



# The Balcarce, Argentina Project

BUENOS  
AIRES  
BALCARCE  
MAR DEL PLATA

## END OF PROJECT REPORT

By Dr. Garland P. Wood, Chief of Party and Agricultural Economics Advisor

Michigan State University in cooperation with  
the United States Agency for International Development  
M.S.U.—A.I.D. Contract/L.A.245



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MICHIGAN STATE UNIVERSITY  
Balcarce, Argentina project

Final report on the contract between the Agency for International Development and Michigan State University designated AID/LA-245 and signed February 3, 1965. In this contract M.S.U. agreed to provide technical services for the strengthening of the Balcarce college of agriculture. The implementing document was project agreement no. 37 titled Agricultural Development - Land-Grant College System signed by the Agency for International Development (AID), the National Development Council (NDC), the National Institute of Agricultural Technology (INTA), and the Catholic University of Mar del Plata (UCMP). The scope of program and proposed method of implementation of the project agreement were set forth in the Memorandum of Understanding executed between MSU, INTA, UCMP and Sociedad Cooperadora of the college of agriculture at Balcarce on April 27, 1964. This memorandum was incorporated into project agreement no. 37 as Annex A.

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project 1969-1970

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## ACKNOWLEDGMENTS

My colleagues and I and our families who have lived and worked at Balcarce want to express our thanks and best wishes to our Argentine coworkers. Thank you for your understanding and friendship, for helping us to know and appreciate your country. Thanks too for the spirit in which you have received our suggestions and recommendations. Above all, we wish to express our appreciation for the professional cooperation evidenced to build a new and different educational institution at Balcarce. In the words of my predecessor at Balcarce, Dr. Ronald Nelson, "The opportunity exists at Balcarce to build a great university dedicated to serving not only the zone, the province and the country but all mankind. I believe it can and will occur." Each of you has had a part in this building of a college and hopefully a university at Balcarce. We are content to have shared this effort with you.

We also wish to express our appreciation to the officials of USAID, Washington, D.C. and AID officials of Buenos Aires for your continuous and vigorous support. We are grateful too for the help of the Embassy staff at Buenos Aires in the solving of those many small but vexing problems.

Finally, we wish to express our thanks to the officials and staff of INTA in the many courtesies you have extended to all of us.

Garland Wood

## Foreword

In 1963 Michigan State University was invited by an Argentine national research and extension organization (INTA) and by a private university (Catholic University of Mar del Plata) to help create a 'new approach' educational institution at Balcarce. The new orientation would be an institution that put as its objective helping to train the leadership and solve the problems of rural Argentina. The Agency for International Development of the United States government was asked to fund this assistance program as universities generally lack or are prohibited from using their financial resources for such projects.

It requires some explanation for one to understand why four distinctly different institutions united in this common educational effort and each found it to his vested interest to do so. The explanation may be helpful to future policy makers at governmental and university levels who must evaluate their respective areas of concern for colleges and universities of the developing nations. If federal funds are not available in the future, can U.S. universities afford to fund the building of educational bridges with universities of other lands? Can they afford not to in tomorrow's world? The university of the developing country-- what is its future role? Dare it develop ties with universities of the industrial nations, especially ties funded by foundations or the government of that foreign university?

In order to answer these questions we need to understand what the university represents in the developing country. Afterwards we shall discuss the importance of building university to

university linkages and the reasons respective governments may believe it to their best interests to facilitate such developments.

### Universities in Developing Countries

Universities represent significant, viable, prestigious, influential social institutions in all nations.<sup>1</sup> In new and developing nations their standing is especially high. The university is a tangible, visible symbol of actual or incipient nationalism, a source of national pride, an expression of national aspirations. In many nations where institutions including the government are unstable the university stands out as one of the few institutions demonstrating a remarkable capacity for survival. It is logical then that foreign governments, agencies and universities would want to establish relationships with these universities of the developing nations but for different purposes.

The universities of new and developing countries are of major importance in determining the direction and rate of their nation's involvement. If this judgment is correct and if the United States government wishes to remain effective in the developing countries, it follows that it is in the U.S. general public interest to support universities of the new and developing lands.

In reality the government of the U.S. finds it difficult to implement this national policy. For example, the university of

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<sup>1</sup>Burton P. Friedman, "Needed: A National Policy Toward Universities of the Underdeveloped World". Public Administration Review, Vol. XXVIII, No. 1, Jan/Feb. 1968.



Latin America is proud of its autonomy from its government. It is suspicious of overtures from its own government. Any U.S. government program of aid or information would be doubly suspect. First, because such programs rest on enabling agreements with the host university government, and secondly because as a foreign government the U.S. motives would hardly be disinterested. Consequently U.S. governmental interests can best be served by increasing the effectiveness of those U.S. universities working with the universities of the developing nations.

Few of the above obstacles that impede the government representative stand in the way of the university representative. He comes to teach, to study, possibly to advise or criticize. He represents scholarship, his own university and the university community. He shares with his colleagues his knowledge, his judgments, his interests, his enthusiasm.

If the visitor is well received, his university may build a fruitful university to university relationship that will be lasting and beneficial to both institutions. Universities are storehouses of knowledge and experiences. The shared research, joint conferences, exchange of staff and sharing of information are cumulative in effect and need not be interrupted by stresses and strains of the diplomatic tugs of war.

"Colleagueship" is the motivation, the power to make inter-university relationships reciprocal. Whatever the culture or nation, its scholars commit themselves to study and resolve the most pressing problems facing their societies. It is this sense of common cause commitment that obligates scholars to share their

insights, research results, methodologies and professional skills. Thus universities through this colleagueship find a commonality of interest in the present and for the future.

The Catholic University of Mar Del Plata sought the help of a sister university in Michigan to create a new educational institution in Argentina, an institution grounded in the philosophy of service to its society--the land grant philosophy. INTA needed the graduate of such a college to research the problems of agriculture and communicate the research results to the farmer and those who serve him. Argentina needed these leaders in the agricultural industries, the agricultural agencies, and in the positions where national policies are made. MSU wished to build an educational bridge to the intellectual leaders of an important country of the world. It was then logical that the four disparate institutions, MSU, INTA, UCMP and AID, found a common cause in creating a new and more effective educational institution at Balcarce.

As one travels a country or state for the first time it is well to look at a map to get oriented. The map gives only selected details of the region so as not to confuse the reader with too much information. It is a summary, an outline, but a very useful one.

The following section is such a map. It is a summary of the Balcarce project from its early inception. In its pages it describes some of the participants, the institutional setting of the college in Argentine education, the difficulties of change and a suggested blueprint for the facultad's future. After one has looked at the major happenings of the project noted in the summary statement you start at the beginning of the educational

journey following chronologically the sequence of events and work that connected the major happenings.

## SUMMARY

Early Developments

The project efforts this report seeks to evaluate took place in Balcarce, Argentina, during the period 1965-1970. The purpose of the project was to help establish an educational institution combining teaching, research and extension in the rural community of Balcarce, some 240 miles south of Buenos Aires. The following is a summary of the cooperative efforts made by MSU colleagues, AID officials and Argentine co-workers to build a creditable educational institution at Balcarce.

There is a strong temptation when one looks back over the efforts of some five and one half years at Balcarce to view past events as if all were well ordered and well executed happenings. Fortuitous happenings we credit to our excellent efforts, present and past failures we minimize or ignore. This is a very human approach since we are so success oriented. However, such partial evaluations are dangerous since they are misleading to others hoping to profit by our experience and who seek guidelines on institution building. Through this report we shall attempt to delineate the early objectives of the project, trace the uneven pace of development of the college through 1968, summarize the work during the last two years of the project and outline the nature of the job yet to be done. The report includes both the achievements and the failures.

GENERAL OBJECTIVES OF THE MSU - BALCARCE PROJECT

- A. Improve the organization of BAC through the development of subject matter departments, rules and regulations regarding

the administration of the school, and plans for physical facilities.

- B. Develop a curriculum more suited to training of agriculture technicians so they can cope with technical problems of modern agriculture.
- C. Coordinate the integration of teaching, research and extension.
- D. Select and program participants for training in the U.S.

The above objectives summarize what the drafters of the proposal thought could be accomplished through the creation of a "better" educational institution at Balcarce. It does not explain why a special effort was necessary using AID funds and foreign experts rather than through the natural development of local institutions nor why Michigan State University was asked and agreed to this responsibility.

The Traditional Agricultural College. We will need to take a brief look at the traditional agricultural college in Argentina to understand the push for a new approach and also to be aware of the resistances to change. The paper titled "The Regional Rural University of Argentina" presents an evaluation of the agricultural college of Argentina.<sup>1</sup> These Facultades de Agronomia as they are called may have furnished adequate agricultural leadership to service Argentine agriculture a generation ago. It is clear that they have not continued to produce the quality and quantity of technicians, specialists and farm leaders needed to keep Argentina

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<sup>1</sup>The Regional Rural University of Argentina. Garland P. Wood. Aug. 1970. Mimeograph.

abreast of world changes in agriculture.

Partly as a result of this lack of trained leadership Argentina has lost her once dominant position in the world exports of beef, grains, wool and other agricultural products. It is true that political decisions were and still are taken at the national level which limit the incentives for increased production. Yet there was evidence that the colleges of agriculture were not fulfilling their educational role and so national and regional leaders looked for a means of injecting a new philosophy into the traditional agricultural colleges.

Attempts to Adjust. Sporadic attempts were made to directly change the national universities that administered the agricultural colleges. Inertia and political activists combined to thwart such remedial programs. Finally in the late fifties a national law was passed permitting the creation of private institutions of higher learning. This act by allowing the creation of private universities also permitted the creation of 'new' agricultural colleges. The Catholic University of Mar del Plata was created under this act in 1958. In 1960 this university organized a Facultad de Agronomia to provide a 5-year training program leading to a degree entitled "Ingeniero Agronomo".

Blending the Theoretical and Practical. Some officials of this new university realized that an agricultural student should work with the soil, plants and livestock as well as attend the lecture hall and laboratories - a blend of the practical and theoretical. The city classroom of Mar del Plata could offer only the theoretical. At the same time the national research

and extension agency (Instituto Nacional de Tecnologia Agropecuaria) INTA was seeking trained Ingeniero Agronomo with more practical training. INTA and the university sought to gain their common objective by transferring the college of agriculture from the city of Mar del Plata to the Balcarce Agricultural Experiment Station some 50 miles to the northwest in 1962.

This arrangement was formalized in March 1963 and a joint request by INTA and the University was presented to US/AID Argentina for help in setting up a land-grant type college for Balcarce. The request included (1) a pre-contract survey, (2) a visit to U.S. agricultural institutions by an Argentine study team, (3) the preliminary financial support of such study teams, advisory assistance and some equipment, plus (4) help in preparing a loan application for the construction of the Balcarce college campus.

Progress was slow and it was nearly two years later, February 8, 1965, that a contract was signed between US/AID and Michigan State University to provide technical assistance to the Balcarce College of Agriculture and INTA in the development of a land-grant type institution. Objective four of the original request asked for a feasibility study that would be used as a basis for a loan application for funds to construct physical facilities for the Balcarce College of Agriculture. A study team of four MSU professors spent a month in April - May, 1965 gathering the data for this report.<sup>1</sup>

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<sup>1</sup>Economic Analysis and Feasibility Study of Balcarce Agricultural College, MSU, November 1965.

Loan Turned Down. Although this extensive report and campus building plans were submitted to AID Washington the loan was not made. From the beginning of the official discussions in 1963 the plan had envisioned an integrated mix of technical assistance and physical facilities. The turn down of the building loan after such extensive preparations disheartened the Argentine supporters and caused MSU to re-evaluate its priority of commitments in Argentina. The pace of development of the college was definitely slowed.

It was in January 1966 that MSU's first long-term advisor arrived in Balcarce. MSU found difficulty in recruiting the number of technical staff called for by the contract. When Dr. Wood arrived in February 1969 MSU had committed fewer man years of long-term advisor support to the project than had been programmed. The host institution at Balcarce also had difficulty in meeting its commitments. Local funds were not raised in sufficient amounts to assure the viability of the college. Argentine personnel were not available during the first contract years to fill the participant training scholarships in U.S. universities funded by the project. Classroom and office space were slow in being constructed. As late as 1967 there were statements from supporters and detractors alike that the college would not survive.

Development Problems. There were many serious problems facing this young teaching unit that was being grafted onto a research-extension effort of national status. There were organizational problems. How was the college to be related to



the research-extension effort of INTA so that its teaching role would allow the effective coordination of teaching, research and Extension? There were financial problems. As a part of a private university the college was denied access to public funds. Education has traditionally been a governmental responsibility in Argentina so the individual citizen is unresponsive to pleas for educational funds. There were curriculum problems. If a better trained Ingeniero Agronomo was to be trained at the Facultad then new subject matter must be presented and taught more effectively. There were problems of teachers and administrative staff. Teachers tend to follow the teaching patterns of their own instructors be they good or bad. The traditional pattern of instruction was part-time instructors lecturing from notes they had accumulated over the years presented without the use of audio-visual equipment and with little reference to current literature. The student is expected to take notes in class, memorize them with complete recall at examination time. This system has led to a high number of contact class room hours per week, 30 to 35, few outside class assignments and limited library use. The number of classroom hours was reduced at Balcarce in the mid contract phase but the custom of few outside class assignments and limited library use persists.

People Change, Problems Persist. The above problems were very much in evidence in January 1966 when the first MSU long-term faculty member arrived at Balcarce. In February 1969 when Dr. Wilkinson and Wood arrived in Balcarce the same problems

were still evident. Progress had been made and there was an added awareness by the Argentine staff of the variety and complexity of the problems, but such institutional arrangements are hard to change. When the last of our MSU team left Balcarce in December 1970 progress had been made in each of these problem areas. We might have made more progress were it not for the fact that throughout the final two years of the project there were the official and unofficial reports of the termination of the AID work in Argentina. This made it difficult for us to persuade the Argentine co-workers to do the long-term projecting of inputs needed to develop educational institutions. In spite of this handicap the final two years of the project saw accomplishments that we shall now review.

