatún Lake in the Republic of Panama and operated with funds granted by the Rubber Development Corporation, an agency of the United States Government.

July 15, 1943: A formal contract was made for the construction of the buildings of the Institute. The following is the authorized construction program: Student's dormitory, six faculty residences, streets and parks, water supply investigation, light and power investigation, lumber shed, temporary office, seed house, ten houses for key labor personnel, sewage system, lath-glass-potting house, temporary water supply, concrete pipe plant operation, lagoon spillway, temporary light plant, warehouse for construction material, guest house, freight, wharfage and customs agent, handling material and small jobs, general engineering expenses, general supervision and office expenses.

August 23, 1943: A formal contract was signed between the Government of the Republic of Panama and the Institute for the operation of the rubber substation in that country.

January 1944: The following is the staff of the Institute:

Dr. Earl N. Bressman, Director
Mr. José L. Colom, Secretary
Mr. Lowell Curtiss, Treasurer
Mr. Rice B. Ober, Business Manager
Mr. Robert A. Nichols, Superintendent
Mr. V. C. Pettit, Purchasing Engineer
Mr. Joseph Fennell, Horticulturist
Mr. Robert Squibb, Assistant in Animal Husbandry
Mr. George Slater, Field Superintendent (Panama)
Mr. Oscar Echandi, Field Superintendent (Turrialba)
Mr. Jorge Granados, Office Assistant (Turrialba)

January 15, 1944: Convention on the Inter-American Institute of Agricultural Sciences opened for signature and signed by the following countries: Costa Rica, Nicaragua, Panama and the United States of America.

April 15, 1944: The Office of the Coordinator of Inter-American Affairs grants \$85,000 for expenses of operations.

May, 1944: Four divisions of work being set up under the best scientific staff obtainable in this hemisphere are as follows:

Division of Animal Industry

Division of Agricultural Engineering

Division of Plant Industry and Soils

Division of Economics and Rural Life

June 30, 1944: The Convention has been signed by twelve Republics, namely: Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, the United States and Uruguay, and ratified by El Salvador, Guatemala, Costa Rica and the United States.

The officers of the Institute wish to take this opportunity to thank those individuals and organizations that have given unfailing support to the Institution. Special mention should be made of the continued assistance and help of the Governments of Costa Rica, the United States and Panama. Particularly to the Office of the Coordinator of Inter-American Affairs who made this project possible by granting the initial funds to start construction and operations, and to the Departments of State and Agriculture for their most valuable guidance and advise in all matters pertaining to the organization of the Institute. Dr. L. S. Rowe, Director General of the Pan American Union, has been unusually helpful in all matters pertaining to the establishment of this inter-American organization. His guidance and helpfulness through is many years of experience in inter-American affairs have helped both the Organizing Committee of the Institute and its officers.

THE CONVENTION

After consultation with the governments of all the American Republics the Convention or Treaty for the Inter-American Institute of Agricultural Sciences was approved by the Governing Board of the Pan American Union on December 15, 1943, and opened for signature to the governments of the American Republics on January 15, 1944. On this date it was signed by Costa Rica, Nicaragua, Panama and the United States. Up to the present time twelve countries have subscribed to the Convention, namely: Costa Rica, Cuba, Chile, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, United States, and Uruguay; and five have ratified--Guatemala, El Salvador, Costa Rica, the United States and Nicaragua.

Three months after the deposit of the fifth ratification the Convention shall come into force, thereby permanently establishing an inter-American body which has been needed for a long time to conduct the necessary basic research in agriculture and allied sciences in the Western Hemisphere.

Besides the countries that have signed and ratified the treaty, Bolivia approved the text of the Convention, and it is expected at any time that the official representative of the Bolivian Government in Washington will receive powers to sign the instrument. (On July 12, 1944, Bolivia signed the Convention.) The government of Venezuela also approved the treaty, making only one objection in connection with the maintaining of the individual rights of the states on the question of exemption from

taxation. Most of the countries of the hemisphere expressed their interest in the Institute and as time goes on, it is expected that all of the Republics will join the organization.

As can well be understood little time has elapsed since this Convention was opened for signature last January.

The report of the Secretary of State to the President of the United States under date of March 29, 1944, gives an excellent digest of the Institute's background and the terms of the Convention. It is as follows:

The undersigned, the Secretary of State, has the honor to lay before the President, with a view to its transmission to the Senate to receive the advice and consent of that body to ratification, if his judgment approve thereof, a certified copy of a convention on the Inter-American Institute of Agricultural Sciences, opened for signature in the Spanish, English, Portuguese, and French languages at the Pan American Union in Washington on January 15, 1944. The convention was signed on behalf of the United States of America, Costa Rica, Nicaragua, and Panama on January 15, 1944; on behalf of Cuba and Ecuador on January 20, 1944; on behalf of the Dominican Republic and Honduras on January 28, 1944; on behalf of El Salvador on February 18, 1944; and on behalf of Guatemala on March 16, 1944. All of the aforementioned signatures except those of the Dominican Republic, El Salvador, Guatemala and Honduras are shown in the certified copies of the convention which the Pan American Union has supplied to this Government in accordance with article XV of the convention. The convention remains open for signature on behalf of the governments of the other American republics.

The provisions of the convention are designed to establish the

Inter-American Institute of Agricultural Sciences as a permanent international cooperative enterprise of the American republics by obtaining recognition of the status of the Institute in each of those republics, encouraging increased participation by them in the activities and functions of the Institute, and providing for its financial support on a quota basis.

The Inter-American Institute of Agricultural Sciences was established in recognition of the steadily increasing need for an organization in which the problems of the agricultural and related sciences of the American republics can be studied on a scientific basis as a means of improving the economy of the nations of this hemisphere. At the Eighth American Scientific Congress held in Washington in May 1940, the Secretary of Agriculture outlined a cooperative program for the advancement of education and research in the field of agriculture in the American republics. The cooperative agricultural program and its advancement through the instrumentality of an institute were endorsed at the Eighth American Scientific Congress by a resolution recommending the establishment of an inter-American institute of tropical agriculture.

Pursuant to the above mentioned resolution, the Governing Board of the Pan American Union on June 5, 1940, appointed the Inter-American Committee on Tropical Agriculture and entrusted it with the organization of the Inter-American Institute of Agricultural Sciences.

A technical committee appointed under the direction of the Secretary of Agriculture, at the request of the Inter-American Committee on Tropical Agriculture, investigated each of the sites offered by the Governments of Bolivia, Brazil, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, Nicaragua, and Venezuela for the establishment of

the Institute. The technical committee recommended that the site offered in Turrialba, Costa Rica, be selected as the one best adapted to the needs of the Institute.

At its session of June 4, 1942, the Governing Board of the Pan American Union approved a report of the Inter-American Committee on Tropical Agriculture recommending a certificate and bylaws for the establishment of the Institute as a corporation under the laws of the District of Columbia. That report and the recommendation that the site in Turrialba be accepted were submitted to the governments, members of the Union, and were approved by this Government.

On June 18, 1942, the Institute was established as a nonprofit, non-stock, membership corporation under the laws of the District of Columbia. The certificate of incorporation and bylaws, under which the Institute is now functioning, contain in part provisions to the effect that--

- (1) The term of existence of the Institute shall be perpetual but that its existence may be modified by the members of the Institute following the conclusion of a treaty or convention between the governments of the American republics providing for the establishment and maintenance of an organization having purposes similar to those of the Institute.
- (2) The business and objectives of the Institute are to encourage and advance education and sciences in the American republics through teaching, research, experimentation, extension activities, general education and training in the art and science of agriculture, and other related arts and sciences.

- (3) Until a treaty or convention is signed the membership of the Institute shall consist of the representatives of the 21 American republics on the Governing Board of the Pan American Union, presided over by its Chairman.
- (4) The officers of the Institute shall be a Director, elected by the members for a term of 3 years, and a secretary appointed by the Director with the approval of the members.
- (5) The Pan American Union shall act as fiscal agent for the Institute.
- (6) There shall be a Technical Advisory Council composed of a representative of each of the American Republics.
- (7) The Institute is an educational, scientific, and charitable organization and is formed for purposes other than profit.

The present convention contains substantially the principal provisions of the certificate of incorporation and bylaws of the Institute, with a number of new provisions and modifications, the most important of which relate to recognition of the Institute as a legal entity in each of the contracting states (art. I), voting by the board of directors (art. III), the establishment of an administrative committee (art. III), an increase of the term of the Director from 3 years to 6 years (art. IV), limitation of representation on the Technical Advisory Council to contracting states (art. VII), the payment of annual quotas by the contracting states (art. IX), extension of the franking privilege to the Institute (art. XI), exemption from taxation for the Institute (art. XII), movement of funds of the Institute (art. XIII), and the treatment to be accorded to personnel and students of the Institute (art. XIV).

Article XV provides that the convention shall be ratified and shall come into force 3 months after the deposit of not less than five ratifications with the Pan American Union. Under the provisions of article XVI the convention may be denounced by any contracting state, such denunciation to take effect 1 year after the date of the receipt of the notice thereof by the Pan American Union with respect to the State giving it, but the convention will remain in force with respect to all the other contracting states.

The text of the convention and the signature thereof on behalf of this Government were approved by the Secretary of Agriculture. The Coordinator of Inter-American Affairs has expressed his continuing interest in the success of the Institute and has stated that in order to give the Institute permanent international status and to provide for its maintenance it is essential that the convention be concluded.

On March 19, 1943, the cornerstone was laid for the first permanent building of the Institute at its field headquarters in Turrialba, Costa Rica. The site in Turrialba, contributed by the Government of Costa Rica in 1942 and 1943, consists of a coffee plantation and other property totaling 2,500 acres. In 1943, with the assistance of a grant from the Rubber Development Corporation, the Institute acquired a rubber plantation in Panama where important research in rubber is now being carried on in cooperation with the Bureau of Plant Industry of the United States Department of Agriculture.

The text of the treaty is as follows:

CONVENTION ON THE INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

The Governments of the American Republics, desiring to promote the advancement of the agricultural sciences and related arts and sciences; and wishing to give practical effect to the resolution approved by the Eighth American Scientific Congress held in Washington in 1940, recommending the establishment of an Inter-American Institute of Tropical Agriculture, have agreed to conclude a Convention in order to recognize the permanent status of the Inter-American Institute of Agricultural Sciences, hereinafter referred to as "the Institute," on the basis of the following Articles:

Article I

The Contracting States hereby recognize the permanent status of the Inter-American Institute of Agricultural Sciences, incorporated under the laws of the District of Columbia, United States of America, on June 18, 1942; and they agree to recognize the Institute as a legal entity in accordance with their own legislation. The Institute shall have all the rights, benefits, assets, lands and other property to which it was or may be entitled as a corporation, and shall assume all the obligations and contracts for which it became responsible as a corporation.

The executive headquarters of the Institute shall be located in Washington, D. C. The principal field headquarters of the Institute shall be located in Turrialba, Costa Rica. Regional offices of the Institute may be maintained throughout the American Republics.

PURPOSES

Article II

The purposes of the Institute are to encourage and advance the development of agricultural sciences in the American Republics through research, teaching and extension activities in the theory and practice of agriculture and related arts and sciences.

In furtherance of these purposes the Institute may, subject to the laws of the several countries, exercise the following powers: To develop, finance and operate similar establishments and installations in one or more of the American Republics; to give assistance in the establishment and maintenance of organizations having similar purposes in the said Republics; to purchase, sell, lease, improve or operate any property in the American Republics, in accordance with the purposes of the Institute; to collaborate with the Government of any American Republic, or with any other organization or entity, and to give assistance to the same; to receive contributions and donations of money or property, both real and personal; to enter into and carry out contracts and agreements; to raise or acquire and, in any manner, dispose of all agricultural commodities and products thereof essential for experimental or research purposes; and to carry on any other business or activity appropriate to the foregoing purposes.

THE BOARD OF DIRECTORS

Article III

The representatives of the twenty-one American Republics on the Governing Board of the Pan American Union shall serve as members of the Institute, and shall be considered as members of the Board of Directors thereof. In the event that any member is unable to attend a meeting of the Board of Directors the said member or his government may designate an alternate for that purpose. The decisions of the Board shall be adopted by a majority vote of its members, which majority vote shall include the votes of a majority of the members representing Contracting States. The Board shall have, among others, the following functions:

To elect the Director of the Institute and to approve the appointment of the Secretary made by the Director.

To remove both the Director and the Secretary.

To determine the compensation of the Director and the Secretary.

To supervise the activities of the Director, who shall be responsible for carrying out all orders and resolutions of said Board.

To appoint and define the duties and compensation of an administrative committee consisting of not more than eight persons, of whom one shall be the Director of the Institute ex officio. The members of this administrative committee need not be members of the Board of Directors.

To approve the budget for the administration of the Institute to be submitted annually by the Director.

To fix the annual quotas of the Institute.

The Board shall receive an annual report from the Director upon the activities of the Institute as well as upon its general condition and financial status.

OFFICERS

Article IV

The Institute shall have a Director and a Secretary. The Director shall be elected by the Board of Directors in plenary session for a term of six years; he may be reelected one or more times. The first term of the Director under the provisions of this Convention shall begin as of the day on which this Convention enters into force.