The Teaching Priority. The agreement asked that MSU help create a land-grant type institution integrating teaching, research, and extension directed to the solution of the problems of rural Argentina. Since there was already a vigorous research, extension program at Balcarce the first priority was strengthening the teaching component. This priority was maintained throughout the five years of the project even though short-term consultants and long-term advisors also worked with the research and extension programs. It was within this general teaching priority but which also included work with research, extension and administration that our team began the last two years' efforts at Balcarce.

#### THE CURRICULUM

Curriculum Specialization. During the first months of 1969 there were four MSU staff members at Balcarce representing the

fields of Biological Science, Soils, Agricultural Engineering and Social Science. We concentrated much of our efforts on studying the course offerings at the Facultad during these early months. The contract had recommended the development of areas of specialization in the curriculum, but these had never been implemented. The curriculum offered for the Ingeniero Agronomo degree at Balcarce was not noticeably different than the curriculum offered in other Facultades de Agronomia. Dr. Wood worked with individual professors and then with department chairmen and staff in the drafting of a curriculum allowing specialization in the fourth and fifth years of this program. This proposal was mimeographed and accepted by most of the teaching faculty and the Dean in August 1969.<sup>1</sup> On the basis of this agreement Dr. Wilkinson and the Ag. Engineering staff began the preparation of materials for the new classes to be offered in their field of specialization. Welding, wood cutting and metal working equipment were ordered to be used for teaching, research and extension work. Professors in the fields of soils, economics and plants reviewed their course offerings to ascertain needed new courses for specialization and the reorganization of existing courses.

English in the Curriculum. Another change in curriculum was the proposed requisite of English courses. Students and faculty members were in agreement that the graduating student

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<sup>1</sup>Study Concentration Areas. Mimeographed in Spanish only. August 1969. Garland Wood.

should know how to read and speak English. English is required in their high schools but the quality of instruction is generally poor. Funds were therefore put into the budget for the language laboratory equipment. Since the facilities would also be available for the training of INTA specialists, INTA agreed to build the building and the desks. The language laboratory facilities would also be made available to residents of the community on a fee basis. By August, 1970, the language laboratory equipment was installed in the new building. The software of books, tapes and workbooks were on hand and a short-term specialist on language instruction was helping train and select the future language instruction staff. On this occasion U.S. Ambassador Lodge came for the dedication service along with the national president of INTA, rectors of various universities and other dignitaries and friends of the college. Euphoria was high and here President Lanusse of INTA expressed his desire that the model established at Balcarce could be duplicated in other strategic locations.

Biology in the Curriculum. The Biological Sciences had received considerable support prior to January 1969. Drs. Ruppel and Taboada had helped plan the field and Dr. Taboada had set up the course and laboratory exercises for Biology. Microscopes, glass ware, instruction models and a refrigerator for the biology specimens had been purchased. The last four months of Dr. Taboada's assignment in Argentina were spent in rewriting the workshop assignments and working with the teaching staff in Biology.

THE FACULTY

The full time teacher is rare in Argentina universities. Some teach in two or more institutions in different cities. Other professors may gain their major income from their business, or professional practice or outside investments. At Balcarce there are three arrangements. There is the part time professor driving once, twice or three times a week from Mar del Plata to dictate his lecture. There is the INTA researcher at the experiment station paid full time by INTA who teaches one or more courses at the college during the academic year. There is the full time college staff member who also carries out some research with the experiment station.

Each of the above group of teachers had or caused difficulties. Many INTA personnel felt they were not financially nor professionally rewarded for the time they spent in teaching. The traveling part-time professor spent little time before or after class with the student and showed little or no interest in the use of available audio-visual equipment, the use of textbooks and work books, new instructional methods and procedures of examination. The full time college staff member has only recently gained access to national research funds in specified fields to complement his teaching responsibilities.

Our team worked to build an esprit de corps among this disparate group of teachers both through our long-term advisors and short-term consultants as well. We purchased audio-visual equipment and brought down consultants to demonstrate this equipment's usage in the classroom. Dr. Robert Davis came from MSU's

Educational Development Program to advise them on the psychology of learning and what this implies in methods of instruction and examination procedures. Wood's final act at Balcarce was to set up an Excellence in Teaching award to give recognition to the innovative and dedicated teacher.

### ADMINISTRATION

The director of Balcarce experiment station is titular head of the agricultural college as well. The dean of the college has assumed his responsibility to be teacher and researcher as well as administrator of a college of 300 students. The academic secretary of the college is responsible for class scheduling, record keeping, plus teaching at the college. One of the major weaknesses of the administration is lack of planning. The administrators say they have no time to plan after solving the day to day pressing problems. The result is that each day's problem brings an ad hoc solution and there are no long run goals to give direction and balance to their decisions. In August and September of 1969 Wood drafted two position papers to invite discussion by the teachers and administrators at the college. In the first paper he outlined the objectives and limitations of the Facultad de Agronomia in relation to Argentina's development.<sup>1</sup> The second paper summarized the status of the present agricultural education effort at Balcarce, noted some of its shortcomings and then gave some of the objectives he would suggest for the college.<sup>2</sup>

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<sup>1</sup>Op.Cit. The Regional Rural University of Argentina.

<sup>2</sup>A Regional Rural University at Balcarce in Thirteen Years. Garland Wood. September 1970.

The purpose of the two papers was to stimulate discussions and formulate long range plans and goals by the faculty and administrators. Discussions started with a two day evaluation meeting held in mid-November. A long range plan for the college had not yet been drafted when the project terminated in December 1970.

The project did purchase a photo copier and other limited equipment to facilitate the future work of the college administration.

#### FUNDING

The lack of funds has been a serious problem throughout the life of the college. As a private college it does not have access to public funds. A recent change in the law permits such funding if funds are available--but the pressure for public funds effectively screens out such permissive funding outlets. Operating a college on student fees is unrealistic for an agricultural college. Securing philanthropic donations to complement student fees runs against tradition in Argentina.

In 1967 a major organizational funding drive was started in various cities of Central Argentina. The college received excellent publicity and the AID funds committed to the project also helped the college through a most difficult financial period since it included the payment of the salaries of some faculty. However, the funding drive was terminated before the supporting organizations were fully organized and little long-term financing resulted.

In 1970 Wood met with various faculty and friends of the college to see if a better long term funding organization could be set up in the Balcarce area. After several discussions he drafted a plan incorporating the shared ideas to serve as a draft for follow up discussions.<sup>1</sup> The dean does not see it as his responsibility to seek public funding and the Director of the experiment station has not assumed this as his responsibility either. Thus insufficient funding continues to limit teaching facilities, the purchase of additional books for the library, and the hiring of personnel to allow teachers and administrators more time to plan. Funds are not available for the revision of courses, to provide minimal health facilities, to secure counseling personnel and recreational facilities for the students.

#### THE STUDENT

His Selection. The majority of students at Balcarce Agricultural College still come from the urban homes of Buenos Aires, La Plata, Mar del Plata and Balcarce. He or she is admitted to the college on the basis of a double screening. The first selection is on the basis of an acceptable high school record and a certificate of graduation. All applicants meeting this criteria are invited to the Facultad during the summer vacation of January and February. At the college they enroll in classes of mathematics, chemistry, physics and biology with the top sixty of seventy admitted to the freshman class. The number admitted is supposedly based on those judged capable of doing university level work, but more realistically

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<sup>1</sup>Funding of the Facultad de Agronomia de Balcarce, March 19, 1970



it is based on numbers of students the college can handle. The student pays tuition for these pre-entrance courses plus the cost of room and board in Balcarce or other nearby location. It is an expensive way of selecting students, but until Argentina accepts and uses standardized testing as a way of screening their students this pre-entrance course system will continue.

Student Life. The student surviving the entrance course hurdle enters a five year set curriculum with no electives permitted to date. The student at Balcarce is politically inactive compared to his urban counterpart. The college has no dormitories and so most of the students live in private homes in Balcarce or group rent a house hiring a maid to cook and clean. Some make the long trip to Mar del Plata each day spending three to four hours traveling time. Students are interested in dormitory possibilities but administrative leadership thinks dormitories would invite student activism.

The student at Balcarce is beginning to question the utility of the Ingeniero Agronomo degree as presently organized. He is concerned about the quality of the instruction and the lack of commitment of some professors.

His training in the social sciences is weak but he is keenly interested in the discipline of economics. He believes that the oral examination tests more on the basis of luck than of ability, luck if he gets easy question, or is examined before the professors are too tired, or gets a question that one of his predecessors handled well and told him about.

Textbooks. The student is generally appreciative of the RTAC program introduced at Balcarce.<sup>1</sup> Although books are an additional expense to him he sees the advantage of having good textbooks for future reference. In addition he sees the RTAC program as a means of requiring professors to up-date their lectures. He knows the program has been of help to the college in securing reference books for the library. Although transportation problems make it difficult for him to make full use of the library he recognizes the need of the library for his professional training.

Planning. This college has achieved much in ten years but if it is to maintain direction and not dissipate its limited resources it must plan--now. It will need to decide on its objectives, set the means of achieving these objectives and select the means of evaluating their progress. In order to get this important planning discussion started Wood drafted a target

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<sup>1</sup>The RTAC (Regional Technical Aids Center) program translates into Spanish the outstanding textbooks in the basic university courses. The textbooks translated are selected by a panel of U.S.-Latin American scholars. The second part of the RTAC program is making these books available to the professor and student at a cost that will encourage their usage. This encouragement is done by setting up cooperative book stores in which an initial pledge of money is matched by an equivalent value of RTAC books. This initial amount of money and books becomes the basis for a rotating fund that increases with proper management yet makes textbooks available to students and teachers at savings as high as 35%. Dr. Wood initiated the request for this program with AID Argentina and the RTAC representative, Mr. Perkins. The initial pledge was \$2,500 from the AID Mission and a matching contribution in RTAC books. This amount was increased in late 1970.

paper for others to review.<sup>1</sup> In it he presented his ideas for the development of a Rural University at Balcarce--a much expanded facultad. He first discussed the pieces of the education program now at Balcarce. Then he talked about the pieces that are nearing implementation and finally the future pieces that are now under discussion or could be included in the discussions. The following pages contain the central points of this position paper.

#### THE PRESENT SITUATION

Research Station. At Balcarce there is now a research station of 62 specialists divided into the departments of Soils, Economics, Animal Production and Vegetable Production with an administrative department assisting the director. Of these 62 specialists 16 have a graduate degree at a Master's level and four have degrees at a Ph.D. level. Presently 10 are in training abroad at a post graduate level. The station is amply provided with lands for research and each year there is a growing number of laboratories, offices and equipment for the use of the specialists and technicians.

The Extension Service reaches the rural clientele for which the regional research station of Balcarce has responsibilities. It's 20 centers include 40 professionals working as agricultural agents, leaders in Home Economics, and 4-H youth programs. Seven of the centers have leaders in Home Economics, another seven have youth program leaders. The central office at Balcarce has program leaders and an overall coordinator of the extension program.

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<sup>1</sup>Op.Cit. A Regional Rural University at Balcarce in Thirteen Years. Garland Wood.

The Facultad has a student body of approximately 300 students. The curriculum is a fixed five year sequence of courses. The first three years are taught on a semester basis, the last two years are taught on a quarter system. Some 83 staff are responsible for teaching in the Facultad for at least one course per year. Eighty eight hours or 38% of the instruction is given by visiting professors from Mar del Plata or other locations. INTA specialists numbering 40 dictate classes for the Facultad. Members of the Facultad staff give the remaining courses and carry out research responsibilities alongside INTA personnel.

A graduate program has recently been added to the work here at Balcarce. The general direction of this graduate program is centered at Castelar and presently covers the fields of Agricultural Economics, Animal Production and Extension. The only field of study currently taught at Balcarce at the graduate level is Animal Production. The first three months of this Animal Production work is taught at Castelar. The remainder of the courses including the research work are carried out at Balcarce.

#### PROJECTS IN THE TALKING AND PLANNING STAGE

Veterinary Studies. An exciting new program is already starting to take shape at Balcarce. This program deals with the field of Veterinary studies. A core of seven professionally trained staff are already at work with another two receiving postgraduate training outside Argentina. The present core staff has already established important contacts with practicing veterinarians in the field. The staff is currently planning the research and teaching responsibilities of their discipline. The

plan of the core staff is to start with a graduate teaching program. This is an unusual procedure since one usually builds a graduate program on the basis of a well developed undergraduate program. However, there are three ongoing undergraduate veterinary programs in Argentina. Additional veterinary programs are in the planning stage in other cities. Argentina has no graduate program and since Balcarce will shortly have a core of veterinary faculty capable of teaching graduate programs the inverted order of establishment may be a wise one.

Home Economics. There is the possibility of developing a School of Home Economics or Human Ecology in the Balcarce - Mar del Plata area. This is a new profession to Argentina and some classify it under Institute of Family and Community Development. In other countries the discipline provides the professional training to leaders in textile and other industries furnishing consumer products for the home. It provides trained personnel for universities, extension, 4-H leader, hospital nutritionists and leaders in community development. Dr. Baker, our Home Economics consultant, has made her preliminary recommendations to the administrative officers in INTA for further study. Dr. Baker recommends that both the Rosario-Pergamino and the Balcarce - Mar del Plata areas be considered favorably for the location of this future institute.

Economics. There is some discussion about the creation of a Facultad of Economics at Balcarce. This Facultad might encompass the teaching efforts of Psychology, Sociology, Economics, Geography, Communications, etc. until such time as these

disciplines become more fully established. If this Facultad were to assume the responsibility for the above disciplines and their related research and extension efforts, then it might be more properly called a Facultad of Social Science. Wood's recommendation would be to retain this effort at a departmental level until there is a more evident need for creating a Facultad.

Agricultural Mechanization. The work of agricultural mechanization is already underway here at Balcarce. This field of work should be the most rapidly developing of all over the next ten years. Argentina is ideally suited for the use of mechanized equipment in ground preparation, planting, application of insecticides and herbicides and in the harvesting of crops. Rural electrification, all weather roads and better communication systems will give an added push to Agricultural Mechanization. The next decade should see a tremendous increase in the processing and transporting of agricultural products for the internal markets of Argentina and for the world markets as well.

The critical question is will the Facultades be training the specialists needed for research in agricultural mechanization, for industries, the specialist that Facultades and universities also require to teach future generations? Dr. Wood recommended that Agricultural Engineering be given department status even though the present staff is limited. Students in the fourth and fifth year of course work could do more of the actual repair and adjustment of the station equipment to gain necessary practical experience.

The Statistics Center. There is another educational unit that is important to the future of The Regional Rural University of Balcarce, RRUB. This is the statistics center. Administratively it could be attached to any of the existing departments. If the decision is to give it a separate administrative status, it would seem simplest to have the administrative head report directly to the Rector. Decisions will need to be made in the near future as to the level of computer services to be placed at Balcarce. Will the main computer be located at INTA Central or space rented from commercial units? At present there is general agreement among computer using specialists at Balcarce that punch and verifying equipment and a specially trained programmer are urgently needed. MSU's project has bought five electronic calculators for this Statistics Center as specific evidence of the interest in this field.

#### SOME MISSING PIECES

The rural university of which Wood speaks is like the motor for a car with the community being the chassis. The university needs to be in gear with the society around it. Otherwise the motor makes a lot of noise but goes nowhere. Part of the clientele the university should be serving is the adult. In his general paper<sup>1</sup> Wood pointed out the composition of this adult education program and how it has not only challenged the universities in many nations, but become a significant part of the total effort.

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<sup>1</sup>The Regional Rural University of Argentina. September 1970.

Here in Argentina the human resource is lacking the skills and cultural enrichment the university can provide. Wood recommended beginning initial discussions as to the feasibility and advisability of creating an adult education department.

Transportation. There is another serious question facing the college. Can one build a rural university in which many of the professionals and students spend three hours a day traveling to and from work? Can you afford to transport increased numbers of students to the bedrooms of Balcarce where neither libraries nor recreational facilities meet their needs? Presently the Facultad spends hundreds of dollars per term to transport students to and from Balcarce. Yet this system does not allow for the evening and weekend uses of the library and laboratories. Nor does it replace the buses once they are worn out. If you double the number of undergraduate students over the next five years and add another 100 graduate students the costs multiply. If one adds additional buses so that the library can be used in the evening and on weekends and so that individual laboratory work can be carried out, the costs will go much higher.

A University Campus. One answer to this ever more pressing problem is the building of a university campus. Such a campus including dormitories, classrooms, and recreational facilities would be an evolving one based on a master plan. Dormitories would house the number of students desiring to live on campus. Faculty and INTA staff members wishing to live on campus could also be included in the building plans. Preliminary cost return studies that Wood made indicate that comfortable dormitories can



be built and all costs amortized in ten years. These costs include 10 per cent interest, payment of the loan, heat, electricity and repairs. The monthly cost is less than the average student now pays in Balcarce. These dormitories include study rooms and a recreation room for each dormitory.

For those who worry about campus disorders, it is relevant to point out here that in this electronic age students hardly need physical proximity to organize and carry out disorders. Rather than being a center of disorder the rural university and its campus can serve as a vigorous sponsor for the needs of the entire rural community. As the university assumes a position of leadership in the campaign for rural betterment "it becomes the institution that helps transform rural Argentina."<sup>1</sup>

### CONCLUSIONS

In brief then one can see a rural university developing here from the pieces of the educational puzzle we now have. There is the reorganized extension system reaching out in a much more dynamic way to serve the education needs of not only the rural people but the urban centers of the region as well. The completion of the communication center at Balcarce should help Extension reach its clientele more effectively.

The undergraduate work of the faculty will be forced to make rapid changes if it is to remain relevant in this age of exploding knowledge. It may choose to teach a general background course of

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<sup>1</sup>Hannah, H.W. Resource Book for Rural Universities in the Developing Countries. Page 2

studies leaving the special training for the graduate schools. This may be a promising possibility if the graduate schools can gain sufficient resources for the many areas of specialization. Were this to happen Dr. Wood would recommend the shortening of the present curriculum to four years with a two year graduate program. Another alternative is one already drafted in which the course concentration takes place during the 4th and 5th year. This latter alternative is much more realistic since it is highly unlikely that there will be sufficient resources at Balcarce in the next five years to teach graduate programs in four or five fields of specialization.

There will undoubtedly need to be a considerable strengthening of the economic and other social science work here if the rural university is to reach the balance of disciplines the word university implies.

If this institution continues its mixed support base of private and public funds then it will need to be much more aggressive in seeking private funds. A top official at RRUB will need to spend most of his time in securing private funds. The failure to resolve this funding problem of the teaching faculty will seriously weaken the teaching, research and extension balance needed at Balcarce, and jeopardize the development of RRUB.

#### ADMINISTRATIVE ORGANIZATION

There are three major principles of administration that we may point to as we look at the organization of RRUB. The first principle is that a problem should be resolved at the lowest possible echelon of decision making. This requires a delegation

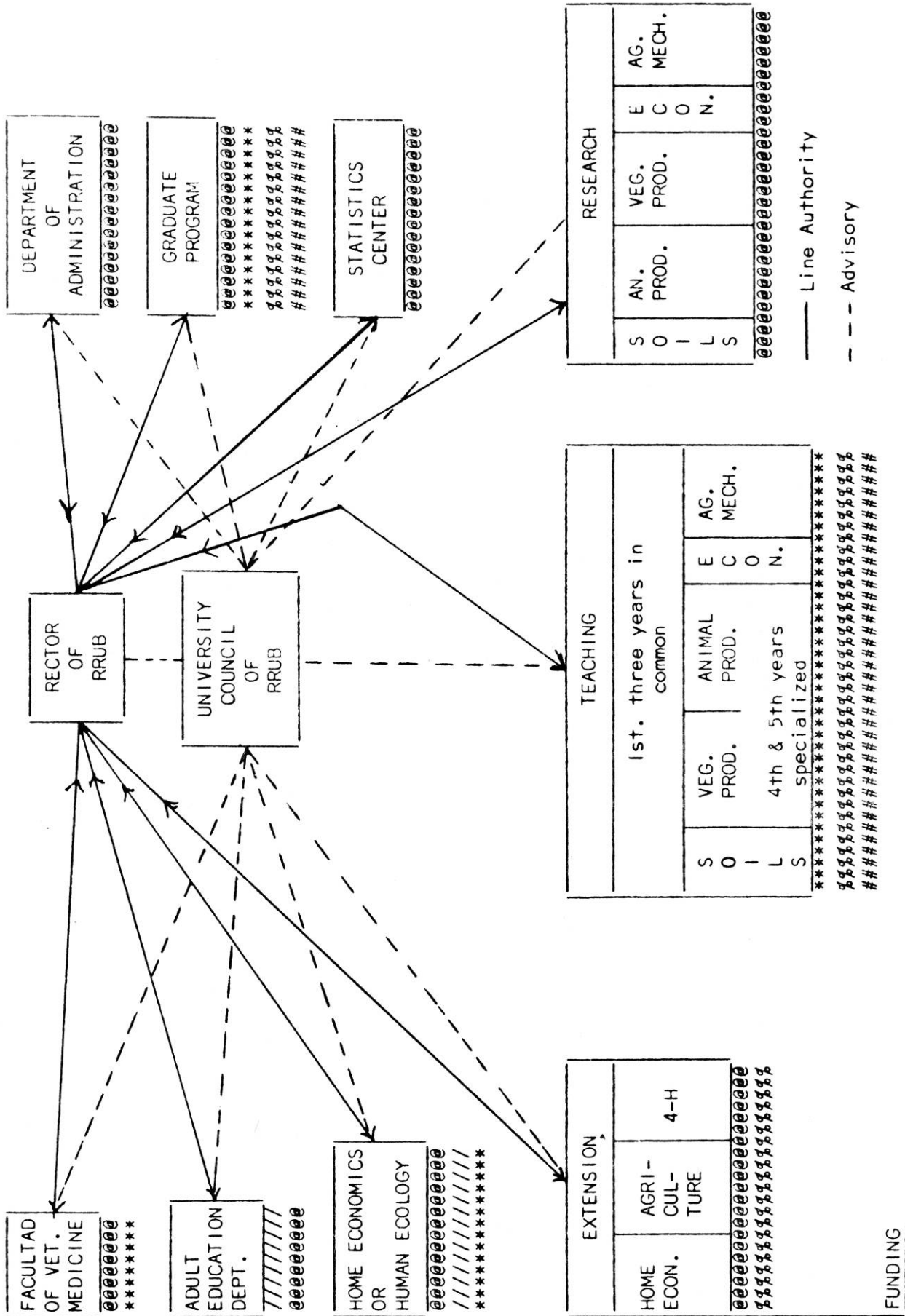
of responsibility and commensurate authority at different levels of the organization. This allows leaders at the upper decision-making levels time to plan and think over major policy issues.

The second principle focuses on the need for a two way channel of communication in the institution. Directives and information go out from the central offices and feedback is needed in terms of what is taking place at the lower echelon levels.

The third principle is the need for a plan or plans for the institution and the units composing that institution. Such a plan requires the statement of objectives and includes a system of evaluation. In brief a progressive institution must include an evolving system of planning and self evaluation.

The following organizational chart of the Rural Regional University of Balcarce will be more effectively implemented if the above principles are kept in mind. It requires the Rector to be as knowledgeable and involved in teaching developments as he is in research and Extension or a greater delegation of authority and responsibility to the Dean of the Facultad. It argues for the organization of an effective university council that represents the various components of the university and who will be intimately involved in the policy and administrative decisions of the university.

This report has avoided making recommendations on the future relationships between RRUB, INTA and the Catholic University of Mar del Plata. Certainly this lusty 10 year old institution would not have survived without the strong persistent support of both parent institutions. However, there comes a time in the development



CONFERENCE FEES //

INTA FUNDING @  
STATE AND COUNTY FUNDING

STUDENT FEES \*\*\*\*\*  
PRIVATE FUNDING #####

FUNDING

of humans and organizations alike when new relationships must be established if maturity is to be reached. Balcarce Agricultural College is now at that point of change if it is to move to its larger role of a regional university. It is the philosophy of the writer of this report that such decisions should involve the ideas and counsel of the many who have worked to create this center of learning. Dr. Wood has faith that the leadership of the three institutions will work out the multitude of arrangements that will allow the Regional Rural University of Balcarce to become an effective leader in the life of Argentina.

#### FUTURE RELATIONSHIPS

The strongest rationale for MSU's involvement in Balcarce was that it could build the beginning educational linkages between our two institutions. It has served that purpose with six faculty members of MSU living and working at the college for an extended period. Some eleven professors went to Argentina and to Balcarce for short-term assignments with additional MSU staff serving as study team participants and on inspection trips.

An Argentine team from Balcarce made an initial visit to the MSU campus as well as three Balcarce staff members on individual tours. Four Balcarce staff members are presently on the MSU campus studying for Ph.D. degrees and two have returned and are already at work at Balcarce College. A Ph.D. candidate from MSU lived in Balcarce for 18 months and carried out his field research there.

The work at Balcarce helped the MSU staff make contact with various other universities in Argentina. It directly involved us

in the ongoing extension research program of INTA. It is quite likely that our staff will be asked for technical assistance to INTA in the fields of communication, extension evaluation, the 4-H program, human ecology or home economics and meat technology.

MSU is now planning to send professors to teach in the beginning master's program in soils at Castelar, near Buenos Aires. We may also be involved in the Agricultural Economics master's program and the Extension master's degree program as well.

We in educational circles have long acknowledged the enrichment that results from involvement with other cultures; the sharing of ideas, the challenge of new concepts, new approaches. To date much of the concern of the universities of the so-called developed countries has been to transfer the technology and know-how of our societies to low income countries. As a result we have not been very effective in building the educational bridges needed for the mutual enrichment of our societies and educational institutions. Specifically we need to be innovative in getting more of the researchers, the administrators, the educators of other countries onto our campuses, in our seminars and classrooms for shared learning experiences. It is encouraging that many universities and governmental officials are now working to make this goal achievable.

#### CHRONOLOGICAL DEVELOPMENTS

There are several ways to present the developments and contributions of a project. Each presentation has its strengths and its handicaps. One may detail the cultural, social, economic

and political characteristics of a nation or community, placing the project in this perspective and then describe the work and its results. Another writer will put minimum effort on describing the physical and social environment but proceed at once to the project, its objectives, its results. The nature of the project will in itself somewhat guide the form of presentation. But projects that deal only with institution building and more specifically with educational institutions in developing countries will be reported and evaluated differently.

This writer has chosen to report on the work at Balcarce in a chronological sequence since he believes it can more accurately reflect the sequence of events and the persons who shaped them in this way. The author considered reporting the developments discipline by discipline since in our stateside universities we identify ourselves thusly. Our long and short term advisors to Balcarce were so identified. However, in the 10 year life of the Facultad at Balcarce, departments were not even begun until the seventh year and departmental chairmen were only partially assuming the academic and administrative responsibilities for the teaching components of their departments by the termination of our contract. To attempt to delineate the work at Balcarce discipline by discipline would run the risk of distortion by forcing the reporting into this mold. The report that follows then is largely a chronological summary of events centered around major developments at the Facultad de Agronomia, Balcarce.