The Secretary shall be appointed by the Director with the approval

of the Board of Directors of the Institute and shall be directly responsible to the Director.

The Director and the Secretary shall hold office until their respective successors shall be chosen and shall qualify; but they may be removed by vote of the majority of the members of the Institute.

THE DIRECTOR

Article V

1. The Director under the supervision of the Board of Directors shall have ample and full powers to direct the activities of the Institute; and he shall be responsible for carrying out all orders and resolutions of said Board.

2. The Director under the supervision of the Board of Directors shall be the legal representative of the Institute; and he may legalize, with the seal of the Institute, all contracts, conveyances and other instruments which require such legalization and which in his opinion are necessary and advantageous to the operation of the Institute. In addition, he shall be authorized to take any other step necessary to validate such instruments as may be required or permitted by law. The Director may grant powers to others for all those acts which he cannot perform personally.

3. The Director, under the supervision of the Board of Directors of the Institute, shall have the power to appoint, remove, and determine the compensation of employees.

4. The Director shall prepare the budget of the Institute for each fiscal year, and submit it to the Board of Directors at least two months before the annual meeting at which it will be considered for approval.

5. The Director shall submit an annual report to the Board of Directors of the Institute two months before the annual meeting, setting forth the work of the Institute during the year and its general condition and financial status, and he shall submit to the approval of the said Board the budget and the plans for the following year.

THE SECRETARY

Article VI

The secretary shall keep the minutes and records of the Institute, shall exercise all prerogatives and carry out all administrative duties assigned to him by the Director.

TECHNICAL ADVISORY COUNCIL

Article VII

Provision is made for the establishment of a Technical Advisory Council, as follows:

1. Each of the Contracting States may appoint an agricultural expert to be its representative in the Technical Advisory Council of the Institute. This Council shall cooperate with the Director on agricultural matters of a technical nature. The appointment of each representative shall be officially notified to the Secretary of the Institute. The members of the Council shall serve for a period of five years at the will of their respective governments, and may be reappointed one or more times.

2. The Technical Advisory Council shall meet at least once a year, under the chairmanship of the Director of the Institute, at such place as the activities, of the Institute may require. The Director may call special meetings of the Council on his own initiative, whenever the best interests of the Institute may require. Notice with respect to any meeting shall be given at least two months in advance and shall state the purpose or purposes of the proposed meeting. A majority of the members of the Council shall constitute a quorum.

3. No member of the Technical Advisory Council, as such, shall receive from the Institute any pecuniary compensation for his services, although the Institute may defray traveling expenses of the members of the Council to the annual meeting.

FISCAL AGENT

Article VIII

The Pan American Union shall act as fiscal agent for and on behalf of the Institute, and as such shall receive and disburse the funds of the Institute.

MAINTENANCE OF THE INSTITUTE

Article IX

The income of the Institute for its maintenance and operation shall consist of annual quotas paid by the Contracting States, as well as of legacies, donations and contributions which the Institute may accept. Such funds and contributions shall be used only for purposes in keeping with the character of the Institute.

The annual quotas shall be determined by the Board of Directors of the Institute provided the vote is unanimous with respect to the members representing the Contracting States. The amounts of the respective quotas shall be in proportion to the population of each Contracting State, on the basis of the latest official statistics in possession of the Pan American Union

on the first day of July of each year.

The annual quota payment of each Contracting State shall not exceed one dollar United States currency per one thousand of the total population of that State. The quota payments may, however, be increased by unanimous recommendation of those members of the Board of Directors who represent Contracting States and the approval by the appropriate authorities of each of the Contracting States of the increased quota of that State.

The quotas shall be communicated annually by the Pan American Union to the Governments of the Contracting States, and shall be paid before the first of July of each year.

The quota payments of each Contracting State shall commence on the day on which this Convention enters into force with respect to that State, prorated according to the number of full calendar months remaining in the current fiscal year.

The fiscal year of the Institute shall begin on the first day of July of each year.

LANGUAGES

Article X

The official languages of the Institute shall be English, Spanish, Portuguese and French.

POSTAL PRIVILEGES

Article XI

The Contracting States agree to extend to the Institute forthwith the domestic and international franking privilege provided in the existing inter-American postal conventions and to ask the States members of the Pan American Union which have not ratified the present Convention to grant the Institute the same postal privileges.

EXEMPTION FROM TAXATION

Article XII

Lands and buildings in the territory of any of the Contracting States of which the Institute is the legal or equitable owner and which are used exclusively for the purposes of the Institute shall be exempt from taxation of every kind, National, State, Provincial or Municipal, other than assessments levied for services or for local public improvements by which the premises are benefited.

Furniture, equipment, supplies, construction materials and any other articles intended for official use of the Institute shall be exempt in the territory of any of the Contracting States from every form of taxation, including but not limited to customs duties, excise and surtaxes.

All funds and other property used for the purposes of the Institute, and all contracts and other official acts of the Institute within the scope of its purposes shall likewise be exempt from taxation of every kind in the territory of each of the Contracting States.

MOVEMENT OF FUNDS

Article XIII

Each of the Contracting States shall take such measures as may be appropriate to facilitate the movement of funds of the Institute.

EXEMPTIONS AND PRIVILEGES FOR PERSONNEL AND STUDENTS

Article XIV

Each of the Contracting States agrees that it will accord to persons engaged in the work of the Institute or pursuing studies under the auspices of the Institute, such privileges with respect to exemption from taxation and other burdens affecting the entry, travel and residence of such persons as may be appropriate under its laws and regulations.

SIGNATURE AND RATIFICATION

Article XV

1. The original of the present Convention in the English, Spanish, Portuguese and French languages shall be deposited with the Pan American Union and opened for signature by the Governments of the American Republics. The Pan American Union shall furnish a certified copy of the present Convention to each signatory Government and to the Government of each non-signatory State which is a member of the Union. The Pan American Union shall inform all the Governments of the States members of the Pan American Union with respect to all signatures and the respective dates thereof.

2. The present Convention shall be ratified by the signatory States in conformity with their respective constitutional procedures. The instruments of ratification shall be deposited with the Pan American Union, which shall notify all the signatory Governments of each ratification deposited and the date of its deposit.

3. The present Convention shall come into force three months after the deposit of not less than five ratifications with the Pan American Union. Any ratification received after the date of entry into force of the Convention shall take effect one month after the date of its deposit with the Pan American Union.

DENUNCIATION

Article XVI

1. The present Convention shall, subject to the provisions of Paragraph 2 of this Article, remain in force indefinitely, but may be denounced by any Contracting State by a notification in writing to the Pan American Union, which shall inform all the other Contracting States of each notification of denunciation received. After the expiration of one year from the date of the receipt by the Pan American Union of a notification of denunciation by any Contracting State, the present Convention shall cease to be in force with respect to such State, but the Convention shall remain in full force and effect with respect to all the other Contracting States.

2. In the event that the number of Contracting States should be reduced to less than five as the result of denunciations, the remaining Contracting States shall immediately consult with each other with a view to revising the present Convention and with a view to determining the future status of the Institute. If, within two years after the date upon which the number of Contracting States is reduced to less than five, as the result of denunciations, no agreement shall have been reached by the remaining Contracting States regarding the continuation of the Convention and the status of the Institute, the Convention shall, upon the expiration of six months' written notice by any remaining Contracting State, cease to be in force. In the event that the Convention should cease to be in force, the status of the Institute shall be determined by the Governing Board of the Pan American Union.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, having deposited their full powers found to be in due and proper form, sign this Convention in the English, Spanish, Portuguese and French languages at the Pan American Union, Washington, D. C., on behalf of their respective Governments and affix thereto their seals on the dates appearing opposite their signatures.

CONSTRUCTION PROGRAM

The original plans and specifications for the construction of the dormitory, six faculty houses, laborers' homes, together with the future administration building were prepared by the Division of Plans and Services of the United States Department of Agriculture, under the direction of Mr. George Boyd. It is planned that eventually all the necessary structures to afford the full requirements of an institution of the magnitude and responsibilities of the Institute will be built. Such a plant must contain dormitories for students, classrooms, administrative offices, dining and cooking facilities, faculty residences, commissary, library quarters, recreational facilities, laundry, hospital workers' housing, utility plants, farm and dairy buildings, refrigeration plant, etc.

However, it would be impossible to obtain either labor or materials to construct such a plant in a short time, and it was decided to construct only bare minimum facilities before starting actual collegiate work. (Research work was started almost immediately after the Institute was organized.)

It was decided the absolute minimum construction for operation would require a dormitory for men, six faculty houses, ten laborers' cottages, a greenhouse, a small office, seed house, and a guest house. To construct and operate these required the additional construction of a warehouse, a temporary

water system, sewer system and electric system:

The guest house, office, seed house and the warehouse were completed in the previous fiscal year and are described in the Institute report for the fiscal year 1942-43.

The dormitory has been designed as a two-story "T" shaped building with a lobby unit in the center, with bedroom wings on the sides and a kitchen and mess hall unit to the rear. A third floor over the lobby is provided for an assembly hall for small meetings, etc. (However, one bedroom wing consisting of two cubical units is not being built at this time, due to limitations of funds.) The building will be of Spanish Mission type architecture constructed to resist earthquake using solid heavily reinforced concrete walls, floors, etc. The bedroom wing is constructed in two units and the lobby unit is separated from the other units to provide necessary flexibility to withstand earthquake shocks. The portion of the dormitory under construction will contain 24 bedrooms. All bedrooms are planned for two men each and will be large to assure comfort in the warm climate. Each bedroom opens on an interior corridor and on the outside is a screened porch or veranda which will provide a comfortable study place. Modern plumbing and lavatories are being provided. It will be a thoroughly comfortable practical building and as fine as anything outside of the larger cities of Central America.

The Faculty Residences are designed as a one-story house along the conventional "H" plan, having the living room in the center with bedrooms on the sides. Porches are provided between the wings in front of and to the rear of the living room. Each house will have three main bedrooms, two baths,

living room and kitchen. The rear porch, being enclosed is to be used for dining with space being provided in the large living room for formal use. A servant quarter will be attached to each house and will contain two bedrooms, laundry and bath. An open porch garage will be provided on at least some of the houses. These houses will also be in the Spanish Mission type with stucco exterior finish and tile roofs. The houses will have tile floors and wood-beamed living room ceilings with stone fireplaces.

The Workmen's cottages under construction are four rooms and bath of masonry construction with tile roof. They are rectangular in outline with porches included under the main roof in front and back at diagonally opposite corners. The masonry construction was adopted to avoid the excessive upkeep costs which occur in wood construction after a few years' use in this type housing. It is believe to secure and hold good labor it will eventually be necessary to build at least forty more cottages in addition to the ten under construction.

The Propagating House is a long, one-story building constructed mainly of wood strips to provide a partial shade for growing of certain plants. At the rear of the growing room there is a service room of frame and siding construction. The roof of the growing room is supported by trusses made of old rail steel to provide a clear floor space permitting any type of bench arrangement found desirable.

Light Plant -- It is believe the permanent electric system should take advantage of the natural water power possibilities of the site, but such a development will be expensive for the present, since the majority of the costs would be necessary to get waterway, etc., constructed and the only saving

possible for a small load would be the water wheels and generators. Accordingly, it was decided to use some diesel engine generators for a temporary system until war and finances permitted construction of the hydroelectric plant. Later the engines can be held for stand-by service or can be sold. The cost for the engines is very small compared with the hydroelectric plant. The system will be a 2,400 volt A.C. three phase, 60 cycle with transformers reducing to 220 and 110 volt for the buildings.

Sewage System -- A development such as the Institute will require a complete sewage disposal system as the amount of sewage to be disposed of would be excessive for the amount of water in the nearby river. However, such a system requires considerable material now unobtainable due to war, and it will be necessary to use a temporary system until materials are available and the number of buildings has increased. Accordingly, it is the intention to construct separate septic tanks and drainage beds for the dormitory and residences. These will be of concrete, using local material with exception of cement and a few other items.

Water System -- A temporary water supply has been obtained by extending the Turrialba town supply to the property. This was extended with 2" steel pipe, and it is believed it will provide water enough for the present construction program. However, it will be necessary when additional buildings are constructed to provide an additional water supply, and it should be made adequate for all reasonable future needs. One of the possibilities is a separate line to the spring supplying Turrialba which may be the best but will require considerable cast iron pipe which is not obtainable at this time. An intermediate step might be a small stand pipe which would fill

during the night and supplement the flow through the 2" pipe during the time when most water is used.

Roads -- For construction of buildings and operation otherwise it is necessary to have durable and adequate roadways connecting all important points. The cost of doing without the roads is so high that the only logical procedure is to construct them as soon and as adequately as possible. There were few roads on the property when acquired. As the land is used more extensively still more roads will be needed.

Lagoon -- A low spot in the campus which could not be drained without an unreasonable expense has been converted into a lagoon which will be a principal feature of the landscape development of the campus and will also provide an effective mosquito control, as the pool will be deep enough for fish to reach every portion. The cost of constructing the pool has been very low and the results will greatly exceed in effect a similar expenditure for any other landscape treatment.

The Northern Railway Company of Costa Rica have been interested in the development of the Institute and the section of Costa Rica around Turrialba and agreed to construct the buildings for the Institute, using the construction organization and equipment that they already had. Accordingly, a formal contract was made with them for the construction, after requesting offers from other contracting organizations; and it was determined the offer of the Northern Railway Company was the best. The road and lagoon work are being done by the Institute's operational forces.