#### THE PRE-CONTRACT SURVEY TEAM

A four man pre-contract survey team from Michigan State

University visited Argentina from September 16 to October 2, 1963. The team was requested by AID to inquire into the feasibility of establishing a land-grant type college of agriculture at Balcarce, Argentina and to assess the possibility that MSU might contract with AID for technical support for this project. The team was composed of Drs. C. Lassiter, M. Perkins, P. Ralston and G. Wood, all of MSU. The report was completed in October 1963. It briefly reviewed the events leading to the request for the survey team, assessed the situation at the time of the study tour and made its recommendations for future courses of action.<sup>1</sup>

The events occurring at Balcarce prior to the arrival of this survey team are covered in the summary section of this report and in more detail in the pre-contract survey team report. The team wrote that the following division of responsibilities were agreed to for the future development of the Balcarce agricultural college (BAC).

1. The Balcarce Experiment Station (BAES) would provide the land on which the necessary buildings for BAC would be constructed and would provide staff to cover approximately 50 percent of the teaching load. It would also provide the administrative staff and personnel to carry on the research and extension functions.

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<sup>1</sup>A Project for the Creation of a Land-Grant Type College of Agriculture at Balcarce, Argentina. Subtitled, A Report by the Pre-Contract Survey Team of Michigan State University to the Agency for International Development. October, 1963. Second Edition 7/9/64.



2. BAC would provide the staff for about 50 percent of the teaching responsibilities and make personnel available for research and extension functions.
3. The Catholic University of Mar del Plata (UCMP), a private university, would provide the necessary university accreditation required by Argentine law for the granting of degrees to BAC graduates.
4. The Sociedad cooperadora de Balcarce, an organization of leading citizens, parents of students, businessmen, cooperative and social organizations would raise the funds needed for the operation of BAC, apart from the resources obtained from student fees.
5. The responsibility for the administration of the integrated program was to be as follows:
  - a) For teaching--the Dean of BAC
  - b) For research and extension--the Director of BAES.

#### TEAM RECOMMENDATIONS

The team was concerned with the divided leadership and recommended the appointment of one person to act as director of BAES and Dean of BAC.

The second recommendation was directed to the Sociedad. The team urged that legal status be achieved as soon as possible and steps taken to organize this institution into an effective fund raising mechanism.

At the time of the teams visit, the BAC student body consisted of 54 students housed in a dormitory in Balcarce and who were transported daily to the Facultad for classes. The

buildings and laboratories used for instructional purposes were designed for research and not for teaching facilities. A building program would be a necessary part of any development plan for the college.

The survey team drafted an integrated building and equipment plan that would economize on teaching staff by using larger lecture halls, and more complete use of laboratories. The buildings were designed to handle a student body of some 715 which was agreed to as the goal in some five years. Annex E of the team report contained the specific recommendations for buildings and equipment tentatively estimated at a U.S. value of \$2.1 million.

The recommendations for the curriculum was a rather drastic break with the Argentine tradition. It was proposed that the number of student contact hours per week be reduced from the range of 31 to 39 hours then in effect to about 15 hours. To compensate for fewer lecture hours, there would be more individual study assignments and a greater responsibility placed on the individual student to further his knowledge.

The report also noted the demand for students with more specialized training to absorb and utilize the increasing flow of technical knowledge in specific fields. A curriculum was proposed in consultation with BAC faculty providing for some specialization in the fourth and fifth years. The committee discouraged any consideration of a graduate program until a fully developed undergraduate program had been achieved and a well-trained faculty with a significant number of Ph.D.'s

was available.

The survey team briefly studied the research output at BAES and suggested the need for in-service as well as out-of-country training for its staff. Also, the field of Agricultural Economics should receive support in terms of more and better trained staff.

The report reviewed the extension effort, estimated the personnel requirements for teaching and stated the need for a development training program for staff of BAC and BAES. The financial needs of the college were budgeted and the survey team's costs were less than half that estimated by BAC due to more efficient use of faculty time through larger classes, fewer lecture hours and a more efficient examination procedure.

It is relevant to explain here that the part time professor tradition in Argentina may be an expensive form of instruction when put on a full time equivalent pay scale. Some part time professors claim they can earn two to three times the normal faculty salary by teaching in various institutions. They also give little institutional loyalty and are generally unavailable for students consultation. They do, however, provide classes in small institutions that cannot afford a full time professor in a given subject. Perhaps the subject need not be given or the small institution should be linked to sister educational institutions, but that is another issue.

Finally, the report recommended that AID participate in the Balcarce project through the college contract and building loan fund if certain problems were resolved. One such problem

dealt with the final disposition of land and buildings of BAC on the BAES station. Another was the bringing together of BAC and BAES under one administrative leader. The third specified the need of a long term BAC budget ascertaining the financial responsibility of the Sociedad, and verifying its fund raising capability.

#### COMMENTS

As a matter of fact the Sociedad never received official status and BAC was in danger of closing in 1967 for lack of operating funds. As pointed out in the summary statement of this report the lack of operating and capital funds has seriously limited the development of the college.

The following annexes to the survey report are listed for the reader who may wish to study the survey document.

- Annex A. Institutional Background and Preliminary Arrangements for the Establishment of a Land-Grant Type Institution at Balcarce.
- Annex B. Letter to AID Buenos Aires transmitting the informal agreement for partial integration of BAC and BAES.
- Annex C. The specific request by BAES and BAC for technical assistance grants and loans from AID.
- Annex D. Organizational and Administrative Framework of the Institutions cooperating in the project.
- Annex E. Buildings and Equipment Requirements for Balcarce Agricultural College. This included dormitory, eating and lounge facility requirements.
- Annex F. A Recommended Curriculum, including specializations

in the 4th and 5th years in plants, animals and  
Agricultural Economics.

Annex G. The present Extension program

Annex H. Estimated personnel requirements for teaching.

Annex I. Memorandum of understanding between INTA, UCMP,  
Sociedad of Balcarce and MSU.

The period from October 1963 to August 1964 was a planning time at Balcarce, at Michigan State University and among AID officials as to the feasibility of the proposed contract. Six Argentine representatives from the Balcarce area visited several parts of the United States including Michigan State University in August and September 1964. The objectives of the visit were to talk to USAID officials in Washington, consult with faculty and administrative personnel at Michigan State University, Iowa State University, and the University of Florida and travel through parts of our agricultural regions to see the nature of the agricultural industry our universities serve.

September 24th, 1964 the Fundacion Universitario del sud Este was officially organized to provide a legal body to solicit funds for and provide other support and encouragement to the development of BAC. The charter papers of this organization were presented to the government of the province of Buenos Aires for its approval. As noted previously official recognition was never gained.

On October 6th, 1964, the University at Mar Del Plata was legally accredited as an independent institution with the right to grant its own degrees, including the granting of degrees at BAC.

#### Technical Assistance Contract Signed

All parties to the anticipated contract and implementing agreement were satisfied with developments and in February 1965 a technical assistance contract was signed by MSU and AID. The cooperative agreement between MSU, INTA, the Facultad de Agronomia and the Catholic University of Mar Del Plata was also approved.

The initial three months of the MSU-AID Argentine project were spent in the selection, briefing, and preparation of a four-man team

from MSU to go to Argentina to develop an economic analysis study of the Balcarce College of Agriculture. The team consisted of Dr. Kirk Lawton, coordinator of the project; Dr. J. A. Hoefler, professor in Animal Husbandry; Dr. W. Adams, professor in Crop Science; and Dr. L. Kyle, professor of Agricultural Economics.

#### MSU Team Objectives

The four-man team set the following objectives for its economic feasibility study of the Balcarce agricultural college.

1. Review the present and newly-proposed curriculum and obtain judgments to support change.
2. Review the BAC-INTA organizational relationship and the staffing problem and plans for recruitment and training for the future.
3. Evaluate the physical facilities present at Balcarce Agricultural Experiment Station and learn of developments for the near future.
4. Work up a description of the community including climate, soils and crops of the area, general agriculture pattern, farm organizations, population, and population growth, secondary school system, etc.
5. Obtain maps of BAES showing roads, topography, utilities, and relate these to the proposed site of new facilities for BAC.
6. Review the proposals for financing both the loan for capital development and the recruitment operation of a faculty geared for 700-800 students.
7. Obtain data relative to estimates for cost of land, architecture, engineering, and construction.

8. Obtain data relative to manpower requirements and availability (labor and technical personnel), local availability of building materials, and types of construction equipment required.
9. Develop preliminary plans for campus-based and field facilities in sufficient detail to allow estimates of quantities of materials and work.
10. Prepare time schedules and space utilization plans for various types of rooms (labs, classrooms, library, dining hall, auditorium, etc.).

The team spent some thirty days in Argentina gathering a considerable body of data about the college of agriculture. The data included information about the local area, its community, human and natural resources and developments relating to possible financing of an AID capital development loan and for annual operating expenditures. Before leaving Argentina the team prepared an appraisal of the present and future situation at Balcarce. The appraisal pointed to reservations held by some INTA and BAC members as to curriculum changes. The team emphasized the need for the "deep involvement of MSU personnel to the extent of 4 to 6 full-time qualified staff, working as a team and over a ten-year period. Without this support and involvement, significant changes in educational philosophy and curriculum will not occur to unite the areas of research, teaching and extension."<sup>1/</sup> This appraisal became a part of quarterly report number 1 from MSU to USAID.

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<sup>1/</sup>Economic Analysis and Feasibility Study of Balcarce Agricultural College. MSU Foreign Agricultural Programs, November 1965, pp. 1-246.



The final team report fulfilling the above objectives was used in support of a loan application for funds to develop physical facilities for the Balcarce College of Agriculture. This loan request was to be presented to AID by the Fundacion Universitario del Sud Este.

#### Finalizing the Feasibility Report

By May 23, the MSU group had returned to the United States with the first phase of the feasibility study complete. During June and July, Dr. Lawton worked on the report summarizing as well as expanding building designs, drawings, and plans for the new physical facilities for Balcarce college. Dr. Lawton also was searching for a qualified chief of party for the Argentine project.

#### MSU Personnel Selection Efforts

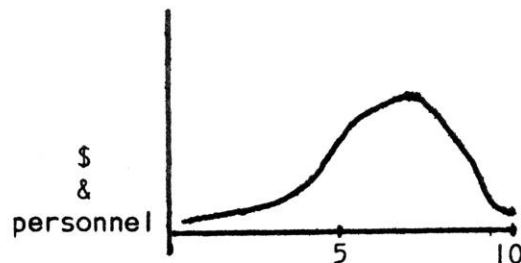
In November Dr. Ruppel, agricultural entomology, was approved as the first long-term adviser to the project. In the meantime, it was agreed by AID Buenos Aires and MSU that Dr. Lawton, the project coordinator, should proceed at once to Balcarce as acting chief of party to get the project moving. Dr. Lawton was also to carry the Feasibility Report with him for discussions with AID Buenos Aires and at Balcarce.

The tempo of the project became more apparent in November with the arrival in Argentina of Dr. Lawton as acting chief of party. He reviewed the Balcarce College Feasibility Study with AID, INTA and university officials. A change in the proposed campus site required the securing of new elevation and soil-type data. It became apparent to Dr. Lawton that the University Foundation of the Southeast might not be able to handle a loan as large as \$2,000,000. A second plan was made with the help of INTA architects reducing the size of projected buildings or combining them for resultant savings.

Dr. Lawton worked extensively in general promotional efforts for the college in the region of Balcarce and in Buenos Aires. He also helped orient Dr. Ruppel to the Balcarce project on the arrival of Dr. Ruppel and family to the Balcarce project January 11, 1966. Just before the departure of Dr. Lawton from Argentina, a high level strategy meeting was held including AID, INTA, UCMP, MSU and Balcarce officials to discuss alternative proposals for financing the college. It was agreed that USAID Buenos Aires, Balcarce Agricultural College and MSU would prepare two alternative loan application proposals for submission to AID Washington in early April.

#### Comments

Perhaps it isn't necessary to point out that it was almost a year after the signing of the contract before the first long-term advisor was ready to begin work. This time lag before advisors and their families can reach the field is apparent from most contract reports and should be taken into consideration in the time sequence planning, budgeting and project termination procedures. For this type of institution building contract, this writer submits the need for a phase-in phase-out activity curve of this nature.



February-April 1966. With the return of Dr. Lawton to the MSU campus Dr. Ruppel assumed duties as MSU liaison officer and general advisor in curriculum development. Dr. Ruppel started at once the

projection of costs of operation of the college for future operations with assumed levels of enrollment. He also reviewed costs of construction, equipment and facilities for the purpose of preparing the loan application the AID mission in Buenos Aires planned to submit to AID Washington. Dr. Ruppel began the preparation of curriculum proposals which would allow the transition from the inflexible course program under which the college operated to one allowing a student interest option. Ruppel worked with Dean Cattaneo in the fund-raising campaign and requested AID Buenos Aires to seek the services of Mr. Battle Smith of St. Louis University. Mr. Smith had had experience as a special consultant in fund raising for higher education in Latin America. Ruppel also helped prepare for the visit to Balcarce of Dr. William Drew, short-term advisor from MSU in the biological science area.

Dr. Drew adviser in Biological Sciences. Dr. William Drew, Chairman of the Department of Botany and Plant Pathology at MSU worked on the Balcarce project from April 1 to May 7, 1966. He took on the formidable task of the following objectives:<sup>1/</sup> (1) a review of the general pattern of courses in the curriculum, (2) an evaluation of course content, (3) an assessment of teaching methods, and (4) the development and introduction of a course in biology.

His 27-page end-of-tour report succinctly fulfills the first three objectives. Dr. Drew presented a Biology course for the consideration of the Balcarce staff to fulfill objective (4). The organization of the course titled Principles of Biology was that borrowed directly from the text by Simpson and Beck, titled Life. It was assumed that this course would be adapted to the needs and curriculum at Balcarce.

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<sup>1/</sup> Report from short-term advisor in Biological Sciences to the Facultad De Agronomia at Balcarce, Argentina. Dr. William Drew, Department of Botany, Michigan State University, April 1-May 7, 1966. MSU/AID contract LA/245.

Dr. Drew's evaluation of the various courses was evidently well received and had considerable impact on course sequence scheduling and content in the following years. Many of his comments on lack of laboratory exercises, shortage of microscopes, absence of display materials, theoretical lectures on topics where rich visual materials existed just outside the classroom door, helped secure the needed equipment and encouraged the faculty and administration to press for laboratories and classrooms.

Dr. Drew made a very insightful observation as he reviewed the general pattern of courses in the curriculum. He noted that for some courses, the necessary preparatory courses were not available or were taught in later years of the curriculum. He also observed that there had not been a careful analysis of class material presented so sometimes basic preparatory materials overlapped but more often were omitted entirely. Sometimes a professor turned over the laboratory part of the course to an assistant with resultant poor integration of lecture and laboratory work in some classes. Dr. Drew was much impressed with the enthusiasm, preparation and professional attitude of some professors at Balcarce. He also commented on the traditional, unimaginative performance of others.

May through July 1966

AID Director Heilman and Rural Development Head Shaefer expressed their concerns to Dr. Ruppel on the lack of development of the Balcarce project. They noted that INTA was dissatisfied with the financing and staffing of the Facultad and that the recently expired agreement between INTA and the Facultad had not been renewed.

The construction of the temporary building for the Facultad by INTA had been halted some six months previously when winds blew off the roof. The work had not been resumed during this period. The loan requests for USAID funds to (1) construct physical facilities for the Facultad at Balcarce or to (2) provide an investment fund in the United States from which interest could be used to finance recurrent operations, were sent to AID Washington.

During this period, the name of Dr. H. Foth was submitted for approval as an advisor in Soil Science. Dr. Rollin Baker, Director of the MSU Museum and member of the Department of Wildlife and Fisheries, visited the Balcarce project. He discussed with the Facultad and INTA staff the feasibility of introducing a course in natural resource conservation. He left an outline of such a course in the hands of Dean Cattaneo and staff. Although the course was not instituted during the time of the project, Dr. Baker's visit was important in securing agreement for the research stay of Mr. Peter Dalby for his study of the small mammals of the pampa region near Balcarce.

Discussions were now underway as to the means of coordinating Teaching, Research and Extension. The Argentines expect such integration to take place when Facultad and INTA station staff are assigned to departments. Such departmentalization had not yet taken place but had been proposed.

The military coup of the Illia government took place in late June and caused some concern as to the continuance of this project. The financial picture for the Facultad appeared gloomy both for current operations and future developments. It was doubtful that there would be a favorable consideration for a USAID loan for development at Balcarce.

The Argentine campaign to raise funds from July 1965 to January 1966 was unsuccessful. It became apparent that the Facultad would have an operating deficit for the latter part of the 1966 and in the 1967 academic year (the academic year typically is March through mid-December). The amounts of the projected deficit were \$10,000 U.S. in 1966 and approximately \$50,000 for 1967, a sizeable amount to this small college. At this bleak point, AID Argentina suggested the possibility of using AID funds to support recurrent operations and to manage a fund-raising campaign.

The supply of teachers, money and facilities may have been bleak at this discouraging time but the demand by students for entrance was encouraging. Without any special information campaigns 150 students applied for admission to the college and of these 74 were admitted to the two-month preparatory course held in January and February. About one-half of these students came from within a 60-mile radius of Balcarce and a majority had had farm experience.

Dr. Ronald H. Nelson, Chairman of the Department of Animal Husbandry was appointed chief of party to the Argentina MSU/AID Balcarce project as of July 1, 1966. He began an 8-week formal Spanish course at MSU and planned to leave for Argentina in mid-September.

#### August 1966-October 1966

The new government of Argentina made no decision in August as to their acceptance of the USAID technical assistance projects including Balcarce. As a result further personnel plans for Balcarce were stopped although Dr. and Mrs. Nelson continued their language training at MSU.

At Balcarce the framework for the temporary facultad building was moved to a new location but nothing more was completed. The first formal Ingeneiro Agronomo examinations were held at Balcarce in early

August. Four graduates of the 1966 fifth year class were examined by a panel including a professor from the University of Buenos Aires and the Minister of Agriculture, the Honorable Lorenzo Raggio. The four candidates passed and were officially accepted as members of the Ingeineiro Agronomy organization of Argentina.

It should be noted here that a continued argument against changing the traditional curriculum of the agricultural colleges was and is that the student might miss some of the training considered essential by the Ingeineiro Agronomo Association. To fail the entrance exam, which is an oral exam with its subjective measurements, would effectively bar the candidate from the prestige, financial and legal benefits the Ingeineiro Agronomo degree now bestows.

The project pace quickened again in September with the reestablishment of working relations between the AID Mission in Argentina and the new Argentina government.

Dr. Nelson and family accompanied by Dr. Lawton arrived in Argentina. AID Director Heilman indicated AID's willingness to increase the MSU technical assistance group, pledge some \$100,000 for the support of a fund-raising campaign which would include \$35,000 to reduce the deficit of anticipated operational costs at Balcarce in 1967.

The arrival of Dr. Nelson served as a catalyst to reassess the Balcarce project not only by AID but with INTA officials, the Minister of Agriculture, Ford Foundation representatives, respected faculty of other universities and Balcarce officials as well. AID officials reiterated their willingness to temporarily underwrite an expanded program at Balcarce, the Minister of Agriculture gave his moral support and Director U. Garcia of INTA, agreed to consider the construction of 'Living Quarters' for the Facultad for the subsequent three or four years.

Cost estimates were immediately obtained for the construction of a "galpon" structure for temporary use by the Facultad for offices and classrooms. The cost was estimated at about \$35,000 for a building to include four classrooms, one laboratory and five offices. Another building need was discussed, that of a language laboratory, but was put aside for the present. Tape recorders, tapes and books were suggested as the substitute for the moment. The needs for a student center were also discussed and Dr. Lawton agreed to contact the Kellogg and Dow Foundations for financial help.

November 1966-January 1967

This period represented the final three months of the two-year contract. New interest had been sparked among the staff of the experiment station and the college by the arrival of Dr. Nelson. Construction work began on the 32 x 12 meter Facultad office and classroom building. But the enthusiasm was dimmed by the gloom surrounding the precarious financial situation of the Facultad. Dr. Ruppel noted a considerable resistance to the proposed curriculum which included some specialization in the fourth and fifth years.<sup>1/</sup>

The experiment station began definite moves toward creating departments that would incorporate teaching, research and extension.

In December a new project agreement and contract extension were drafted and sent to Washington and MSU. The proposal provided for three long-term MSU staff, the equivalent of six short-term advisors plus \$100,000 to support Facultad operations and a fund-raising campaign.

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<sup>1/</sup>Robert F. Ruppel, A Review of Curricula in Higher Education in Agriculture in Argentina. Mimeo. December 9, 1966, 11pp.



The management of expenses incurred for fund raising as well as funds for operation of the Facultad would be handled by the MSU group at Balcarce.

At this time Dr. Ruppel raised for discussion the possibility of creating a four-year curriculum at Balcarce oriented toward agricultural production.<sup>1/</sup> It was visualized that a four-year curriculum would be at the technical level, while the five-year curriculum focused on science with some options for specialization. Many of the students at the Facultad had had little or no agricultural experience. It was proposed to cooperate with a secondary school at Balcarce so that rural youths with poor training in their rural schools could take the necessary mathematics, chemistry, etc. that would permit their successful entry into the Facultad. Other proposals included short courses and a three-year production level curriculum leading to a "perrito agronomo" degree. All such programs would require additional funding so they were set aside.

INTA authorized the organization of the Department of Animal Production at Balcarce to allow the integration of teaching, research and extension. Dr. Nelson was asked by Director Pasquale to be acting head of the department during his stay at Balcarce.

In January 1967 Dean Cattaneo took over the responsibilities for the fund raising drive. He acquired an office in Buenos Aires and turned over the Facultad administrative duties to Ing. Ulises Garcia, Secretary-Treasurer of the Facultad. In the meantime MSU had contracted with Mr. Battle Smith, Latin American program coordinator for St. Louis University, St. Louis, Missouri, to act as a short-term advisor in fund raising and public relations during the period February to April 15, 1967.

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<sup>1/</sup>Ibid.

The Facultad announced its plans to send two student participants for advanced training in September 1967. Two other scholarships were available if suitable candidates could be found.

February 1967-April 1967

The new building continued under construction in February but would not be ready when classes were to start in mid-March. Furnishings for the building were the responsibility of the Facultad and special efforts were being made to supply them. Approximately 45 students were involved in the six-week orientation program during January and February that would allow the students to enter the Facultad in March.

Dr. Merle Esmay of the Agricultural Engineering Department at MSU arrived in Buenos Aires to study the development of the Balcarce project. In this first phase of this research he spent a month interviewing staff, students, INTA and University of Mar Del Plata officials. His object was to seek out the barriers and the catalysts related to the institution-building process at Balcarce.

Institutions apparently follow their creators in terms of peaks of activity and levels of lethargy. March and April 1967 was one such activity peak. Two short-term advisors, Dr. Henry Foth and Mr. Battle Smith arrived in Argentina. An inspection visit was made by Dr. T.K. Cowden and K. Lawton, Dean of Agriculture and campus coordinator, respectively. The new academic year was opened March 13 with traditional ceremonies and dignitaries from Buenos Aires, Mar Del Plata and Balcarce.

A model four-year curriculum had been presented to the Facultad in late December. Director Pasquale appointed an institute committee to study the curriculum problem and make their recommendations in April.

Dr. Foth of the MSU Soil Science Department presented the use of self-study programs in teaching. The idea was well-received by the staff

and they suggested such a course be set up and used as a model in the development of other courses. Senior staff liked the idea because it would free them from many lecture periods and it would also make better use of laboratories and equipment.

Director Pasquale presented his plan for the organization of the experiment station and the Facultad into an institute. Under the plan the director of the experiment station would serve as the Institute Director. Under the Institute Director would be three assistant directors for research, extension, and teaching. Departments would be set up in animal production, crop production, soil science, agricultural economics, and other fields as personnel become available. The Institute Director, his assistants, and heads of departments would form an executive council responsible for policy and action. Each department head would be in charge of teaching, research and extension functions in his specific field.

It became apparent that only one fellowship candidate would be going for graduate training during 1967, Ing. Mendiburo. The other three scholarships remained open.

The fund-raising office in Buenos Aires was put into full operation during the month. A full-time fund raiser, Srta. Maria Mateos was hired to work with Dean Cattaneo. Mr. Smith worked on the technical details of the drive.

The peso was devalued from 250 to the U.S. dollar to M\$N350 per dollar. The devaluation made it possible for the U.S. dollar commitment to pay for visiting as well as the full-time professors at the Facultad. The Facultad was thus able to divert its funds to purchase the furnishings for the new classroom and office building.

Furnishings were purchased and arrived in time for the inauguration of the new building April 22. Some 200 people attended the inauguration and it served as a good publicity medium for the college.

The curriculum continued to receive much attention. The idea of establishing a technical as well as scientific level of education was not accepted by the majority of the committee. It was generally acknowledged that the Ingeniero Agronomo degree should no longer be considered a terminal degree. Additional graduate training would be required for agricultural research and teaching.

Dra. Ana Piretti was added to the full-time Facultad staff to serve as a counterpart to Dr. Taboada when he arrives.

The report of Mr. Battle Smith was presented to the MSU group at Balcarce. His proposed campaign program was presented to interested groups in Buenos Aires and to the reactivated University Foundation for the Southeast in Balcarce.

Short-term Advisor, Dr. Merle L. Esmay<sup>1/</sup>

In brief Dr. Esmay pointed out the importance of agricultural mechanization to reverse the downward trend of Argentine agriculture production. He contends the present Ingeniero Agronomo ends up with a working knowledge of some 30-35 subject matters and is a 'technical generalist.' The 'generalist' cannot cope with the engineering problems of agricultural production. Since present training of the Ingeniero Agronomo provides only two or three courses related to Agricultural Mechanization, a candidate for masters' training at a U.S. university

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<sup>1/</sup>Dr. Merle L. Esmay, Professor of Ag. Engineering, MSU. A Report on Agricultural Engineering Education in Argentina with Recommendations for the Balcarce College of Agriculture. February 15-March 15, 1967.

would need at least a year of preparatory study before starting his degree program. None of the Ingeneiro Agronomo graduates could qualify for graduate work in the agricultural engineering field because of inadequate background courses.

Dr. Esmay made the following recommendations for developing agricultural engineering education specifically at the Balcarce Agricultural College and in Argentina as a whole.

1. The one course now offered in agricultural machinery should be immediately improved placing emphasis on adaptation, utilization and operation of tractors and machinery for increased efficiency and production of agricultural products.

2. Develop and introduce two new courses. One might be called water control including development, planning and functioning of drainage and irrigation systems and erosion control. The second would be rural construction and include planning and constructing storage structures, farmstead materials handling systems, farmstead and field layouts, fences and roads.

3. Develop a core of 5 or 6 courses as an available option for fourth and fifth year Ingeneiro Agronomo students.

4. Argentina should develop a bona fide Agricultural Engineering program at one or two select locations. Balcarce was not recommended for such a program due to the absence of a supporting facultad of engineering.

Dr. Henry Foth--Advisor's Report<sup>1/</sup>

The objectives of Dr. Foth's visit to Argêntina were as follows:

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<sup>1/</sup>Dr. Henry Foth, Soil Science Department, Short-term advisor's Report of Work under MSU/AID Balcarce Project, March 1 to May 1, 1967.

1. Evaluate the present soils course at the Facultad.
2. Review the courses such as chemistry, geology and ecology that serve as a background for soils science.
3. Review of problems in soils for thesis credit in the fifth year.
4. Work with Faculty and INTA staff in the area of teaching methods and audio-visual aids for both lecture room and laboratory.