Construction of buildings in war time is a slow, difficult operation at best, and it is even more so when the construction is in another

country requiring shipment under war time conditions of all materials other than sand, gravel, brick, lumber, and tile. The program for the Institute has not been an exception. Some time has been saved though on construction through the loans of material made by the contractor which were repaid when deliveries from the United States arrived. Both the United Fruit Company Steamship Service and the Northern Railway Company have saved valuable time by expediting deliveries just as much as possible.

However, despite the difficulties of obtaining and transporting materials, etc., in war time, practically all materials for completion of the present program have been delivered to the project and a fair amount of construction was completed before May 19, 1944.

It was necessary to stop all construction on that date, as funds allotted for construction were exhausted and more had not been allotted.

The status of the various parts of the program at the time of stoppage follows:

(a) All outside and all inside concrete walls of the dormitory have been poured to second floor level except for one small section, and the second floor slab has practically all been poured. Concrete forms have been removed and practically all surfaces have been roughened for application of plaster and stucco. Most of the tile partitions on the first floor have been constructed and have been given a cement base coat for plaster base. Reinforcing steel has been placed for second floor concrete walls, columns, etc., and part of the forms for one section of the building above the second floor have been constructed. Practically all of the imported materials have arrived and have been stored. A few roof tile and a small amount of lumber for roof construction,

etc., has been delivered by local producers.

(b) The six faculty houses under construction range from practically complete to the foundation stage. On the most complete, the roof tile are in place and plastering has been completed, but the windows, doors and the tile flooring have not been installed. The least complete house has a small portion of the outside brick walls constructed.

(c) The ten laborers' houses under construction show the same range and the same maximum and minimum of construction as the faculty houses.

(d) The propagating house is entirely completed and in use.

(e) The engines and generators for the light plant have been shipped and should arrive at the site very soon. Most of the transmission line materials are ready for shipment and will move soon as ship space is available. No field work has been done on the light plant.

(f) No work has been done on the temporary sewage system, but some of the pipe is on the site.

(g) Roads have been constructed to connect the guest house, office, greenhouse, etc., with the campus proper and the public roads have been extended on to the laborers' cottages. These are practically complete except for a section along the lagoon where the subsoil was soft and additional fill and surfacing will be needed later. Roads are of a local mixture which is well graded and compacts well, giving a solid surface of pleasing light gray color. Most of the roads have been edged with uncut stone set to line to prevent edges eroding, etc. The road work is practically completed.

(h) The embankment for the lagoon has been completed and the banks riprapped with local stone to prevent erosion and improve appearance. A small section not yet riprapped was to be completed with farm labor in off-season periods.

EXPERIMENTAL WORK

While the construction program is underway opportunity has been taken for establishing the experimental work in the Division of Plant Industry and Soils. This has been primarily in the nature of preliminary work in collecting and establishing large quantities of plant material, both of strategic and food crops. In addition, a large number of plots have been carefully laid out and some preliminary work done on soils. Because of the preliminary nature of the work, it was felt that it can best be shown by giving month by month reports made by the horticulturist in charge.

The large force of laborers, averaging about 150, continue to work on the project of changing the Institute's site from a finca to an educational institution. Although the site at Turrialba is a valuable and beautiful piece of property, it has had very little care during the last five years because the owners had planned for that length of time to dispose of it. The amount of work that is necessary to transform it into a place suitable for the Institute is not small.

July 1943

The month of July (1943) has afforded much valuable information in regard to yields, varietal differences, seasonal influences and general cultural problems of many crops.

Preliminary tests have shown that the soil on which work is being conducted is quite acid, varying from Ph 4.4 to 5.5. There is a serious

deficiency in available phosphorus and this element, together with calcium, appears to be essential for most crops.

In the varietal tests, fifty-four different varieties of beans and cowpeas have been planted and many interesting selections have been made. A few sorts are revealing valuable characters for culture in the tropics.

The crops of greatest promise to date which are new or little known to agriculture in Central America are: Cabbage collards, Carolina pole and Henderson bush lima beans, Florida runner peanuts, edible soybeans, rice beans (related to the cowpea) for cover crop and stock feed, and grapes (new types derived in part from tropical and subtropical wild species.)

It is now becoming evident that with moderate applications of phosphorus and lime and with some insect and disease control a satisfactory yield of nearly all well-known vegetables can be produced in this region. The best adapted and proved varieties of each type of vegetable must, of course, be used since, as with lima beans, a few are quite satisfactory, yet others are completely worthless under tropical conditions.

The best culture for corn, onions, etc., still remains an important and as yet partially unsolved problem. It is believed that many influences, as soil deficiencies, insects and possibly light effects, all play an important part.

In our experiments with corn a recent planting was made of seventy-nine varieties from Guatemala. Many of these at time of germination appear to be more vigorous and have much stronger root development than the local types. Experiments are in progress with the aim of finding ways of escaping the devastating early insect injury on corn through simple cultural methods of practical application by the average farmer.

Initial breeding experiments with the aim of developing better varieties of certain crops have been started and many others are being outlined. The experimental tropical grapes are growing nicely and despite the torrential rains and extreme humidity there is an almost complete absence of disease.

August and September

During the month of August (1943) as a result of four months previous experimentation, data has been accumulated relative to the basic needs for the successful cultivation of nearly all food crops under Turrialba conditions. The area planted to experimental crops at this time is approximately five acres. Thus, obvious progress has been made but the extent of this has been greatly restricted by the inadequacy or total lack of certain simple but highly necessary materials. Probably the foremost need has been that of an adequate supply of fertilizer materials, particularly phosphate. In the best interest of the program a stock pile of super-phosphate of no less than five to ten tons to be made available at the earliest possible opportunity is urgently requested.

As a whole the month of September (1943) like that of August has been one of the most difficult periods of the entire summer season for growing crops. There has been much dry weather and the sun has been extremely hot. Stem-boring insects have been especially prevalent with some otherwise non-affected varieties. However, certain crops such as cowpeas and corn have been decidedly favored by this hot sunny condition. Of the well-known garden vegetables only corn, tomatoes and muskmellon offer serious problems at the present time.

October

In October (1943) it was reported that varietal tests with additional food crops were in progress. Certain of the better selections from

previous plantings were being given more extensive trial under field plot conditions. In all, approximately 7 acres were devoted to food plant experiments at that time.

The continued heat and strong sunlight throughout the month of October proved detrimental to certain recently planted crops, though others prospered under these conditions. The practice of affording no artificial control measures over plant diseases or insect pests is being continued and has facilitated the prompt accumulation of much useful data.

The aim of the food plant research has been based upon the hypothesis that artificial measures of insect and disease control, as by spraying, dusting, etc., is thoroughly impractical in small farming practice in the tropics. The inescapable climatic, economic and human limitations bear this out. Accordingly, every effort is being exerted to discover for future incorporation in new and more rugged varieties all inherent or natural qualities of resistance and to fashion into simple farming practice any cultural or other practical means of pest control.

It has been observed that several of the most important food crops in this region are seriously restricted in production by insects or diseases for which there is no known means of artificial prevention. A very destructive root-worm of corn which obviously has been little if at all previously recognized is being investigated. This pest is probably a species of *Diabrotica* or of a related genus, though it is distinctly different from either of the commonly known North American corn root-worms. Although all corn varieties tested thus far have been badly damaged by this pest there has been some evidence of slight differences in resistance. A collection of Guatemalan sorts have shown

unusual susceptibility while a selection from Puerto Rico has evidenced slightly better resistance than even the local Costa Rican kinds. Mr. Fennell informs us that he has little information at this time in regard to the distribution or seriousness of this corn root-worm through tropical America, but if the situation at the Institute can in any sense be taken as typical, it is indeed a most destructive enemy.

It is hoped that a project of testing, breeding and selection can promptly be put underway, taking as a basis the best and most resistant collections of tropical corn varieties. A productive and root-worm resistant variety might prove of desperate need in Central America a few years hence.

Several other problems with important food crops have indicated need for a plan of attack comparable to that proposed for corn.

The collection of tropical grapevines which were planted in May are now in vigorous and healthy growth. Thus far, there is every indication that they will be perfectly at home in the environment of Turrialba.

There has been further proof of the extreme deficiency of and requirement for available phosphorus in the former coffee soils of the Institute. Though a few crops have given evidence of insufficient potassium, and in certain locations of a probable nitrogen deficiency, it is the widespread hunger for phosphorus that constitutes the dominant and controlling soil problem in this region.

November and December

In November (1943) the initial steps were taken toward the accumulation from various sections of the world of the vast assortment of economic plants and fruits that are needed in the horticultural program. Plans for the

lath-house with adjoining potting shed and small glass house have been made and construction will follow shortly.

First efforts toward the improvement through selection and controlled pollination of certain corn varieties have been started. Progressive plantings of various vegetables and field crops have continued and satisfactory results are being obtained. A total of approximately seven to eight acres is planted to these crops at the present time.

A variety of sweetpotato obtained locally but of considerably better quality than the common kinds has given good yields and is at the Institute, and in consideration of this, a project of breeding and selection toward the development of superior varieties is being considered.

The nearly 1,000 tropical grapevines which were planted about May first have grown normally and have shown every indication of being completely adapted to the warm and moist climate of Turrialba.

December (1943) is the nearest approach to the dormant season with plant growth at Turrialba. There has been very heavy rainfall (approximately 20 inches for the last three weeks) and the weather has been quite cool. With the combination of short days and cool weather and at times, excessive rains, many crops have registered very slow growth. The excessively wet soil has caused loss in the planting of sesame, rice bean, field beans and various garden vegetables that were in the young seedling stage. As a whole, however, crops look moderately well at this date, even though the yields with some will doubtless be considerably lower than in other seasons.

Construction on the glass and lath house has been started and is progressing normally.

Approximately one thousand small plants of Cinchona ledgeriana were planted at the Institute during the month. A temporary shade roof has been constructed over the nursery beds.

The collection of hybrid tropical grapes which made a good growth during the late summer and early autumn are now satisfactorily dormant and all cases have ripened normally. It is obvious that these new sorts are completely adapted to the humid tropical climate of Costa Rica and are adequately sensitive to the very slight variations in seasons. This is in noteworthy contrast to the unsatisfactory temperate climate kinds which have figured in all previous attempts at grape culture in torrid zones. There is an extensive need and a very brilliant future for this new class of grapes throughout the warmer regions of the world.

January 1944

In January 1944, at the request of Colonel Arthur F. Fischer, G.S.C., who is in charge of the expansion of the cinchona industry in the western hemisphere for the War Department and is a liaison officer with the Office of Foreign Economic Administration, the Institute has made available land for the planting of one hundred thousand cinchona seedlings at Turrialba. These seedlings are part of the two million seeds which were taken out of the Philippine Islands in a flying fortress by Colonel Fischer just before the fall of Bataan to the Japanese. The seedlings are the high-yielding Ledgeriana type developed in the Far East from cinchona stock originally brought from South America. This planting at Turrialba involves the largest single operation resulting from Philippine stock. The decision to plant these seedlings at Turrialba was based on trials made there. These trials have been so successful

that it seemed logical to undertake this larger operation. The Institute has great expectations for the establishment of quinine production in this hemisphere and it will be only through such research as will be done at the Institute that the industry can be placed on a solid and permanent basis.

Mr. Joseph Fennell, horticulturist at the Institute, proceeded to Florida to collect grape vines that he established there. The material that he plans to collect for shipment to Turrialba is the result of several years' work and considerable expense. It comprises many of the most promising hybrids yet made. Mr. Fennell is convinced that this material is the basis for the establishment of a warm-climate viticulture industry for the entire world. In addition to collecting these hybrids and rare wild parent grape vines, Mr. Fennell will collect blueberries, plums and other propagating material.

The breeding and propagating work on fruits and vegetables continued throughout the month. Outstanding was the production of rutabagas which has been quite successful in our trials and is unknown in Costa Rica.

February

Except for the first week, growing conditions during the month of February (1944) have been good. Nearly all crops have shown good healthy growth. The weather for this part of the month has been dry and sunny and the days quite warm. There has been no appreciable damage from insects or disease.

It is obvious from experiences of the past year that the season February to August is by far the most favorable for vegetables grown at the Institute. Beans have proven almost a total failure during the period August to February, though throughout the other half of the year growth and production has been moderately good.

During the month routine plantings of various crops has continued and interesting results have been noted from soil and fertilizer experiments with certain plants. A total of around thirteen acres is devoted exclusively to field and food crops at this time.

During the month Mr. Fennell made an official trip to Florida. There he secured an assortment of rare plants of extensive value in a breeding project for the tropics. This stock, chiefly grapes, plums, blackberries, persimmons, etc., represents a selection of essentially tropical wild species collected by Mr. Fennell, together with various hybrids that have been derived therefrom. An assortment of fine temperate climate varieties of plums, blackberries, raspberries, blueberries, grapes, etc., have been planted for use in proposed breeding experiments with the tropical wild sorts. A seedbed, containing some five or six thousand seeds of sour oranges, has been planted for root-stock for the proposed citrus collection.

The cinchona planting shows increasing promise, and growth has been fully satisfactory. No diseases have been apparent and there has been little or no mortality since the initial planting period.

March and April

The Month of March (1944) at Turrialba has been warm and sunny and as a result all crops have grown well. Beans, corn, tomatoes and various other plants are now growing luxuriantly. Tests of the past year have shown that beans grow and produce well when planted February 1st to July 1st, but when planted July to February results are not good. During the month, thirty-three additional varieties of soybeans, eleven varieties of cowpeas and eight of peanuts have been planted for comparative tests.

In moist tropical climates, comparable to that of Turrialba, many food crops as lima beans, string beans, tomatoes, garden peas, etc., are often not satisfactory in the warmer and more rainy seasons. In an attempt to ameliorate this condition preliminary efforts at breeding and selection are under way. These employ such parental types that appear to afford the best complementary total of the qualities needed. A selection of string beans has been made which has definitely better disease-resistance and productivity during the moist winter months than do any of the more than forty tropical types tested thus far. Further tests are now in progress. A cross between the native pumpkin or "ayote" (*Cucurbita moschata*) and the African squash has produced fruits of better quality than any of the local types. Second generation selections will soon be made.

All plantings of cinchona, grapes, plums, berries, citrus and many others are doing well. Preliminary efforts toward the development of improved blackberries, and raspberries with superior fruit for the tropics are under way. First attempts are being made to produce hybrids between the well-known temperate climate Youngberry and a large wild tropical blackberry (*Rubus trichomallus*).

A collection of high-yielding clones of *Derris elliptica* has recently been planted.

Selections of Hungarian paprika are being made with the object of obtaining a pure strain having no pungency and which could be used for the manufacture of the so-called Spanish paprika, or Pimenton.

The Director and Mr. Fennell spent the first week of April (1944) at the Lancetilla Plant Introduction grounds of the United Fruit Company at

Tela, Honduras. Seeds of around sixty different species of economic and ornamental plants were brought to the Institute and arrangements were made to obtain others as they become available. Various new introductions of field crop seeds have been planted and are growing well. All plantings of derris, cinchona, grapes, berries, plums, citrus, etc., are showing good growth.

May

May (1944) has been alternately dry and wet for periods of about a week at a time. Most all crops have grown well. The variety test with soybeans (32 new sorts) and cowpeas (11 new sorts) has given interesting results. There is a marked difference in the adaptability and production of varieties. Yields with the better soybean varieties vary from 2,000 to 4,000 pounds per hectare, depending upon season. In May the harvest of dry shelled beans was at the rate of 3,200 pounds per hectare, or approximately 1,280 pounds per acre. The better varieties of cowpeas produce from 1,400 to 2,000 pounds of dry shelled peas to the hectare. A recently checked plot produced at the rate of 1,650 pounds to the hectare or 660 per acre.

A recent introduction of corn, Maiz Breve, from Guatemala has indicated the best results yet obtained at the Institute with this crop. Typical stalks measure eleven feet in height and bear one to two large ears. In the search of some way to counteract the serious damage usually inflicted on growing corn by root-worms and later by animals, this Guatemalan selection was planted in rows of growing rice beans. As far as can be seen, there is no root-worm nor animal damage, (as yet), and undoubtedly the plants have prospered in growth as a result of soil modifications caused by the rice bean. No cultivation nor weed control has been needed or given.

It seems possible that rice beans planted with corn might accomplish several benefits: (1) Contribute nitrogen to the soil; (2) Keep down weeds and grass; (3) Diminish loss from the pesotes which might be hampered and discouraged by the rank, almost impenetrable tangle of growth over the floor of the corn field; (4) Minimize erosion. A project is now under way for the development of a better adapted tropical sweet corn starting originally from a cross we made between a local Costa Rican field corn and the U.S.D.A. No. 34 sweet corn from Puerto Rico.

All plantings of plums, blackberries, raspberries, grapes, cinchona, citrus, etc., are growing nicely. First crosses have been made between the Costa Rica Rubus glaucus and the Latham red raspberry. Crosses between the Youngberry and a wild dewberry, Rubus okeechobeus from southern Florida have been made in a limited way.

June

During June (1944) all plantings have progressed satisfactorily except that there has been too much rain for a few crops. The cinchona plants have been set to their permanent field location and occupy approximately one acre of ground. The plants are in excellent condition and have transplanted well. Work at the plant propagation house is progressing normally, although there are several problems to be solved, such as the construction of a small furnace for soil sterilization. All plantings in the experimental area are doing well.

LIVESTOCK EXPERIMENTAL WORK

As the fiscal year ends Mr. Robert Squibb, a graduate of the University of California, began experimental work with livestock. Mr. Squibb

holds a master's degree in animal husbandry and has had experience in El Salvador as a livestock specialist.

Already Mr. Squibb has made a general survey of the livestock industry of Costa Rica to get acquainted with the problems of the industry. He is completing work previously begun on a nutritional disease that effects horses throughout the tropics. He is beginning preliminary work on digestion trials of various forage crops, selection of "criollo" chickens and grass silage.

ENGINEERING AND ECONOMICS

Mr. V. C. Pettit, purchasing engineer plans to proceed to Turrialba again to assist with construction work and set up the preliminary work in agricultural engineering.

The experimental work in the field of economics and rural life, primarily library and office work in the early stages, will be gotten underway just as soon as the other divisions are functioning.

EDUCATIONAL PROGRAM

One of the most important objectives of the Institute, if not the most important, is its educational program. This program has been under discussion for considerable time, and it was finally brought before the Advisory Committee on Inter-American Cooperation in Agricultural Education at its May 4, 1944, meeting.

At that meeting the Committee passed the following resolution:

"The number of divisions (of the Institute) be increased to include economics and rural life."

The educational program for the present will be based upon the following document which is now in the hands of the printer and which will be distributed to the twenty-one governments of the American Republics.

ANNOUNCEMENT OF FELLOWSHIPS

The Inter-American Institute of Agricultural Sciences, organized under the auspices of the Pan American Union, with field headquarters at Turrialba, Costa Rica, announces the opening of its doors in the course of the academic year 1945-46. The Institute is offering 21 fellowships in agricultural education to male students holding the equivalent of the B.S. degree in agriculture--one each to the American Republics. Applications for fellowships must be forwarded through the foreign office of the applicant's country. These applications will be forwarded to the headquarters

of the Institute, Pan American Union Building, Washington, D. C.

It is visualized that scholarships, day students, visiting scientists and various types of short courses will play a role in the educational work. In addition, specific research projects will be undertaken above and beyond those carried on by graduate students. It is hoped that the Governments of the American Republics and private agencies will center some of their agricultural research work at the Institute. This announcement concerns but one phase of the Institute's program--an award of one fellowship to each of the twenty-one republics.

PURPOSES OF THE INSTITUTE

The purposes of the Institute are to encourage and advance the development of agricultural sciences in the American Republics through research, teaching and extension activities in the theory and practice of agriculture and related arts and sciences.

The Institute was organized on October 7, 1942. The cornerstone of its first permanent building at Turrialba, Costa Rica, was laid by President Rafael Ángel Calderón Guardia of Costa Rica, and Vice President Henry A. Wallace of the United States on March 19, 1943. The Institute is an agricultural research and training center for all of the Americas, supported by those countries that have signed and ratified the Convention governing its organization and operation. Its chief function is to train men in a specific field of agriculture so that they may advance the agriculture of their countries, looking forward to building a better hemisphere.

It is the purpose of the Institute to offer to adequately trained students facilities for advanced study and for research, with the two-fold

purpose of providing each such student with a comprehensive view of a field of knowledge and of training him for independent investigation in that field. A high grade of scholarly work, as distinguished from the fulfillment of routine requirements, is expected of every student.

A candidate for an advanced degree is expected to develop ability to meet new problems, at least in his own field, and to solve them by his own ingenuity. A candidate should, in addition, acquire a feeling of responsibility to add to the sum total of human knowledge and should develop qualities of leadership, particularly in his special field of study.

REQUIREMENTS FOR CANDIDATES

Fellowships in the Institute are awarded to those who have already shown outstanding ability in research and who expect to return to their own countries to continue their work in agriculture.

A candidate must meet the following requirements:

1. He must have recognized high professional and intellectual qualifications.
2. He must be in good physical condition.
3. He must devote his entire time to the pursuits for which the fellowship is awarded.
4. He must spend not less than one year nor more than three years in residence at the Institute.
5. The student should be well grounded in basic courses such as chemistry, physics, botany and zoology.
6. The student will present himself at the Institute at his or his country's expense, and it is expected that he or his country is to pay his return transportation to his home.

Each student is expected to present a thesis summarizing the results of the thesis problem assigned to him. If publications result from this activity the Institute must approve and the publication should carry an acknowledgement of the Institute's role in the activity.

There are no language requirements of candidates before entering the Institute, but during the course of his studies, each student is expected to become conversant with two of the four official languages of the Pan American Union—Spanish, English, Portuguese, and French. A service designed to assist students in these four languages will be set up. No formal instruction in languages will be offered.

The right is reserved to withdraw a fellowship in case of a student's conduct that is, in the opinion of the officers of the Institute, prejudicial to the object for which the fellowship was awarded.

No fellowship will be awarded unless a candidate is recommended by the foreign office of his own country.

No candidate will be accepted at the Institute unless he has been issued a formal certificate of entrance by the Institute. These will be sent to the successful candidate at the time of his selection by the Institute.

TYPICAL SCHEDULE

January 8	Monday	Work begins
February 1	Thursday	Mid-term examinations
May 10	Thursday	Guest Lecturer
June 29	Friday	Guest Lecturer
July 23	Monday	Guest Lecturer
August 1	Wednesday	Final term examination
August 10	Friday	Preliminary thesis examination
August 25	Saturday	End of first term
September 3	Monday	Beginning of new term

FACILITIES

The Institute owns and operates 2,500 acres of land in Turrialba, Costa Rica, and 2,800 acres of land on Gatún Lake in the Republic of Panama. Both locations are equipped with buildings for housing. However, all training of students will be at Turrialba, Costa Rica. The substation on Gatún Lake, Panama, is for rubber research only. The land is devoted primarily to investigational work in agriculture, particularly that of the tropics. The fire-proof, reinforced concrete dormitory building just erected at Turrialba will provide all the modern facilities to the student body. Class rooms, offices, laboratory facilities and field plots have been provided. Each student will be given ample equipment to carry on his research.

TURRIALBA, COSTA RICA

The town of Turrialba is on the main railroad between San José and the Atlantic port, Puerto Limón, in what is called the Valley of the Reventazón, after the river of that name. It is also on a hard-surface highway from San José, negotiable by automobile in about one and one-half hours. It is 112 kilometers from Limón and 70 kilometers from San José. The Institute grounds adjoin the outskirts of Turrialba. The lands lie along, and form a part of the area on both sides of a paved highway and on a branch of the railroad to Pejevalle. It is at an altitude of 2,000 ft. The climate is typical of the wet tropics for agricultural purposes. The annual rainfall is about 100 inches a year, well distributed, but with a drier season, January to March. The average temperature is about 75 degrees Fahrenheit and ranges from 60° to 95°. In general, the days are warm and the nights are cool.

The region is suited to the cultivation of coffee, cacao, and sugar-

cane; corn and rice; fruit trees and vegetable crops. Though the climate is too moist for the best production of certain fruits, such as mangoes and avocados, it is well adapted for experimental work on livestock, and dairying, under tropical conditions. Rubber and abacá grow well. The region also lends itself to investigation of tropical problems on erosion control. Due to the well-distributed rainfall, there is no opportunity in Turrialba itself for irrigation studies, but it is entirely suited to investigation and demonstration of drainage practices. The Institute has an extensive collection of tropical plants. The altitude is satisfactory for cultivating all species common to the tropical lowlands.

Experimental work is under way with cinchona and other crops requiring high elevations within 2 to 3 kilometers on the slopes of the neighboring hills. There are greater opportunities for crops of this type within 10 kilometers on the slopes of the Turrialba volcano. Barley, wheat, potatoes, and other sierra crops are now grown commercially on the slopes of the Irazú Volcano above Cartago and about 30 kilometers from the Institute. Within 40 kilometers of the Institute and toward the east coast there are extensive areas of wet lowlands suitable for studying production of rubber, abacá and oil palms. Excellent areas are available in the Alajuela region, about 100 kilometers distant, for the studying of problems under seasonal conditions of intermediate elevations.

The United States Department of Agriculture Rubber Experiment Station adjoins the Institute, and the extensive Goodyear Rubber Plantation at Cairo is 52 kilometers distant by railroad. These offer excellent opportunities for collaboration on Hevea rubber and in the cooperative use of facilities.

The Institute offers, within a distance of less than two hours by car or train, an almost complete cross-section of Tropical American conditions. Furthermore, without being actually on the seacoast, it represents the wet lowlands that are so extensive in Tropical America. To a large degree the future development of Tropical American agriculture depends upon the solution of the problems of these wet lowland areas.

ORGANIZATION

The administrative staff consists of the Director, Business Manager and the Superintendent. Besides these, two chiefs of division act as Dean and Head of Research, respectively. Assistants to the division chiefs will be provided in the form of a sub-professional staff, some of whom will undoubtedly be advanced research students. Administrative details are vested in the Business Manager and the Superintendent.