Dr. Foth felt the soil courses did a good job of preparing students to handle soil problems in the field. A curriculum revision was in progress while he was there so he did not elaborate on his evaluation.

Related to objective two he noted that neither geology nor ecology were taught. He agreed strongly with Dr. Ruppel that ecology was a very important part of the curriculum and should be included.

Dr. Foth reported that he spent over 90 percent of his time with faculty and INTA staff in the area of teaching methods. He gave lectures and demonstrations on the use of audio and audio-visual aids in classroom and laboratory instruction. He reached faculty at the college and high school teachers of Balcarce. He was asked to present his program to faculty at the University of Mar Del Plata and to Extension administrators and program leaders in INTA headquarters at Buenos Aires.

Dr. Foth proposed equipping a large room with individualized study carrels and slide projectors to provide an opportunity for various teachers to make self-instruction units available to students. The lab should contain twenty to thirty individual study carrels equipped with slide projectors and space in the center of the room to do laboratory work and make observations on specimens, etc. This type of self-instruction could handle students on a non-scheduled basis and allow the initiation of laboratory work with a minimum construction of

laboratory space and purchase of equipment. Such a room would be able to handle self-instructional units for several different teachers at one time.

Two of Dr. Foth's recommendations, if followed, might have resulted in the implementation of the above self-instruction approach. He recommended that some of the college teachers at Balcarce be sent to MSU for a quarter term to actively work in teaching some of the large enrollment undergraduate science courses. They would see and learn about television, self-instruction, language laboratory, the instructional media center, etc. The second point dealt with problems of grading and examination procedures.

The chief recommendations of Dr. Foth were never implemented. Much of the equipment he recommended was purchased by project funds. However, Balcarce college personnel were not trained locally, nor sent to the states so the follow-up was predictably low. The examination and grading procedures at the college have been criticized frequently but there has not been sufficient research in Argentina to persuade the teacher to change his traditional approach nor pressure from the institution concerned. Persistent follow-up is needed if major changes such as self-instruction are to be given serious consideration. It is true at U.S. universities. It is more so in cultures with set institutional patterns.

#### The Balcarce Fund-raising Drive

During the February-April period of 1967 there was much activity at the college in terms of the visit of Dr. Merle Esmay, Agricultural Engineering; Dr. Henry Foth of the Soil Science department, as well as the inspection visits of MSU Dean T. K. Cowden and Dr. K. Lawton. There

was also a visit by Mr. Battle Smith from February 28 to April 1 to serve as consultant in the fund-raising drive for Balcarce Agricultural College.

In retrospect it is quite clear that the success or failure of the funding campaign was to be the guidepost for AID and MSU involvement at Balcarce. Mr. Smith in his report<sup>1/</sup> states his belief that "If in February the campaign shows a strong indication of success (key donations from the campaign's recruited leadership and a developed, active campaign organization) the academic and financial support by USAID and MSU will continue. If not, both USAID and MSU will pull out. Thus the Facultad, which does not receive support from the Argentine government and only a token amount from other sources, will be forced to close." As noted earlier, the campaign was not successful in establishing the funding organization nor in the funding commitments sought, yet the project continued. The funding report of Mr. Smith summarized the functions of the development office to be located at Buenos Aires. Buenos Aires was chosen due to the potential leadership as well as the political and economic support located there. One campaign objective was to build an outside advisory board which could eventually form a Board of Trustees for the Facultad. None existed at the time of the campaign.

An exploratory meeting was held March 29 with a group of industrial and agricultural leaders to inform them and get their reactions to the proposed campaign. Generally they were receptive and optimistic that the funding objectives could be reached.<sup>2/</sup>

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<sup>1/</sup>Mr. Battle Smith. Report on Argentina Trip. February 28-April 1, 1967. Mimeo. Pgs. 1 and 2.

<sup>2/</sup>Acta de la primera reunion Celebrada el dia 29 de Marzo de 1967. Mimeo.



Mr. Smith's report included a suggested organizational chart plus much supporting data and project justifications in Appendix 1. Appendix 1 quoted Dean T. K. Cowden as saying that there was only one extension worker per 2,000 agricultural units in Argentina while the most advanced agricultural countries maintain a ratio of one to 500 units. Cowden estimated that Argentina needed 12 to 15,000 professionals in Agriculture and FAO gave its estimate at 20,000 professionals to vitalize Argentine agricultural industry. Though one may question the relevancy of the one to 500 ratio, the fact that in 1967 all of the universities and agriculture colleges were graduating only 150 professionals was significant in relation to projected needs. The statement on page 15 of Appendix 1 that a peso invested in INTA of Balcarce and by inference in the college would yield 20 pesos or a 2000 percent return was most enlightening. Promotion statements know no limits. The supporting data for the statement was not included.

Appendix two of the report laid out the provisional work schedule for the development office and the Consejo Central. Appendix three mapped the general solicitation strategy and appendix four listed the office and campaign material to be printed and used. Appendix five outlined the on-going publicity plan.

As one reads through the general campaign plans and notes the people of political and economic power that were involved in the planning meetings of March 29, April 5 and April 18, it is not easy to decipher why the campaign failed. To say it failed because funding campaigns usually fail in Argentina enlightens no one. To remember that university training had until 1958 been free and the responsibility of the national government may be helpful. To point out further that philanthropic

support of the nature proposed is alien to Argentina and the Latin culture may be more indicative of why the campaign did not prosper.

May-July 1967

Most of the time and energy of the MSU team during the May-June-July period was directed to the Balcarce funding drive. Hundreds of hours were spent by MSU and AID personnel in contacting, gathering data, planning and meeting together to insure the success of this effort. Argentine co-workers joined them to reach not only business and agricultural leaders but the general public as well with their story of the Balcarce College. The mass media of radio, TV and newspapers were used as well as setting up an exhibit at the Palermo show, the national annual agricultural show in Buenos Aires.

In late July Mr. Battle Smith returned to help in the final stages of organizing the fund drive. Much of his two-week visit was used to help plan the activities that would follow the installation of the new commission. On July 20 the commission to assist and advise the Balcarce Facultad was organized under the name Asociacion Pro Ensenanza Rural Universitaria (APERU).

In spite of the high priority given to the promotion effort other work continued at the Facultad. The faculty committee continued to meet and discuss needed changes in the college. The members criticized themselves and their colleagues for not spending enough time and effort in preparation of courses. They noted that some INTA staff still considered teaching as an extra outside responsibility. The committee was dissatisfied with the technical writing ability of the students and decided to study the possibility that a fifth-year thesis might improve

this skill. The committee also felt that there was a greater need for upgrading of instruction rather than curriculum revision at this time.

During this period of evaluation at Balcarce it was brought to the attention of the faculty that the University at Bahia Blanca was operating on a departmental basis, the first in Argentina, and secondly, the Faculty of Agronomy in Buenos Aires was planning to have fields of specialization within its curriculum.

Early in July, Dr. Oscar Taboada and family arrived in Argentina to serve as the MSU adviser in Biological Science. Work had already begun on remodeling one of the old classrooms into a Biological laboratory. Dr. Taboada presented his general outline of the proposed Bio-Science course to the curriculum committee and it was accepted. Dra. Anna Perretti was assigned to be Dr. Taboada's Argentine counterpart in Biological Science.

#### August-October 1967

Much activity still centered around the fund-raising effort but after the exhibit at the Palermo fair in August the MSU effort turned again to matters of teaching, buildings and research. Of course, when the funding association (APERU) came to the Balcarce area to organize support MSU personnel were involved.

It was in August that the first Argentine participant under the contract arrived in the U.S. Mr. Americo Mendiburu proceeded directly to the University of Wisconsin to work on an M.S. degree program in Plant Pathology. The faculty didn't have funds to cover his international travel so it was necessary for INTA to appoint him to their staff on a temporary basis and thus pay his fare.

Dr. Robert Ruppel and family departed from Argentina on September 14, 1967.<sup>1/</sup>

During this period central headquarters of INTA gave formal approval to organizing the Balcarce Experiment Station into departments. Two departments were formed and coordinators named:

Animal Production--Ing. Carlos Saubidet

Plant Production--Ing. Cesar Induni

A second participant under the MSU contract, Mr. Fernandez Tunon arrived in the U.S. September 11. He would work toward an M.S. degree in Soil Science at MSU.

Two additional Argentine students sponsored by USAID arrived at MSU during mid-September. Mr. Carlos Baque came from the INTA organization and Mr. Fernando LaMarca from the University of Buenos Aires.

In October Director Pasquale presented his construction plans for the station. The plans included three new greenhouses and an animal husbandry building which would include classrooms and teaching laboratories. In addition INTA presented through the Argentine government a loan request for 17 million dollars from the World Bank to develop and improve facilities at 12 of its main experiment stations. The request included buildings and equipment for teaching as well as research and extension. Included also was a dormitory for technicians and students.

During October the Council of the University of Mar Del Plata formally approved the integration of teaching, research and extension at Balcarce. INTA had earlier approved this arrangement under which Ing. D. Pasquale, present director of the Balcarce Station, would be responsible for the integrated development of all activities at Balcarce.

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<sup>1/</sup>Dr. Robert Ruppel. End of Tour Report. January 10, 1966-October 1, 1967.

APERU reported no significant amount of money had been collected but that close to 10,000,000 pesos had been pledged. This amount plus student fees was expected to provide a minimum budget in 1968.

November 1967-January 1968

Dean Carlos Cattaneo resigned as Dean of the Facultad de Agronomia at Balcarce and Director of the Fund-raising Campaign as of November 30. In Carlos Cattaneo's place, the rector of the University of Mar Del Plata appointed Ing. Miguel Goni as dean who for the previous nine months had been acting dean. Dean Goni was well-respected as a wheat breeder and a dedicated teacher. His appointment as Dean was well-received.

Budget negotiations on the MSU contract for the period February 1, 1968 to December 31, 1968 were started. The problems of building an institution on the basis of year-to-year budgeting have been well-discussed but the uncertainties of such a process inhibits initiative. In 1967 the funds had not been committed to the project until nearly five months into the budget year. The fund commitment for 1968 was likewise very tardy. Such delays handicapped the purchase of equipment and the commitment by MSU faculty for given assignments.

In January 1968 Mr. John Halpin and Mr. William Miller of the Argentina desk of AID's Latin American Bureau visited East Lansing. They discussed with MSU officials the Balcarce project and its progress. Mr. Halpin also reviewed the progress being made to develop an agricultural graduate school linking IICA, INTA, and the Universities of Buenos Aires and LaPlata. INTA offered the general site of its Castellar Station on the outskirts of Buenos Aires for the graduate center and IICA agreed to provide a director. The school was of interest to the MSU project since Balcarce would be one location where thesis research

would be conducted at the M.S. level. Later it was decided that courses were to be taught at Balcarce as well. A graduate school encouraged studying the relation of the undergraduate curriculum and the graduate training program.

Recruitment of MSU personnel to fill long-term advisor positions continued to be a problem. The positions open in Agricultural Mechanization and Agricultural Economics remain unfilled in spite of the efforts of Drs. Hall and Boger to fill these commitments. Dr. R. L. Cook, Chairman of the Department of Soil Science, decided to send a short-term consultant to look over the total soils need at Balcarce before committing his department to a two-year staff support at Balcarce. Dr. L. S. Robertson, professor and staff member for 25 years, agreed to serve as a short-term advisor to carry out this appraisal in March and April.

The Buenos Aires fund-raising office was closed effective January 31 and the equipment was moved to the Facultad at Balcarce. The emotions centered around this campaign were so strong that it was difficult to make an objective evaluation of the effort during the writer's tour of work beginning a year later. Some Argentines were critical of the timing of the decision to close the campaign. They contended that the work had just reached the pay off fund gathering stage when AID support was withdrawn. Others were satisfied that the campaign failed since it embarrassed them to 'beg for money' and also that outsiders (USAID, MSU, etc.) had to help them do a job. A third group felt that in spite of the failure of the fund-gathering part of the campaign that the publicity and generally high level of moral support among Argentine power groups was worth all the money and effort and spoke well for the future of the Facultad.

February-April 1968

January and February were vacation months at Balcarce--at least for the normal instructional program. There were 130 students enrolled in the admissions or "ingreso" program of the Facultad during these two months. Their admittance to the Facultad or rejection was made in early March.

Professor Merle Esmay was in Argentina during February and March continuing his institution-building research project relating to Balcarce.

Remodeling of offices and laboratories continued at Balcarce to handle the increased INTA research and extension staff and to provide student classroom and laboratory space.

Dr. William Hooker, short-term advisor in plant pathology, visited Balcarce in January and February. His report<sup>1/</sup> reflected on research, teaching and extension efforts in relation to plant pathology. He focused his attention on potato production due to its importance in the Balcarce area. He noted that under present storage practices losses run high. He supported the need for research on virus that affect the potato. He recommended certain changes in improving the certification of seed stock in Argentina but generally was favorably impressed by what he found at the station and practiced by progressive potato farmers.

Dr. Hooker reported that many Argentines with whom he talked were concerned about the limited number of Ingeniero Agronomos available in Argentina. They suggested, and Dr. Hooker supported the idea, that an intermediate level specialists' program with the equivalent of a two-year college training be organized. Dr. Hooker also recommended the consideration

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<sup>1/</sup>W. J. Hooker, Professor of Plant Pathology, MSU. Final Report of the Short-Term Assignment to the MSU/AID Technical Assistance Project at Balcarce, January 15-February 15, 1968.

of a four-year agronomo degree followed by a master's degree rather than the present set five-year course. He argued that if such a four-year program could serve the highly-technified U.S. agriculture it should be able to provide a level of instruction suitable to the Argentine society. He felt the greatest problem in making the change was not personnel or facilities but changing the minds of individuals. This writer is in complete agreement.

Hooker felt the course in plant pathology was well taught but perhaps taught at too high a level. He also felt that a closer integration of research and training could be attained by joint appointment of faculty to research and teaching.

Ing. Pedro Garese left Balcarce for East Lansing in February to study undergraduate teaching and curricula in the College of Agriculture and Natural Resources. Ing. Garese was the first senior INTA staff member to come to the MSU campus for an extended visit on a non-degree seeking basis. The four months he was to spend on the MSU campus would give him valuable insights on the future development possibilities at Balcarce.

Dr. William Drew, Chairman of Botany and Plant Pathology at MSU, who had agreed to serve as chief of party starting in August 1968 stated that he would be unable to serve more than five months at the end of 1968. This short time role was not acceptable to AID Washington and Dr. Lawton was asked to submit another nomination.

Dr. L. S. Robertson of the Soil Science department served as short-term advisor to Balcarce from March 25 through April 30. His report was prepared several months later and included his observations and recommendations on teaching, research and extension programs relating



to soils.<sup>1/</sup> He and his wife lived at the hotel in Balcarce and the first part of his report described their impressions of the people, the community and the interactions of Dr. Robertson and his wife with these people. The contacts brought forth obvious enthusiasm on the part of Dr. Robertson and his wife and an equally warm response from the Argentines they contacted.

The report covered in some detail the teaching, research and extension efforts of the department. It also outlined a project requesting a 30 million dollar loan from the World Bank for Reconstruction and Development to be administered by the soils department. The number of specialists proposed, the research objectives, and supporting facilities were undeniably large considering the limited personnel then in the department.

Robertson was concerned with what he considered a gap in the curriculum previous to the time students took soils courses. Robertson felt the student could not relate soils to himself or the plants and animals upon which his life depended and thus wasn't aware of how he fitted into the world in which he must live.

Robertson also felt no recommendation could be made on the needs of the department until decisions were made on: how the courses were to be taught; where the courses were to be taught and the subject matter of each course. Robertson noted that there were strong feelings for and against the teaching methods recommended by Dr. Foth.

The following list are the recommendations of Dr. Robertson related to the teaching activity. Those interested in his comments on research and extension may refer to his end of tour report.

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<sup>1/</sup>L.S. Robertson. The Short-Term Assignment of L.S. Robertson to the Balcarce, Argentina, S.A. Project. September 16, 1968.

- "1. Expedite the reality of the English-teaching laboratory.
2. Consider the feasibility of injecting into one of the basic courses taken the first year the topic involving interactions between man, soils, plants, and animals. Perhaps it might be more logical to include a whole course in ecology.
3. Use a standard textbook in each of the soils courses.
4. Place more emphasis upon diagnostic methods or in troubleshooting. Soil testing at the present time is not seriously considered in any of the courses.
5. For each of the three courses given, I believe it would be better to have only one instructor in each course. At the present time, several instructors are used."

#### May-July 1968

May-July 1968 represented the second quarter period of the fourth contract year between MSU and the U.S. Agency for International Development. During this period Ing. P. Garese continued his study of undergraduate education at MSU. He also visited the Universities of Wisconsin, Ohio State, California (Davis) and California Polytechnic College at Pomona. In late July Garese returned to Balcarce and began work with Dean Goni and the INTA-Facultad staff on the gradual revision of curriculum and teaching methods at Balcarce. His end of tour report evaluated his experiences at MSU and made his recommendations for curriculum changes at Balcarce.

In June, Dr. Ronald Nelson, chief of party, left Argentina to return to MSU. Dr. Oscar Taboada was designated acting chief of party until a suitable MSU staff member could be assigned to the position.

The end of tour report of Dr. Nelson briefly reviewed the project to the date of his leaving and made specific recommendations for changes at Balcarce and at MSU.<sup>1/</sup> Nelson thought the Feasibility plan developed by the MSU team in April and May 1965 was comprehensive and too ambitious. It was Nelson's opinion that the local people were not sufficiently involved in its preparation and therefore felt no real commitment to carry it out.

In Nelson's view, the Argentine saw the most important aspect of the original plan and the first year's AID contract involving long-term MSU staff as the envisioned building program and the anticipated AID loan to accomplish it. Much of the enthusiasm for the contract failed when this part of the program did not materialize. During the early months of Dr. Nelson's tour there was concern that INTA would not continue its support of the Facultad. In late 1966 and early 1967 INTA decided to go ahead with its support including the construction of a classroom-office building and allowing the Facultad to convert former classrooms to Chemistry and Biology laboratories. Dr. Ruppel, the first long-term advisor from Michigan State, did most of the planning for the new building and the renovation of the former classrooms.

The building of the classroom office building as specific evidence of INTA's commitment to the project brought about a favorable change among the INTA staff in favor of the project according to Nelson. These new facilities plus the formation of departments resulted in a more serious and enthusiastic attitude towards teaching responsibilities.

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<sup>1/</sup>Dr. R.H. Nelson. End of Tour Report of R.H. Nelson, Chief of Party, Balcarce Project, October 1, 1966-July 31, 1968.

Dr. Nelson felt that the 1967 AID-MSU contract which included finances to cover the anticipated Facultad deficit for 1967 and included promotional funds for the Balcarce project was important in the decision by INTA to renew its memorandum of understanding with the Catholic University of Mar Del Plata and give new life to the Facultad. While neither the promotional campaign nor the many discussions on curriculum bore the results hoped for, yet both efforts were important for the later development of the project in Nelson's viewpoint. Nelson also felt a specific accomplishment had been made by the replacement of the traditional Botany course with a comparative Biology course. This was the course being developed by Dr. Taboada.

Following were the changes recommended by Dr. Nelson for Balcarce and at MSU.

At Balcarce:

- "1. Most of the basic science courses (chemistry, physics and mathematics) are taught by part-time visiting professors. As soon as possible these courses should be taught by full-time Facultad or INTA staff.
2. Laboratory instruction in the basic sciences is not of university level or quality. This is probably caused by two things: (1) poor laboratory facilities and (2) the common attitude that laboratory instruction is below the dignity of a professor and therefore is completely turned over to less-qualified people. Michigan State could contribute here with long- or short-term advisors and also by bringing some of the Balcarce staff members here (to MSU) for training and experience.

3. Improved teaching in most courses through better organization and preparation. Most text and reference books in Spanish are needed. Laboratory work in most courses needs to be better planned.
4. Improved scheduling of courses is needed to make better use of laboratories and equipment.
5. Some type of credit system for courses needs to be adopted. The staff is interested in making this change.
6. Something should be done to make it possible to have a higher percentage of farm youth attend the college. Inadequate secondary schooling is hampering this objective.
7. Both the staff and students need more practical experience in agricultural production. This lack of experience handicaps them in their work with farmers.
8. Living facilities for students need to be provided on the campus to help create the right atmosphere and seven days of activity per week."

At Michigan State University:

- "1. Do a better job of filling our personnel commitments agreed upon in the contract.
2. Change our attitude from one of assistance to an undeveloped country to one of mutual assistance between equals.
3. Train the people who come to MSU for the job they are to do when they return. Don't be too inflexible in our graduate programs.
4. Send only qualified and dedicated people on the contract. In many cases the ambition and enthusiasm of youth will accomplish more than experience.

5. Department chairmen who have staff members at or who are expected to furnish staff members to Balcarce should be sent as short-term consultants to Argentina. Only in this manner are they likely to develop adequate interest in the project and be knowledgeable on the type of people needed for it."

#### Arrival of Dr. Bourne

Dr. Clinton Bourne, technical advisor in Soil Science, and his wife arrived in Argentina in mid-June. His assignment was for two years and he came to the project with considerable foreign experience with USAID in El Salvador and with FAO in South Korea.

In the participant training program, Mr. Americo Mendiburu continued his work at the University of Wisconsin. Mr. F. Eduardo Tunón was studying in Soil Science at Michigan State University and a short-term participant, Mr. Rafael Requena, consultant architect to INTA arrived in East Lansing June 8.

The first annual meeting of university rectors, deans, and directors of agricultural colleges in the southern zone of Latin America was held in Buenos Aires July 10-12. Project personnel and AID officials attended this meeting. At the conference it was noted that Argentina now had 18 agricultural colleges of which six were private. Total enrollment of students was estimated to be six thousand which was considerably higher than the enrollment reported by Ford Foundation in 1964. Many favorable comments were made about the Balcarce Facultad and the Experiment Station as a center for teaching, research and extension.

#### August 1968-October 1968

During this period Dr. Oscar Taboada continued to serve as acting chief of party. He also continued his work as Biological Science advisor.

Most of the laboratory exercises for the full year course in Biological Science were completed. Lic. Ana Piretti, Instructor of Biology, had left for France with her husband who would be working on an advanced degree. Dr. Taboada had been concerned that this might happen and had urged Dean Goni to appoint a replacement but this was not done. The result was that Taboada either had to assume complete control of the course including giving the lectures or suspend the course penalizing the students and nullifying his own past efforts in developing the course. Taboada continued the course although displeased that no counterpart was being trained.

Dr. Bourne and his wife finally found a house in Balcarce after an extensive search and lived in the Balcarce community during his tour of duty. Bourne was to concentrate his initial efforts on the improvement of the existing soils courses. He was soon involved in some field demonstrations and in the soil classification short courses at the Facultad. Dr. Bourne, Ing. Berardo and other staff in the soils department agreed to develop written laboratory instructions for soils courses in place of the oral instructions given to date.

Construction continued on a number of buildings at the station including offices and laboratories for the soils department, the library, the animal science building, the potato research laboratories and the glasshouses and attached head house.

Dr. Garland P. Wood, Professor of Agricultural Economics, and Director of the Latin American Studies Center at MSU, was cleared for the chief of party position at Balcarce. Dr. Wood visited Argentina during the period September 10-30 to become reacquainted with personnel of AID Argentina, INTA directors in Buenos Aires, Ford Foundation representatives

and the on-going work at Balcarce. He was joined by Dr. K. Lawton, campus coordinator, and Dr. George Axinn of the MSU International Programs.

Ing. Antonio Garcia, an INTA technician in agricultural engineering at the Castelar Research Center, was appointed on a full-time basis to the Facultad at Balcarce. He was designated as the counterpart to MSU Agricultural Engineering advisor, Dr. Robert Wilkinson, previously with the John Deere Company.

Ing. Villar and Ing. Butzonitch, participants from Balcarce, arrived on the MSU campus in September with their families for enrollment for study towards the Ph.D. degree. Mr. Villar planned to work in veterinary surgery and medicine, Butzonitch in plant pathology. Roberto Bocchetto, Secretary of the Facultad, began his studies towards an M.S. degree in Agricultural Economics at the Castelar Research Station near Buenos Aires.

#### November 1968-January 1969

The planning committee of the Catholic University of Mar Del Plata distributed a questionnaire soliciting answers and opinions over a range of areas including relationships between students and professors, schools, tuition, etc. As an outgrowth of this survey the student body held an informal meeting with the Facultad and INTA officials to discuss student desires and problems. The principal item discussed in the three-hour meeting was the pros and cons of specialization.

Ings. Carlos Lopez Saubidet, who visited MSU and other universities for several weeks, and Ing. Pedro Garese initiated meetings with Dean Goñi and others to study possible changes in the organizational structure of the Facultad.



Work proceeded on the project budget so as to provide funds during the period February 1, 1969 to January 31, 1970.

Mr. Americo Mendiburu expected to receive his Master's degree at Wisconsin in March 1969. Because of his outstanding record, MSU recommended that Mr. Mendiburu be allowed to work towards a Ph.D. degree.

Classes ended November 29 at the Facultad and the month of December was used for the final examinations. Nearly all the examinations remained oral so the full month was needed for the initial exam and scheduling a recuperation exam for those who failed the first exam. The MSU advisors have repeatedly recommended that the final examinations be written rather than oral but tradition still prevails.

The following Ingeniero Agronomos were added to the staff of the Facultad de Agronomia during this period:

Ing. Juan Fernandez, Agricultural Engineering

Ing. Luis Bordenave, Animal Husbandry

Ing. Nestor Darwich, Soils

Ing. Bordenave was to study for an M.S. degree at Castelar, with Fernandez and Darwich taking up their teaching assignments at once at the Facultad.

Drs. Wood and Wilkinson participated in Language training and orientation activities in January and planned to arrive in Argentina in early February.

A milking parlor building has been constructed at the station, except for the floor and equipment. It was proposed that the equipment for the milking parlor be supplied under the project budget.

Dr. Taboada met with the curriculum committee of FAB during November and December. The committee has made three major recommendations:

1. The reduction in the number of courses per semester and fewer contact hours by the student from the present 36 hours per week to about 26 hours.
2. The reduction in the total number of courses required for the degree.
3. Introducing the quarter system for the fourth and fifth year (senior) students.

February - April, 1969

This period began the fifth contract year between MSU and the USAID.

Drs. Garland Wood and Robert Wilkinson arrived at Buenos Aires February 6th and 7th respectively. After a few days of briefing sessions they moved to Balcarce living in the hotel until their furniture arrived. The dock strike in New York City delayed the arrival of household goods and automobiles.

The first order of business for the new Chief of Party, Wood and for Dr. Wilkinson was to get acquainted with developments of the project, get their families settled and begin planning for the two years ahead. Dr. Wood took over the responsibilities that Dr. Taboada had been carrying in terms of the project management. He then asked each of the MSU advisors to prepare reports embodying thoughts on long range plans in their areas of teaching, research and extension.

Dr. Wood met with Director Pasquale, Dean Goñi, and other administrative staff to develop a sense of their priorities in the short and long run. Director Pasquale was anxious to move on the Language Laboratory building and asked an INTA architect to draft a blue print. On the basis of this agreement Wood entered into discussions with AID officials and language laboratory equipment representatives in Buenos Aires. Wood recommended the purchase of the Raytheon equipment to the campus coordinator in late March.