The Institute is organized into four broad divisions as follows: Animal Industry, Agricultural Engineering, Plant Industry and Soils, and Economics and Rural Life. Each division is headed by a chief whose primary concern is to organize and conduct research and to teach a limited number of graduate students. It is contemplated that each division will be assigned not more than ten graduate students so that specialized instruction may be had. Each division will offer formal seminar courses, not only for the students assigned to the division but for the entire student body.

Fully 50 percent of the student's time will be devoted to selecting, organizing, carrying out, and presenting the results of a comprehensive research problem. This problem will be selected after the student reaches Turrialba and after consultation with and approval of the division chief and the Director.

The head of each research division is an outstanding scientist from one of the American Republics. He will be selected not only for his abilities in a particular field of agricultural research but also for his ability to pass on to his students some of those characteristics that have made him an outstanding scientist in his field.

CURRICULUM

No formal curriculum is offered, inasmuch as the student's time will be devoted largely to a research problem and participation in seminars in each of the divisions of work. Each student will be expected to devote considerable time to library work. An extensive collection of botanical books gathered by the late Dr. William A. Orton of the Tropical Plant Foundation has been obtained as a nucleus of a library on tropical agriculture. This library will be expanded as rapidly as possible to include all the important works on agriculture, particularly those dealing with research.

No student will be accepted for less than one year's work, and no course of instruction will run longer than three years. Students should be well grounded in courses such as chemistry, physics, botany and zoology.

As a center of research and training, the Institute will attract outstanding men in the agricultural field, and it is hoped to utilize these men in bringing to the students recent and outstanding information in the field of agriculture. These specialized lecturers, referred to later in this announcement, will be provided as a part of the educational program.

For the student's guidance and information, examples of projects for research topics are given. In no way is the student limited to these particular projects. They are merely suggestive and are as follows:

I. Division of Plant Industry and Soils

1. Culture of strategic crops such as rubber, quinine and abacá.
2. Relationship of soil moisture to root growth of derris and lonchocarpus.
3. Effect of soil fertility upon the growth of Hevea rubber.
4. Improvement of edible soybeans for the tropics.
5. Effect of shade on coffee production.
6. Improvement of pastures and forage crops.
7. Tropical fruit and vegetable cultural problems.
8. Life history of major field crop, fruit and vegetable insects.
9. Types of corn available in this hemisphere.
10. Biological control of insects in the tropics.
11. Insecticides and their value under tropical conditions.
12. Systematic studies of tropical insects.
13. Relationship of pH to phosphorus availability in tropical soils.
14. Soil erosion in the tropics.
15. Classification of tropical soils.
16. Soil management under irrigation.
17. Value of fertilizer in soils under tropical conditions.

II. Division of Animal Industry

1. International sanitary measures for livestock.
2. Meat cutting, packing and inspection in the tropics.
3. Processing and inspection of dairy products.
4. Improvement of livestock and poultry through breeding.

5. Tick eradication and its effect on the livestock industry.
6. Studies of the control of Trypanosomiasis, a disease of horses and cattle.
7. Nutritive value of tropical feeds for livestock.
8. Insects affecting man and livestock.
9. Systematic studies of tropical insects.
10. Improved transportation and the spread of livestock diseases and pests.

III. Economics and Rural Life

1. What should (a given country) produce as a basis for stronger national development and international trade?
2. The economics of single-crop versus diversified agriculture.
3. Economic consequences of various combinations of land, labor and capital equipment.
4. Problem of local education, health and sanitation, roads, etc.
5. The cost of producing specific farm products, particularly strategic crops.
6. The economics of various combinations of enterprises on individual farmers.
7. The marketing of specific farm products, particularly strategic crops.
8. The level and content of farm family living.
9. The group and institutional participation of farm people.

10. Factors effecting social and economic progress among farm people.
11. Development of techniques of education and extension to achieve greater local acceptance of improved knowledge and agricultural practices.
12. Effects of tariffs and taxation on agricultural production.
13. The agriculture of various countries--its possibilities and future.
14. Balanced agricultural production in the hemisphere.

IV. Division of Agricultural Engineering

1. Design of processing machinery for strategic crops such as rubber, quinine and abacá.
2. Design of agricultural machinery for use on small farms.
3. Utilizing small streams for farm power.
4. Planting and harvesting equipment for intercalary crops.
5. Dehydration problems in the tropics.
6. Equipment and methods for lowland crop production.
7. Drainage of low, coastal lands.
8. House designs for small farmers in the tropics.
9. Storage and shipment of perishable products.
10. Utilization of soils in the manufacture of adobe, brick, tile, and other construction materials.
11. Irrigation on small farms.

MASTERS DEGREE

After the satisfactory completion of work a student will be awarded the degree, Master of Science (M.S.). In order to obtain this degree the student must be in residence one year. However, approved candidates may complete part of their work elsewhere, subject to the approval of the faculty and Director.

Each student will be required to present a thesis, prepared according to regulations of the Institute. One copy of the thesis must be filed in the Institute Library.

It is expected that the thesis will constitute a report of results obtained in an original investigation or problem. The problem in question may be of limited scope, but it must be attacked for solution in a systematic and scholarly way. The preparation and presentation of a satisfactory thesis will be of the greatest importance in determining the award of the master of science degree.

GUEST LECTURERS

Tropical Latin America has lacked an outstanding gathering place for scientists interested in tropical agriculture. This alone is responsible for much of the lack of progress in this hemisphere as compared to that in the Far East where notable strides have been made in the production and development of rubber, quinine, abacá and other strategic products.

The Institute with good facilities for living and working in a tropical setting should attract many of the foremost scientists in agriculture of this hemisphere. In addition, it is planned to invite from time to time outstanding scientists to visit the Institute, give series of lectures and

act as consultants on research problems. Both from the standpoint of training students and the development of a sound agricultural program, this activity should offer much.

TUITION AND OTHER FEES

The student will present himself at Turrialba at his or his country's expense, and it is expected that he or they pay his return transportation.

Students on fellowships from countries that have signed the Convention governing the operation of the Institute will pay no tuition, dormitory, board or laboratory fees. It is expected that special fellowships, in addition to those offered by the Institute will be granted. These will be announced from time to time and made available to worthy students.

Tuition for all other students will be \$200 U.S. per annum or any portion of that year, regardless of the length of time spent at the Institute. All students will be expected to live in the dormitory on the Institute campus. Rooms will be assigned in the Director's office in the order of application. Rental will be \$100 U.S. per annum. The dining room of the dormitory will be open to all students. Board will be \$200 U.S. per annum.

Each student will provide his own clothing and incidental items of personal expense. The Institute will provide laundry facilities at a nominal rate to resident students.

CLOTHING

No special clothing is required. It is suggested that during the day and when on duty farm clothing be commonly used. A dark suit will be the accepted formal clothing. Because of the rains, particularly in the afternoons, it will be well to be equipped with such articles as rubbers, raincoat, etc.

COMMENCEMENT

Commencement will be held but once a year. All candidates on whom degrees are to be conferred are to be present at the commencement exercises unless excused for urgent reasons by the Director.

HOSPITALIZATION

There is a hospital and health center in Turrialba under the direction of the Costa Rican government. Arrangements have been made with the Institute to provide medical care for students at a nominal fee. The hospital is in charge of a well-trained physician. Also, San José is only 70 kilometers distant, where there are fine hospitals and medical services of all kinds.

EXEMPTIONS AND PRIVILEGES FOR PERSONNEL AND STUDENTS

Each of the Contracting States agrees that it will accord to persons engaged in the work of the Institute or pursuing studies under the auspices of the Institute, such privileges with respect to exemption from taxation and other burdens affecting the entry, travel and residence of such persons as may be appropriate under its laws and regulations.

GENERAL INFORMATION

The Institute operates under a treaty or convention which at this date has been signed by thirteen countries, namely: Bolivia, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, United States, and Uruguay; and ratified by five—Guatemala, El Salvador, Costa Rica, the United States and Nicaragua. Since the required five countries have ratified the Convention the Treaty is now in effect, thereby assuring the permanent support of the organization. The administrative headquarters of the Institute are located in the Pan American Union, Washington, D.C., the field headquarters are at Turrialba, Costa Rica. The Institute also maintains a rubber substation on Gatún Lake, Republic of Panama.

PANAMA RUBBER SUBSTATION

A cooperative rubber research program is being carried on at this substation acquired from the Goodyear Rubber Plantations Corporation in July 1943. Work began on July 1st through the fine cooperative efforts of the Goodyear Company, even though a formal contract with the Panamanian Government was not completed until August 23rd. All of this activity, of course, has been made possible by a grant to the Institute of \$38,600 by the Rubber Development Corporation, an agency of the United States Government.

The property at this substation includes 1,155 hectares of land situated on the shores of Gatún Lake adjacent to the Canal Zone. About 700 acres of this property were planted to rubber; much of it had been badly damaged by the South American leaf disease, the most important single factor governing the profitable growth of rubber in this hemisphere.

The value of the land, buildings and equipment has been estimated at about \$80,000 and the Goodyear Company had an investment of about \$295,000. To date the Institute's actual investment has been about \$5,000 in this important activity. Mr. George Slater is the Field Superintendent in charge.

In the first annual report the agreement between the Government of Panama and the Institute and the Memorandum of Understanding between the United States Department of Agriculture and the Institute are published. These two documents provide the charter for the activities at this substation.

The accomplishments and outlook for this cooperative rubber project, which has been considered an outstanding success in its first year of operations, is as follows:

Salvaging of the planted areas of various ages has been limited to the most promising blocks forming a contiguous, easily managed tract near the estate headquarters. Transportation has been provided, buildings renovated, and an efficient but limited supply of labor trained. Technicians from the United States Department of Agriculture station at Turrialba, Costa Rica, have guided operations through periodic stays at the plantation.

During the past year 110 acres of high-yielding, blight-susceptible, oriental clones have been salvaged. A portion of this acreage has already been top-budded with blight-resistant clones, and the remainder can be top-budded within a few months. In addition, 40 acres of 4- to 7-year-old blight-resistant trees have been maintained and are producing increasing quantities of blight-resistant seeds. About 15,000 seeds were obtained from these trees during the summer of 1943. Distribution of budwood of high-yielding clones is now under way.

A limited number of crosses between high-yielding susceptible clones and blight-resistant clones have been made during the past few months. The amount of breeding work that can be done will increase with the increasing age of the trees.

In the next fiscal year the cooperative rubber project will make a significant contribution to the rubber program by serving as a source of clonal budwood and disease-resistant seeds. Several thousand meters of budwood of the best oriental clones can be obtained for shipment to other countries. A seed crop estimated at 30,000 blight-resistant seeds will mature in August and

September 1944. Seed production will increase rapidly with increasing age of the trees. Aside from supplying materials for other countries, the seed and budwood supply on this project will make it an important center for distribution of planting material to farmers in Panama.

With increasing flowering each year the opportunity for breeding work will become greater. This plantation is one of the few spots in the hemisphere where both oriental clones and indigenous blight-resistant selections of flowering age occur.

Hundreds of oriental clonal trees top-budded with blight-resistant clones have now reached tapping size. This number will increase until the entire acreage that has been salvaged comes into production two or three years hence. The trees that are now tappable are of a special experimental value in that they are four to seven years older than most other oriental clones in Central America. The influence of top-budding with resistant but unknown yielding crown clones on yield of the trunk portion of the tree, on rate of growth, wind resistance, and other factors under standard plantation conditions should be determined with the diverse combinations and wealth of material on the substation.

In utilizing the produce of the rubber trees, it will be advantageous to set up a small unit for making smoked-sheet rubber. This will be of value from an educational standpoint as well as in supplying some natural rubber.

REPORT OF THE TREASURER

The funds of the Institute are handled in Washington under the auspices of the Pan American Union as fiscal agent. Although the control of the accounts and financial records are centralized at the executive headquarters in Washington, efficient administration has necessitated the establishment of branch accounts in Costa Rica and Panama.

A large part of the business transactions has been negotiated through the Field Headquarters at Turrialba, Costa Rica. The fiscal work there is handled by a bonded Business Manager who is responsible, among other things, for the disbursement of funds and the accounting therefor. He renders his report periodically to the Washington office. Due to the construction program and the usual problems attending the initial steps in developing an organization, the work of the Business Manager has not been easy. To further handicap operations, there were three different occupants of the position during the year. It is to be hoped that these difficulties will be overcome by the present incumbent.

The Manager at the Panama Substation also maintains a bank account and renders his accounts to the Washington office twice monthly.

Monthly financial and progress reports are sent to the Coordinator of Inter-American Affairs in connection with grants-in-aid which he has been instrumental in providing.

Quarterly reports and statements were furnished, in accordance with

an agreement, to the U. S. Rubber Development Corporation in connection with its financial assistance for the Panama Substation.

At the close of the year the Fiscal Agent was responsible for having the firm of Wm. Gordon Buchanan and Co., Certified Public Accountants, make an audit of the books for the year ended June 30, 1944.

The following statements are submitted:

Balance Sheet as of July 1, 1943,

Statement of Revenue for the fiscal year,

Statement of Expenditures for the fiscal year,

Balance Sheet as of June 30, 1944 and

Statement showing the status of the grants-in

aid made to the Institute by the U.S. Government.

BALANCE SHEET
as of JULY 1, 1943

ASSETS:

Cash on deposit in Riggs National Bank	\$ 74,011.81
Cash on deposit in Banco Nacional de Costa Rica for Business Manager	17,979.76
Cash on deposit with Collector of Panama Canal	296.57
United States Government Bonds	<u>302,000.00</u>
TOTAL ASSETS:	<u><u>\$394,288.14</u></u>

LIABILITIES:

Grants:

Original Grant OEMcra-15 for "Administrative Expenses, etc."	\$100,000.00	
Less: Expenditures	<u>45,994.35</u>	\$ 54,005.65
Grant for "Construction of Buildings and other Facilities"	\$365,000.00	
Less: Expenditures	<u>25,693.32</u>	339,306.68
Working Fund Reserve		<u>975.81</u>
TOTAL LIABILITIES AND RESERVES		<u><u>\$394,288.14</u></u>

INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

REVENUE - *progresos*

July 1, 1943 to June 30, 1944

Grants-in-Aid from the United States by:

Institute of Inter-American Affairs for:
Administrative and Operating Expenses \$85,000.00

U. S. Rubber Development Corporation for:
Purchase of Equipment \$10,000.00
Maintenance of Panama Substation 28,600.00 38,600.00

Total Received from Grants \$123,600.00

Sale of Wood \$1,327.93
" " Books 240.75
" " Vegetables 12.50
" " Cane 2,014.70
" " Light and Water 57.00
Interest on Securities owned 2,632.20
Profit on Sale of Securities 97.13 6,382.21

TOTAL REVENUE RECEIVED \$129,982.21

STATEMENT OF EXPENDITURES

JULY 1, 1943 to JUNE 30, 1944

	Construction Costs	Administrative and Operating Expenses		Total
		General	Panama Substation	
Material	\$87,054.79	\$ - --	\$ - --	\$87,054.79
Labor and Coffee Picking Expense	10,050.51	33,541.27	9,236.13	52,827.91
Salaries	4,627.74	25,714.24	7,233.36	37,575.34
Tools and Supplies	2,509.32	10,399.02	4,867.93	17,776.27
Equipment	314.92	8,363.00	10,000.00	18,677.92
Northern Railway Company - Con- tractor for Construction	172,334.74	408.74	- --	172,743.48
Truck and Auto Expense	996.00	235.25	- --	1,231.25
Insurance and Bond Premiums	464.17	45.40	- --	509.57
Hospitalization	63.46	229.69	- --	293.15
Plans and Specifications	123.54	- --	- --	123.54
Land - Panama	10,000.00	- --	- --	10,000.00
Office Supplies and Expense	- --	762.59	592.57	1,355.16
Telephone and Telegraph	- --	153.25	- --	153.25
Gasoline and Oil	- --	1,263.51	- --	1,263.51
Seeds and Fertilizer	- --	575.03	- --	575.03
Repairs	- --	73.12	- --	37.12
Interest	- --	162.21	- --	162.21
Travel	- --	5,362.40	2,396.73	7,759.13
Office Rent	- --	50.00	- --	50.00
Legal Expense	- --	5,700.00	188.18	5,888.18
Freight on Books and Periodicals	- --	422.44	- --	422.44
Washington Office Expense	- --	5,667.48	- --	5,667.48
Quarters Allowance	- --	734.98	- --	734.98
Retirement Fund	- --	476.67	180.83	657.50
Servant Allowance	- --	- --	420.00	420.00
Translating	- --	- --	65.00	65.00
Repairing and Equipping Launch	- --	- --	3,419.27	3,419.27
Total Expenditures	\$288,539.19*	\$100,304.29*	\$38,600.00*	\$427,443.48

* Does not include unpaid orders and obligations.

** Includes \$784.24 Accounts Payable.

NOTE: The foregoing figures were taken from the audit report of Wm. Gordon Buchanan and Company.

BALANCE SHEET

as of June 30, 1944

ASSETS:

Cash on deposit in Riggs National Bank	\$41,604.69	
Cash on deposit in Banco Nacional de Costa Rica for Business Manager	60,745.92	
Cash advanced to Manager, Panama Substation	1,462.87	
Cash on deposit with Collector of Panama Canal	162.49	
Petty Cash Fund	<u>100.00</u>	\$104,075.97
Accounts Receivable		<u>665.27</u>
	TOTAL ASSETS	<u>\$104,741.24</u>

LIABILITIES:

Grants:

Original Grant OEMcra-15 for "Administrative Expenses, etc."	\$100,000.00	
Less: Expenditures	<u>85,501.70</u>	14,498.30
Grant-in-Aid IAAa-20 for "Administrative and Operating Expenses" to June 30th	85,000.00	
Less: Expenditures	<u>60,796.93</u>	24,203.07*
Grant for "Construction Buildings and other Facilities"	365,000.00	
Less: Expenditures	<u>314,232.51</u>	50,767.49*
Grant for Panama Substation Equipment	10,000.00	
Expenditures	<u>10,000.00</u>	NONE
Grant for Panama Substation Maintenance	28,600.00	
Expenditures	<u>28,600.00</u>	NONE
Total Unexpended from Grants		\$ 89,468.86
Accounts Payable		784.24
DEFERRED LIABILITIES: Deposit on Coffee Contract		7,130.13
Working Fund Reserve		<u>7,358.01</u>
	TOTAL LIABILITIES AND RESERVES	<u>\$104,741.24</u>

* Does not allow for unpaid orders and obligations.

STATEMENT SHOWING STATUS OF GRANTS-IN-AID

	Amount of Original Grant	Expended prior to 7/1/44	Available for the Fiscal Year	Expended during the Year	Unexpended June 30, 1944
OEMcra-15 Construction	\$365,000.00	\$25,693.32	\$339,306.68	\$288,539.19	\$50,767.49* (1)
OEMcra-15 Administrative and Operating	100,000.00	45,994.35	54,005.65	39,507.35	14,498.30* (2)
IAAA-20 Administrative and Operating	-	-	85,000.00	60,796.93	24,203.07* (3)
Panama Substation Equipment	-	-	10,000.00	10,000.00	- (4)
Panama Substation Maintenance	-	-	28,600.00	28,600.00	- (5)
	<u>\$465,000.00</u>	<u>\$71,687.67</u>	<u>\$516,912.32</u>	<u>\$427,443.47</u>	

* Does not allow for unpaid orders and obligations.

DESCRIPTION OF GRANTS-IN-AID FROM THE GOVERNMENT OF THE UNITED STATES

- (1) OEMcra-15 - From the Coordinator of Inter-American Affairs for Construction of Buildings and other Facilities.
- (2) OEMcra-15 - From the Coordinator of Inter-American Affairs for Administrative and Operating Expenses.
- (3) IAAA-20 - From the Institute of Inter-American Affairs for Administrative and Operating Expenses.
- (4) - From the Rubber Development Corporation for the purchase of Equipment at the Panama Substation.
- (5) - From the Rubber Development Corporation for Maintenance Expenses to June 30, 1944.

BUDGET FOR THE FISCAL YEAR

JULY 1, 1944 to JUNE 30, 1945

There continue to be so many uncertain factors with respect to both income and expense that it appears somewhat futile to endeavor to set forth a definitive budget for the fiscal year July 1, 1944 to June 30, 1945. For example, in September when this report was prepared, there had not been received the \$75,000 granted for current expenses for the period July 1st to December 31, 1944.

During the first six months the funds for administrative and operating expenses will be largely those from grants-in-aid made available by the United States Coordinator of Inter-American Affairs. For the second semester it is expected that the financing will be mainly from the payment of quotas. The amount of income from this source will be dependent upon the degree of adherence to the Convention under which the Institute will operate as well as the promptness by which quotas are paid by the member governments.

From the foregoing explanation it is evident that it is possible to ascertain the approximate amount of funds which will be available for expenditure through December, but from that time forward both the amounts of monies and the approximate dates of receipt will be very uncertain. With this situation in mind it is important that the Institute proceed to build up an appropriate working fund reserve in order that budgeting and administrative planning may be on an intelligent basis.

During the current year, in addition to budgeting expense for routine operations there will be necessity for the procurement of certain livestock, supplies and equipment. These requirements will, of course, become evident as operational plans develop and be more during the initial phases of the operational program. It is expected that during the last half of the fiscal year the opening of the school will take place. The date, however, is problematical and depends largely upon the completion of the present building construction program which the Office of the Coordinator of Inter-American Affairs has generously undertaken. It would thus appear to be quite unwise to speculate on the figures to be included in a budget representing the cost of instruction and of student care. After completion of the required minimum construction of buildings and the opening of the school, and when the Institute gets under full operation and it is determined how many governments are to participate, the preparation of a more complete budget will be possible.

I am taking the liberty of appending hereto a tentative budget covering income and expenses for administrative and operating expenses for the first half of the fiscal year: i.e., July 1, 1944 through December 31, 1944. It is submitted with the explanation that experience as well as changing circumstances may result in some variations from the estimates.

On the following pages are tables indicating quotas to the Institute for the current fiscal year and for the year ending June 30, 1946 based upon the population statistics in effect by the Pan American Union. The quotas so shown are computed at the rate of \$1.00 per thousand inhabitants and are indicated for all of the governments, members of the Pan American Union, even though at the time of preparation of this report some had not expressed an intention of supporting the Institute.

INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

TENTATIVE BUDGET FOR

ADMINISTRATIVE AND OPERATING EXPENSES

JULY 1 to DECEMBER 30, 1944

ESTIMATED RECEIPTS

Unexpended balances on July 1, 1944 of grants for Administrative and Operating Expenses	\$ 38,701.37
Supplemental grant-in-aid from the U.S. Govern- ment through the Institute of Inter-American Affairs	75,000.00
Sale of Agricultural Products	<u>10,425.00</u>
Total estimated receipts for Administrative and Operating Expenses	<u>\$124,126.37</u>

INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

ESTIMATED EXPENSES

I - ESTIMATED REQUIREMENTS SUBMITTED BY THE
FIELD BUSINESS MANAGER FOR HIS ACCOUNT
IN COSTA RICA:

Coffee Operations	\$ 6,000.00	
Cane Operations	14,400.00	
Land Improvement	5,700.00	
Roads	4,950.00	
Department of Plant Industry	2,500.00	
Office Salaries and Miscellaneous Supervisory and Office Expense	6,070.00	
Maintenance of Buildings, plant and Equipment, including gas and oil	1,500.00	
Purchase of Operating Equipment	300.00	
Medical Expense	300.00	
Department of Animal Husbandry	6,200.00	
Miscellaneous Expenses	<u>600.00</u>	\$48,520.00

II - ESTIMATED REQUIREMENTS AT THE EXECUTIVE
HEADQUARTERS IN WASHINGTON:

Administrative Salaries Paid from Washington
Including Executives in Costa Rica:

Director	\$5,000.00	
Field Business Manager	3,000.00	
Engineer	3,000.00	
Farm Superintendence	3,250.00	
Faculty and Research Staff in Costa Rica	7,500.00	
Executive Offices in Washing- ton	<u>3,500.00</u>	
	\$25,250.00	
Contribution to a retirement fund for regular members of foregoing staff	<u>750.00</u>	\$26,000.00

Travel and Allowances:

Transportation while on official business,
per diem while away from station and allow-
ances in lieu of quarters pending comple-
tion of residences for certain officials in
Costa Rica

\$ 5,000.00 by Google

QUOTAS OF THE AMERICAN REPUBLICS FOR THE
SUPPORT OF THE INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

FOR THE FISCAL YEAR ENDING JUNE 30, 1945*

	<u>Population</u>	<u>Quotas at \$1.00 per Thousand</u>
Argentina	13,709,238	\$13,709.24
Bolivia	3,533,900	3,533.90
Brazil	41,565,083	41,565.08
Chile	5,178,260	5,178.26
Colombia	8,701,816	8,701.82
Costa Rica	687,354	687.35
Cuba	4,227,597	4,227.60
Dominican Republic	1,768,163	1,768.16
Ecuador	3,085,871	3,085.87
El Salvador	1,862,980	1,862.98
Guatemala	3,410,762	3,410.76
Haiti	2,663,000	2,663.00
Honduras	1,154,388	1,154.39
Mexico	19,653,552	19,653.55
Nicaragua	1,013,946	1,013.95
Panama	631,637	631.64
Paraguay	1,014,773	1,014.77
Peru	7,023,111	7,023.11
United States	154,436,523	154,436.52
Uruguay	2,146,545	2,146.55
Venezuela	<u>3,996,095</u>	<u>3,996.10</u>
	<u>281,464,594</u>	<u>\$281,464.60</u>

* Populations used are those effective for the quotas of the Pan American Union and computations are shown for all the American Republics regardless of expressions of intentions with respect to support of the Institute.

QUOTAS OF THE AMERICAN REPUBLICS FOR THE
SUPPORT OF THE INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

FOR THE FISCAL YEAR ENDING JUNE 30, 1946*

	<u>Population</u>	<u>Quotas at \$1.00 per Thousand</u>
Argentina	13,906,694	\$13,906.69
Bolivia	3,533,900	3,533.90
Brazil	41,565,083	41,565.08
Chile	5,178,260	5,178.26
Colombia	9,620,800	9,620.80
Costa Rica	705,000	705.00
Cuba	4,227,597	4,227.60
Dominican Republic	1,768,163	1,768.16
Ecuador	3,105,541	3,105.54
El Salvador	1,862,980	1,862.98
Guatemala	3,410,762	3,410.76
Haiti	2,719,474	2,719.47
Honduras	1,154,388	1,154.39
Mexico	21,153,321	21,153.32
Nicaragua	1,013,946	1,013.95
Panama	631,637	631.64
Paraguay	1,014,773	1,014.77
Peru	7,395,687	7,395.69
United States	156,233,264	156,233.26
Uruguay	2,185,626	2,185.63
Venezuela	3,996,095	3,996.10
	<u>286,382,991</u>	<u>\$286,382.99</u>

* Populations used are those effective for the quotas of the Pan American Union and computations are shown for all the American Republics regardless of expressions of intentions with respect to support of the Institute.

FIVE-YEAR DEVELOPMENT PROGRAM

On September 18, 1943, a proposed five-year development and action program was worked up as a basis for the Institute's activities. This program included a summary of the Institute's history and activities to that date and budget requirements.

As a result of this proposal funds for operations of the Institute were received from the Office of Coordinator of Inter-American Affairs. However, no funds for the continuation of the building program were obtained at that time.

Even though there have been some changes in the Institute's program, the pertinent parts of this five-year development and action program are included in the annual report as a matter of record. It is as follows:

Operational Policies and Over-all Program

In view of the conditions under which the Institute was established and under which it will operate, the operational policies and over-all program must be considered in terms of a period of several years. In developing an Institution of this type, the future scope of the activities with which it is concerned should be kept in mind constantly. Sound, orderly development and progress can be brought about only by smoothly integrating the Institute's research and teaching with funds which will be available for the physical plant and for operational expenses necessary to carry out the program.

It is recognized that the Institute should accommodate a certain minimum number of research students if it is to fulfill the purposes for which it was established. Therefore, in formulating its policies and over-all program, the contemplated magnitude of the student body has to be reconciled with the sums of money which it seems with reasonable certainty can be obtained. Since these two factors will circumscribe the Institute's development, at least during the initial years, they serve as a basis upon which to project the Institute's entire developmental and operational programs.

After due consideration, it has been decided that the Institute should have a research student body of 60 when it is fully established. This figure constitutes both the minimum number of students needed for efficient operation and the maximum that can be accommodated within an operational budget of approximately \$250,000.

The program that has been worked out envisions the enrollment of the first group of research students, 25 in number, on July 1, 1944, a second group of 30 on July 1, 1945, and an additional 30 on July 1, of each year thereafter. It is planned that the students will have a residence period of two years at the Institute. Therefore, those matriculating on July 1, 1944 will complete their study on June 30, 1946. This means that there will be 25 research students in residence during the year 1944-45, 55 during 1945-46, and 60 during 1946-47, and thereafter. As a prerequisite to admission, all applicants must have a Bachelor's Degree or its equivalent in an agricultural or related science. The principles of selection have not yet been determined, but they will ensure a student body both competent and representing a cross-section of the graduate students in agriculture in the American Republics.

It is at present proposed to furnish food, lodging, and all facilities of the Institute to the students free of charge, although there may be some modification of this policy later.

The proposed research and teaching schedule calls for the immediate formation of five professional divisions in order that preparation may be made to initiate research projects and offer instruction to the group of students that will enter the Institute on July 1, 1944. During the fiscal year 1944-45, it is planned to organize five additional divisions to be ready to receive students on July 1, 1945. This will bring the Institute to its full complement of 10 research and teaching divisions. Although each division will be concerned primarily with problems in its respective field, nevertheless close coordination of effort between divisions will be established in order to give consideration to all phases of agriculture, insofar as practicable.

Each division will be headed by a chief whose primary concern will be to organize and conduct research and to offer such courses of graduate instruction as may be deemed necessary. In selecting the chief of each research division, an attempt will be made to obtain an outstanding and well-established scientist from either the United States or one of the other American Republics. It is planned to select three North Americans and two Latin Americans for the first five chiefs. Before taking up residence at Turrialba, the division chiefs will spend some time in consultation with leaders in foreign agriculture in the United States Department of Agriculture and visit several colleges and experiment stations in the Western Hemisphere, particularly in the tropics, in order to familiarize themselves with the latest work in their respective fields.

It will be the responsibility of each chief to determine the exact

research problem that will be assigned to each graduate student. This will depend, of course, upon the chief's interest, the interest and background of the student, and available material and equipment. As conditions become familiar to the research staff, each division chief will organize at least one seminar course for the students in his division and in addition will offer at least one formal course for all of the students in the Institute each scholastic year. It is planned to keep the number of these formal courses to a minimum and since the student body will be composed only of graduates, basic courses in chemistry, physics, botany, zoology, and other sciences will not be offered. All students must become at least bi-lingual with respect to the four official languages of the Institute. It is felt that teachers of these four languages will be found among the division chiefs and research students. Plans are being made to begin graduate instruction on or before July 1, 1944. However, the research program is already underway.

The administrative staff will consist of the Director, Business Manager, and the Superintendent. Besides these, two chiefs of division will act as Dean and Head of Research, respectively. Assistants to the division chiefs will be provided in the form of a sub-professional staff, some of whom will undoubtedly be advanced research students. Administrative details will be vested in the Business Manager and the Superintendent.

A tabular recapitulation of the proposed student body and staff by fiscal periods is given below:

<u>Fiscal Year</u>	<u>Staff</u>				
	<u>Students</u>	<u>Professional</u>	<u>Sub-Professional</u>	<u>Administrative</u>	<u>Field</u>
(July 1 to June 30)					
1943-44	0	5	0	1	1
1944-45	25	5	2	3	1
1945-46	55	10	5	3	1
1946-47	60	10	5	3	1

The general program as presented above entails the erection of a physical plant according to a somewhat definite time schedule so that accommodations and facilities will be ready for the faculty and graduate students when they enter the Institute. The program visualizes an annual expansion until June 30, 1948, by which time the full complement of 60 students, 10 professors, a sub-professional staff of 5, and an administrative staff of 3, with a field staff of 1 will have been attained and all buildings and facilities completed. This calls for considerable capital expenditure during definite fiscal periods, that is, definite sums of money will be needed to erect certain buildings and provide facilities to accommodate a specific number of students and staff members at a definite time. A discussion of the integrated factors, with an estimate of the budget requirements for the Institute, follows.

Development and Action Prior to September 1, 1943.

With the above over-all program in mind, steps were taken to lay the groundwork for the entire program as well as to provide facilities for the first contingent of 25 graduate students and for the initial professional staff of 5.

The entire building program was discussed with architects and engineers and a proposed schedule of construction was drawn up. After consultation, it was decided that the \$365,000 granted by the Coordinator of Inter-American Affairs in 1943-44 should be used for the following construction :

<u>Item</u>	<u>Estimated Cost</u>	<u>Estimated Completion Date</u>
Students dormitory units A, B, C, D.	\$200,000.00	June 30, 1944
Equipment for Dormitory	20,000.00	"
Six residences for staff with servants' quarters	50,000.00	April 30, 1944
Equipment for residences and servants' quarters	8,000.00	"
Warehouse and office building	7,500.00	June 15, 1943

<u>Item</u>	<u>Estimated Cost</u>	<u>Estimated Completion Date</u>
Superintendent's and guest house	5,000.00	June 15, 1943
Construction and operating equipment	15,000.00	June 30, 1944
Experimental farm layout	50,000.00	"
Construction contingencies	9,500.00	"
	<u>\$365,000.00</u>	

As noted above, the warehouse and office building and combination superintendent's house and guest house were completed prior to September 1, 1943. In addition, considerable progress has been made on the entire farm experimental layout. Plans were accepted for the construction of the dormitory and first group of staff residences, and materials for these buildings were purchased or contracted for. In addition, to provide living quarters for the first group of students, the dormitory also will provide temporary office, classroom, and laboratory space for the use of the students, faculty and administrative staff during the fiscal year 1944-45.

The financing of the Panama Ruber Substation has already been discussed.

Contemplated Operation and Construction from September 1, 1943 to June 30, 1944

(a) Operation: The chiefs of each of the first five divisions of research and graduate instruction will be appointed by December 31, 1943. It is planned to allow each division \$10,000 for the period from now to June 30, 1944. This will cover salary and travel expenses of the chief himself and provide facilities for research and instruction which will be needed by the time the first group of graduate students enroll July 1, 1944. Therefore, the budget estimate for this item total \$50,000.

The balance of the original \$100,000 grant from the Office of the Coordinator of Inter-American Affairs for operating expenses will have been

utilized before the end of this fiscal year. It is estimated that routine operations will necessitate the expenditure of an additional \$35,000 for the present fiscal year. This amount, plus the \$50,000 for the professional staff makes a total of \$85,000 which the Institute will need for operational purposes until June 30, 1944.

(b) Construction: Continuation of the work already undertaken with funds previously provided. No additional funds needed in fiscal year 1944.

Contemplated Operation and Construction from July 1, 1944 to June 30, 1948

(a) Operation: The estimated cost of operation for the fiscal years 1944-45 and following is shown in the table on page 67-68. It is hoped that by June 1945 a sufficient number of American Governments will have ratified the Convention so that funds from that source may be made available for the operation and maintenance of the Institute. However, since the Convention will not be open for signature until December 1943, time has to be allotted for the Governments of the respective Republics to ratify the Convention, after it is signed by the plenipotentiaries, who must receive full powers from their governments for this act. After ratification the next step is the deposit of the instruments at the Pan American Union, after which time the quotas will be paid. From the time the instrument is deposited to the time the quota is received at the Pan American Union a period of six months usually elapses. Consideration also has to be given to the fact that the Congresses of the American Republics do not meet concurrently.

Since there is little likelihood, due to the element of time, that inter-American funds for the operation and maintenance of the Institute for the fiscal year 1944-45 will be available in time, the assistance of the United

States Government also is requested in order to satisfy the requirements of the Institute for that period.

(b) Construction: In order to provide the necessary facilities for research and for the increase in the student enrollment on July 1, 1945, which, of course, will necessitate an increase in staff during 1944-45, it will be necessary to begin as soon as possible a program for the construction of an additional plant. The construction considered essential for the years July 1, 1944 to June 30, 1948 is listed on the following pages. This is estimated to amount to \$890,000.

As previously stated the estimated funds which will be received from the Convention will amount to approximately \$250,000. It will be seen from operation estimated on the following pages that this will be needed for operation alone.

(c) Farm Equipment and Livestock: In order to provide necessary equipment and livestock to operate profitably the lands not used for experimental purposes and to produce food, milk, meat, etc., for use of the Institute, it will be necessary to obtain an estimated \$111,500 in addition to the funds previously outlined for operation and construction. As previously explained, the funds which will be received from the Convention will be required for operation, and there will not be any balance for equipment and livestock. The estimated cost of livestock and equipment is shown later in this report.

Request for Assistance

From the figures given above and recapitulated on page 79 it will be seen that the Institute needs, for the whole period from 1942 to June 30, 1948, a grand total of \$2,492,300, divided as follows:

Operating costs	\$1,125,800
Capital outlay (construction and equipment)	1,255,000
Farm equipment and livestock	<u>111,500</u>
	\$2,492,300

Of this total, \$465,000 has already been granted by the United States Government, and \$783,850 is to be provided under the Convention. This leaves to be provided \$1,243,450.

The Government of the United States is requested to carry to a successful conclusion the work which has already been started with its magnificent help, by making the further sum of \$1,243,450 available to the Inter-American Institute of Agricultural Sciences. It is further requested that every consideration be given to the possibility of granting this amount as quickly as possible in a lump sum. If it is not practicable to make the grant in this way, it is hoped that it may be possible to grant \$85,000 at once to cover operating costs for the balance of the present fiscal year, and to allocate as soon as possible \$837,450 to cover capital expenditures, farm equipment and livestock purchases, and operating costs, for the fiscal year 1945. Should this procedure be necessary, it is contemplated that the balance of funds needed, totaling \$321,000 will be requested in subsequent years.

OPERATION¹

	<u>1944-45</u>	<u>1945-46</u>	<u>1946-47</u>	<u>1947-48</u>
Director's Salary	\$10,000	\$10,000	\$10,000	Ditto
Director's Travel	6,000	6,000	6,000	
Faculty Salary	40,000	80,000	80,000	
Faculty Travel	8,000	10,000	10,000	
Business Manager	5,600	5,600	5,600	
Travel Business Manager	1,000	1,000	1,000	
Administration	3,000	4,500	6,000	
Medical Expenses	3,000	3,000	3,000	
Student Care	6,250	13,750	15,000	
Faculty and Student Research ²	14,500	39,000	42,000	
Farm Superintendence	3,600	3,600	3,600	
Library	4,000	4,000	4,000	
Office Supplies	2,000	2,000	2,000	
Building and Plant Maintenance	25,000	30,000	35,000	
Editorial and Printing	14,000	15,000	16,000	
Reserve	-----	15,000	15,000	
Washington Office	11,000	11,000	11,000	
Panama ³	-----	-----	-----	
	<u>\$156,950</u>	<u>\$253,450</u>	<u>\$265,200</u> ⁴	

- (1) It is assumed that farming operations will supply food of kinds produced for the dormitory and with the exception of the superintendence, will defray farming expenses. Laundry and dairy herd are considered to be self-supporting.
- (2) Special equipment, stock, etc., for research are provided in research funds.
- (3) It is assumed that funds will be obtained from other sources for operation of the Rubber Substation in Panama.
- (4) By 1947 it is expected that the total amount of the quotas received will have passed the \$250,00 mark set for the first year or two.

CONSTRUCTION

<u>Year</u>	<u>Item</u>	<u>Estimated Cost</u>
1944-45	3 Units of administration building without third floor	\$200,000.00
	6 additional residences with servants' quarters	50,000.00
	Equipment for administration building	35,000.00
	Electric generating equipment (including addn'l for Adm. B)	30,000.00
	Power Plant and laundry building	10,000.00
	Laundry equipment	4,000.00
	Dairy Products and cold storage buildings (Equipped)	78,500.00
	Animal disease laboratory (Equipped)	52,000.00
	Barns and agricultural buildings (Equipped)	10,000.00
	Community house (Equipped)	2,500.00
	Water Supply (wells and pumps)	25,000.00
	Electric lines, transformers, etc.	10,000.00
	Sewage disposal	15,000.00
	10 Employee cottages	20,000.00
	Repair and machine shop	10,000.00
	Repair and machine shop machines	10,000.00
	Roads and drainage	10,000.00
Contingencies	10,000.00	
	TOTAL	<u>\$590,000.00</u>
1945-46	Home economics and women's dormitory building	\$ 40,000.00
	Furnishings and Equipment	10,000.00
	10 Employee Cottages	20,000.00
	Recreational Facilities	10,000.00
	Barns and Equipment sheds	5,000.00
	Additional services (electricity, water, sewer)	2,000.00
	Additional roads	2,000.00
	Contingencies	1,000.00
	TOTAL	<u>\$100,000.00</u>
1946-47	3 additional residences with servants' quarters	\$ 25,000.00
	Equipment for additional residences	4,000.00
	25 Employee cottages	50,000.00
	Additional services (electricity, water, sewer)	2,000.00
	Guest House	15,000.00
	Guest house furnishings	4,000.00
	TOTAL	<u>\$100,000.00</u>
1947-48	Addition to administration building	\$ 75,000.00
	Furnishing and equipment	15,000.00
	Additional services	3,000.00
	Barns or agricultural buildings	5,000.00
	Contingencies	2,000.00
	TOTAL	<u>\$100,000.00</u>
	<u>RECAPITULATION</u>	
	1944-45	\$590,000.00
	1945-46	100,000.00
	1946-47	100,000.00
	1947-48	100,000.00
		<u>\$890,000.00</u> TOTAL

FARM EQUIPMENT AND LIVESTOCK

<u>Year</u>	<u>Item</u>	<u>Estimated Cost</u>
1943-44	No purchases contemplated	
1944-45	Farm machinery and equipment	\$50,000.00
	Dairy Herd	30,000.00
	Horses and Mules	5,000.00
	Pigs	2,500.00
	Poultry	1,000.00
	Goats	1,000.00
	Contingencies	1,000.00
	TOTAL	<u>\$90,500.00</u>
1945-46	Machinery additions	\$ 4,000.00
	Livestock additions	2,500.00
	Contingencies	500.00
	TOTAL	<u>\$ 7,000.00</u>
1946-47	Machinery additions	\$ 4,000.00
	Livestock additions	2,500.00
	Contingencies	500.00
	TOTAL	<u>\$ 7,000.00</u>
1947-48	Machinery additions	\$ 4,000.00
	Livestock additions	2,500.00
	Contingencies	500.00
	TOTAL	<u>\$ 7,000.00</u>

RECAPITULATION

1943-44	-----
1944-45	\$90,500.00
1945-46	7,000.00
1946-47	7,000.00
1947-48	<u>7,000.00</u>
	\$111,500.00

Recapitulation of Estimated Expenditures from October 7, 1942 to June 30, 1948

<u>Date</u>	<u>Operation</u>	<u>Construction</u>	<u>Farm Equipment and Livestock</u>
October 7, 1942 to January 1, 1944	(1) see footnote	(2) see footnote	-----
January 1, 1944 to June 30, 1944	\$85,000	-----	-----
July 1, 1944 to June 30, 1945	156,950	\$590,000	\$90,500
July 1, 1945 to June 30, 1946	(3) see footnote	100,000	7,000
July 1, 1946 to June 30, 1947	(3) see footnote	100,000	7,000
July 1, 1947 to June 30, 1948	(3) see footnote	100,000	7,000
TOTALS	\$241,950	\$890,000	\$111,500

RECAPITULATION

Operational Expenses, January 1, 1944 to June 30, 1945	\$241,950
Construction Expenses, July 1, 1944 to June 30, 1948	890,000
Farm Equipment and Livestoc, July 1, 1944 to June 30, 1948	<u>111,500</u>
TOTAL ESTIMATED REQUIREMENTS TO JUNE 30, 1948, EXCLUSIVE OF REVENUE TO BE DERIVED UNDER THE TERMS OF THE CONVENTION	\$1,243,450

Footnotes:

- (1) Operational expenses for this period (October 7, 1942 to January 1, 1944) are being defrayed from original grant of \$100,000 for operation.
- (2) Construction expenses for this period (October 7, 1942 to June 30, 1944) are being defrayed from original grant of \$365,000 for construction and other facilities.
- (3) Funds to be supplied by the countries ratifying the Convention as estimated in detail on page 80 as follows:

July 1, 1945 to June 30, 1946	\$253,450
July 1, 1946 to June 30, 1947	265,200
July 1, 1947 to June 30, 1948	265,200

STATEMENT OF ADMINISTRATIVE, OPERATING AND CONSTRUCTION EXPENDITURES
TO SEPTEMBER 1, 1943 UNDER GRANT-IN-AID OECMra-15

<u>Administrative and Operating Expenses</u>	<u>Total to Date</u>
Salaries of Administrative Staff	\$ 21,119.99
Travel Expense	5,526.25
Quarters Allowance	928.30
Washington Office Expense	3,954.33
Equipment	12,342.07
Costa Rica Office and Maintenance Expense	14,990.50
Total Administrative and Operating Expense	<u>\$ 58,861.44</u>
Un-expended balance of Grant (1)	41,138.56
Grant from U.S. for Administrative and Operating Expense	<u>\$100,000.00</u>
 <u>Construction Expense</u>	
Plans and specifications	\$ 7,163.12
Salaries and Expense of Purchasing Engineer and Stenographer	2,735.00
Construction Payroll	5,182.95
Construction material, including transportation and insurance	36,521.55
Construction supplies, tools and miscellaneous expense	816.88
Total construction expense	<u>\$ 52,419.50</u>
Un-expended balance of Grant (2)	312,580.50
	<u>\$365,000.00</u>
 <u>Grant-in-Aid from the United States through the Coordinator of Inter-American Affairs:</u>	
For administrative and operating expense	\$100,000.00
For construction expense	365,000.00
	<u>\$465,000.00</u>

- (1) Obligated toward operating expenses for current fiscal year.
- (2) Obligated in contract with Northern Railway of Costa Rica signed in July, 1943.

Expenditure made after August 13, 1943 by Business Manager in Costa Rica not included.

PLANS FOR FUTURE

At this time the future of the Institute appears bright. It was launched during the most difficult times of the present great war. At times it appeared best not to attempt to build a physical plant because of the war conditions. Labor and material were not plentiful in the early days of the Institute's life. Many essential materials had to be purchased in the United States and shipped to Turrialba, Costa Rica. The difficulties of priorities and shipping were discussed in the first annual report. It was not until January of this year that local conditions began to ease and more rapid progress of building the permanent structures commenced. Then in May construction funds were exhausted and a short delay was encountered until additional funds were made available.

However, with a limited staff much ground work has been laid. The fundamental development work for both research and teaching in the great fields of plants and animals is done. Plans for getting the engineering and economics work under way are developed. Adequate living quarters for students, staff and laborers will soon be ready. Considerable experience has been had in the region, and all seems to be in readiness for meeting the objectives of the Institute.

It is planned that about 25 graduate students will be in residence during the next fiscal year. Then 25 additional students will be admitted as

soon as a smoothly functioning organization is developed with the first group of students. Inasmuch as both students and faculty will carry on research, this program should advance rapidly. Excellent research by the Institute is underway on such varied things as rubber, cinchona, grapes, vegetable crops, small berries, citrus, ornamentals, etc. It is planned to get intensive work started on doing production and manufacturing immediately.

It appears that the darkest and hardest days for the Institute are over. Our treaty, which gives permanence to the organization, has been signed by thirteen countries and ratified by five, including the United States and Costa Rica. Our minimum building program will soon be completed, our land has been formally deeded to the Institute, our staff has gained valuable experience. There is every reason to believe that the Institute will go forward with a steady growth and will serve the American Republics, particularly in the tropics, efficiently and to a degree that they demand.

Every institution can use a greater and more efficient physical plant. Most of our great universities have increased in size over the years. A new organization like the Institute has so many needs that it is difficult to state which are the most urgent. On the other hand in a tropical region, much can and should be done out-of-doors. At this time, a dairy laboratory building seems to be the greatest need. This and houses for permanent workers. Much of this could be done with local material. However, some equipment for laboratories and processing must be obtained from the United States. A continuous program for bettering the physical plant should be adopted. Such a program is suggested in the five-year plan which may be found in another part of this report.

APPENDIX I

MEMORANDUM OF UNDERSTANDING

The Coordinator of Inter-American Affairs in June, 1942, made a grant of \$465,000 to the Pan American Union as Fiscal Agent for the Inter-American Institute of Agricultural Sciences, (hereinafter referred to as the Agricultural Institute). The funds were granted on the condition that \$100,000 thereof would be used for operating and maintenance expenses, and that \$365,000 would be used for construction of buildings and other facilities pertaining thereto.

In accordance with this grant, the Agricultural Institute undertook to construct certain buildings and facilities at its principal field office at Turrialba, Costa Rica. Contracts were entered into between the Agricultural Institute and the Northern Railway Company for the construction of certain buildings and facilities. It was estimated by the Agricultural Institute that the buildings and facilities undertaken to be constructed could be completed with the monies granted by the Coordinator for construction purposes. It has now been determined that it is not possible for the buildings to be completed with the funds available and construction has been stopped due to lack of funds.

Dr. Bressman, Director of the Agricultural Institute, has requested the Office of the Coordinator of Inter-American Affairs to undertake to complete the buildings now under construction. This request has been concurred in by Dr. Rowe, Director General of the Pan American Union.

The Department of State has requested the Office of the Coordinator to undertake completion of the buildings presently under construction. The Coordinator of Inter-American Affairs has agreed to undertake the completion of the construction now underway at Turrialba, Costa Rica. The construction is to be undertaken by the Institute of Inter-American Affairs (hereinafter referred to as the Institute), which is a corporation within the Office of the Coordinator of Inter-American Affairs.

In undertaking to complete the construction of the buildings and facilities now underway and such additional facilities as may be agreed upon, it is understood and agreed to by the Parties to this Memorandum of Understanding that:

1. The Agricultural Institute desires the Institute to undertake the construction of the buildings and furnishings as described in Dr. Bressman's memorandum to Mr. Rockefeller of July 6, 1944, as follows:

<u>"Job</u>	<u>% Completion</u>	<u>Estimated Cost to Finish</u>
Dormitory (Units A, B, C, D.)	60	\$110,000
Faculty Houses (6)	30 (Av.)	25,000
Laborers' Houses (10)	40 (Av.)	15,000
Electric System	0	5,000
Sewage System	0	2,000
Equipment	0	26,000
Contingencies		25,000
May account of Northern Railway Co.		<u>30,000</u>
		<u>\$238,000</u> "

2. The Institute agrees to undertake to complete the buildings and facilities described in paragraph No. 1 and to pay all cost involved thereof.

3. The Agricultural Institute will make available to the Institute all materials, supplies and equipment purchased with the \$365,000 construction fund described above, which materials, supplies and equipment will be used by the Institute in connection with the construction program undertaken by the Institute.

4. All construction undertaken by the Institute will be for the benefit of the Agricultural Institute and title thereto shall be in the Agricultural Institute.

5. It is further agreed by the Parties hereto that the Institute may within funds available and within its discretion undertake the construction of additional buildings and facilities and the purchase of equipment and furnishings when requested by or approved by the duly authorized representatives of the Agricultural Institute.

6. It is also agreed that it will be the policy of the Institute to follow the existing plans relating to the construction program but the Institute shall have the authority to make such changes as necessary in order to carry the construction forward to a satisfactory conclusion. However, changes in design or major changes in construction shall first be approved by the representatives of the Agricultural Institute.

IN WITNESS WHEREOF the parties hereto signed and affixed their signatures on the 20th day of July, 1944.

INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

By _____ (Signed)
Earl N. Bressman

By _____ (Signed)
Robert A Nichols Subject to Approval
by the Director

By _____ (Signed)
Rice Ober Subject to Approval
by the Director

THE INSTITUTE OF INTER-AMERICAN AFFAIRS

By _____ (Signed)
Harold B. Gotaas

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IICA de la OEA

AUTHOR

INFORME ANUAL 1943-44

TITLE

DATE DUE

BORROWER'S NAME

22/07/97

G. Ruiz