Discussions were also in progress on the proposed agricultural engineering building at Balcarce. Dr. Wilkinson began reading and planning for the Agricultural Mechanization program at Balcarce. He and Tony Garcia drafted a paper outlining the short and long-term objectives of Agricultural Mechanization; areas of concentration, courses to be taught,

personnel needed and buildings and equipment needed. INTA approved the funding of such a building and construction was to begin when plans were finalized.

Wood continued to encourage the INTA and Facultad staff to meet together in interdisciplinary seminars. Such a seminar was proposed in the area of sprinkler irrigation for the Balcarce region. There were between 200 and 250 farmers using sprinkler irrigation on potatoes in the Balcarce area yet the station had surprisingly few answers on the economics of irrigation, production characteristics, effects on soils, water level, legal implications, etc.

Overall the project was bubbling with activity; the language laboratory was at last in the action stage, the agricultural mechanization program and building were in the process of development, the participant program was using all available scholarships and a full team of MSU advisors were at work. Dr. Taboada had finished one full year with the lectures and laboratory exercises of the Biology course and was in the process of revising notes and exercises that needed rewriting. Dr. Bourne had gained excellent rapport with his department and was involved in helping reorganize course subject matter and field experiments. Dean Goñi had been able to gain a nearly balanced budget in the always precarious financial situation of the facultad. The University of Mar del Plata was more positive in the support of their "stepchild" and INTA was very strong in its commitment of the facultad. The undergraduate program at Balcarce was not as innovative as some (both Argentine and MSU) would have liked, but students were being educated. With the admission of 67 new students from the Ingreso enrollment of 120 the Facultad was at a total enrollment of 285. At least part of the masters degree courses in Animal Husbandry was to be taught at

Balcarce. "For the first time" said Director Pasquale, "The project was moving as he and others had seen it might." Dean Goñi was also pleased and the general enthusiasm of INTA and Facultad staff was apparent.

In April official word was received that the project was to be terminated by mid 1970. The AID program was to be terminated in all of Argentina in 1970 and so the Balcarce project would also be terminated according to word from Washington. Budget and congressional amendments to the AID program were presented as reasons for the projected termination of an AID program in Argentina.

Dr. Wood was immediately involved in a series of conferences with Facultad, INTA and AID officials as to additional funds that might be needed and available to speed up the present work and meet the objectives of the program before the termination date. A request was then submitted for an additional \$60,000 to aid the phase out of the project. These funds were to support three additional staff on participant training programs in the U.S., provide additional short-term MSU advisors to Balcarce and purchase equipment needed in Ag. Engineering, Ag. Economics and Soils.

#### May - July 1969

The possibility of the project termination by June 1970 noticeably dampened the spirit of the MSU team and Argentina counterparts. However, after the first weeks of disappointment, the total team, including MSU advisers and Argentine coworkers, were again hard at work. The challenge they generally accepted was to do as much as possible and leave the facultad as strong as possible before MSU personnel had to leave. It was true that some faculty members at Balcarce as well as Argentine officials in Buenos Aires were less enthused for the work at Balcarce

after the news of the termination of the AID program in Argentina reached their attention.

A proposal for multi-university support to the graduate school program at Castelar was forwarded to AID/Washington. Students from other countries would enroll in this graduate program and since it would be regional in nature the termination of the AID program in Argentina would not affect this program. Universities currently involved in technical assistance programs in Argentina, i.e., Michigan State, Penn State and Texas A & M, were contacted as to their possible interest in the project.

During this period a cooperative bookstore project was arraigned for the Facultad by Dr. Wood. The details of this project were given in the summary to this report.

The new library building was completed and provided a study hall as well as a reference room for undergraduate students.

The site of the new language laboratory was staked out and construction was to begin shortly.

Dr. Bourne had been actively involved with the department of soils for almost one year. He observed that laboratory instruction was inadequate due to lack of space and equipment. Many of the exercises had to be demonstrations by the professor rather than individual work. Students worked in groups of four to six so that in reality only the aggressive student effectively participated and grasped the principles being taught.

Bourne continued to work on the examination procedures, with limited success, as well as on general course content with more success. Mr. Tuñón from the Department of Soils was to return to the Balcarce staff in late August.

Dr. Oscar Taboada, adviser in Biological Science, departed from Argentina the end of June to return to MSU.<sup>1</sup> A team of Argentine faculty headed by Dr. Lewis were to teach the Biology course. There would not be a replacement for Dr. Taboada on the MSU team at Balcarce due to the decision to phase out the project.

Dr. Wilkinson and his coworkers were becoming involved in extension and research programs at the station. A shift from the semester to quarter system resulted in no Ag. Mechanization courses taught during the 1969-1970 school years. This was most unfortunate and certainly was partially responsible for lack of development in the Ag. Mechanization work at Balcarce. Both Wilkinson and Garcia traveled to numerous agricultural manufacturing agencies and industries ascertaining the needs of the new field in Argentina and getting the support of those agencies for the future work of their discipline.

Dr. Wood continued his evaluation of the needs in Economics - Ag. Economics at Balcarce. With the help of Ing. Santos, coordinator of the department, and other committee members he reviewed the present economic course offerings. Then the committee discussed what courses should be offered in the future and in what sequence if there was to be a field of concentration or specialization in Economics during the 4th and 5th year. Ing. Santos and Wood then met with each individual department to get their reactions and suggestions to the Economics Department plan and their thoughts on specialization within their own departments. The Economics Department asked that the committee report including the review of the fifth year thesis be brought before the entire faculty for discussion and decision.

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<sup>1</sup>End of Tour Report of O. Taboada. July 1, 1967 - August 31, 1969.

The discussions with the Department of Economics involved the newly organized center for statistics. Since calculators were not available to students taking the statistics course nor for use in the fifth year economics - ag. economics courses, Dr. Wood agreed to recommend the purchase of calculators for use of the students in statistics and economics.

The Department of Economics started a workshop for the training of INTA extension agents in the field of Economics - Ag. Economics. A preliminary examination showed even the most capable of INTA agents very deficient in the understanding of economic principles and analysis procedures.

MSU was informed that the additional \$60,000 funds requested were approved. Miss Ana Garay of the Department of Soils was selected as a recipient of one of the Ph.D. scholarships provided under this additional grant. She planned to enroll at Michigan State University in January 1970.

#### August - October 1969

Auditors from the office of AID, Buenos Aires, spent the period August 25-30 at Balcarce auditing all records from July 1967 to June 30, 1969. They were most helpful in evaluating the record system of the project.

Dr. Wood continued to work on curriculum evaluation and in developing a plan for areas of concentration in animal production, crop production, and economics - ag. economics. The plan was drafted in consultation with department coordinators and numerous professors.

The first shipment of RTAC textbooks arrived and were sold or rented to Facultad students. An executive committee was organized to set prices, recommend purchases and set other policies for the cooperative book store.



Dr. Wilkinson began the writing of course content for the proposed courses of engines, machinery, processing, rural electrification, shop and irrigation. He finalized the tool list to be purchased from the new supplemental appropriation. Wilkinson and his coworkers continued work on the potato storage structure, the corn fodder residue feeding project, and the pesticide applicator for the potato planter.

Dr. Bourne helped in the land capability classification and soil surveys being made of selected ranches. This work supported an investigation of ranch management being made by the Economics department.

Mr. Frank Madaski, short term adviser in extension program and personnel evaluation, arrived in Argentina September 21st.<sup>1</sup> Madaski is of Italian parentage and made an immediate hit in the Balcarce area where the majority of people are of Italian background. He has a unique capacity to communicate and won many friends and the high regard of extension personnel at the local and national level as well. Madaski's visit also presented the opportunity to the M.S.U. team to emphasize extension to the coordinators of the departments and demonstrate specific examples of the interrelations of teaching, research and extension.

The new satellite station for all of Argentina has been constructed near Balcarce. In late September the president of Argentina, the Governor of the province of Buenos Aires and many dignitaries came to the inauguration of the station. The facultad had hoped to gain support, both moral and financial, from the visiting dignitaries at the inauguration. The racing enthusiasts moved aggressively and were the ones who got a pledge

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<sup>1</sup>End of Tour Report. Short term advisor assignment of Frank Madaski. Argentina - September 18 through October 27, 1969.

for funds to help build a race track and facilities at Balcarce. Balcarce is the home of Fangio, five time world record holder, and of course Balcarce's most elite citizen. The support of the facultad ran a poor second when it came into competition with the 'autodromo' racetrack. The Argentines are racing enthusiasts on the race track and on the highway so the priority is of long tradition. The location of the satellite station is a boon to Balcarce as it has brought 40 to 50 technicians and their families to the community. Their skills and potential leadership in the community should be of long run value to the community.

Much of Argentine agriculture is held and managed in great tracks of land. During the last two decades Farm Management agencies have been set up to manage these large estates and medium sized units as well. Little is known about these agencies, how many millions of acres they manage, the nature of their contracts, the efficiency of their management. Argentine agriculture has lost much of its world dominance in agriculture during the last thirty years so Dr. Wood was interested to see if the level of technology on the large managed ranches was less, equal to, or at a higher level than that employed on owner operated units. Some two months after the investigation began the Argentine government announced a series of policies regarding the taxation of land aimed at intensifying its use. The large land holders, ever fearful since the Peron regime that the government might appropriate their lands were unwilling to supply further data to Dr. Wood. The study was discontinued.

Dr. Robert Davis of the Instructional Development Service, M.S.U. came as a short term adviser to Balcarce.<sup>1</sup> As a specialist in the

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<sup>1</sup>Final Report. Robert H. Davis. Visit to Facultad de Agronomia de Balcarce, Argentina (October 20, 1969 - November 22, 1969).

the evaluation of educational programs he was asked by Mr. Stanley Grand, AID Director, to help evaluate educational programs being considered for Argentina. During his stay he was involved in conferences with officials of the Ministry of Education, INTA, University of LaPlata, and The Catholic University of Mar Del Plata. At Balcarce he gave two seminars on the psychology of learning and was involved in many individual conferences. Dr. Davis as a specialist in curriculum, examination procedures and the psychology of learning was a strong stimulus to many of the faculty, an equally strong threat to others including those in senior status.

By the end of October Dr. Wilkinson and Ing. Garcia had completed the plans and budget to automate the potato storage shed. The system was to test the effectiveness of pumping cool outside air through the potato storage area when the outside temperature was lower than the inside temperature. This pumping system will be compared in its effects on quality of potato to leaving the potatoes piled in the field or other means of storage.

#### November 1969 - January 31, 1970

Departmental coordinators and the Balcarce Agricultural College faculty reached general agreement on the implementation of an elective system of courses for the fourth and fifth years of the curriculum. The following year was to be used to develop the new courses including laboratory materials, work books, and other teaching aids. Existing courses would need to be studied and revised to avoid overlap of topics. Discussions were to continue on course requirements, a credit system of course loads, examination procedures, etc. More specifically, in the months ahead, the teaching, research, and extension staff at Balcarce in cooperation with the MSU Advisory

Group were to direct their attention to a series of questions which were summarized as follows:

- "1) During what years should English be taught at the Facultad? How should it be taught? How do you test the levels of English language proficiency? Should a course in improving the technical English reading ability be given the first year at the Facultad?
- 2) What should be the role of the teacher in the learning process? How can the teacher be more effective in communicating ideas?
- 3) How can the Facultad become more scientific in its teaching and examination procedures?
- 4) What is the purpose of the entrance course? If it is to screen applicants why not use an examination series? If the entrance course is needed by all students to meet university standards why cannot credit be given for it?
- 5) Should dormitories and other facilities be constructed at the Station to create a University campus?
- 6) Are some courses now given at the Facultad too regionally oriented?
- 7) How can present examination procedures be improved?
- 8) What are the problems of learning related to the present emphasis on memorization vs. learning of concepts and deductive process?
- 9) What are the possibilities of using the following systems design approach for long range planning of the Facultad and related organizations?
  - a. Describe the existing concepts.
  - b. Define the specific objectives of the institution and consider ways to measure them.
  - c. How can objectives be fulfilled?
  - d. Evaluation of system.
- 10) How can recognition be given for excellence in teaching comparable to recognition given for research? "

The language laboratory was completed by INTA in late October and the MSU team anxiously awaited the arrival of the laboratory equipment ordered in April. The Ag. Engineering building construction moved along well and its projected completion date was for December 31, 1969. The animal science and greenhouses continued under construction, nearly on schedule.

Two electronic calculators arrived at Balcarce for the use of the Economics Department and for course work in Statistics. Some of the tools and equipment to be used in Ag. Engineering also arrived. The condition of the boxes and the loss of some items indicated these small and large pieces of equipment should have been consolidated at MSU and shipped in a large sealed carton.

Dr. Bourne agreed to coordinate a soils course to be given to the candidates for a master's degree program in livestock production. This would be a new course and would require a heavy time commitment during the January-February summer period.

Dr. Wilkinson completed a "Plow Bulletin" that dealt with alignment and hitching. This bulletin is suitable for extension and classroom instruction. He also wrote a document on potato production methods.

Training participant Ana Garay arrived at MSU to begin the studies for a Ph.D. degree in soils.

Mr. Tuñón, a recent graduate from MSU, helped Dr. Bourne itemize the equipment needed for the soils laboratory. The responsibilities of campus coordinator of the MSU/AID/BAC project were transferred from Dr. Kirk Lawton to Dr. I. R. Wyeth in December. Dr. Lawton assumed the position of project director of the MUCIA/AID/Higher Agricultural Education project in Indonesia.

Drs. Ernest Kidder and John Downes arrived in Argentina on January 18 to begin their short-term consultant work. Kidder is a specialist in irrigation and drainage, Downes' speciality is in vegetable crops. The purpose of bringing Dr. Kidder to Argentina was to allow him to observe the level of drainage and irrigation technology applied--especially in the

Balcarce area.<sup>1</sup> After numerous inspection trips he presented seminars on his observations and his recommendations for the improvement of equipment use and suggested regulations for the control of well drilling. He also worked with Dr. Wilkinson on a future course to be given at the facultad on irrigation and drainage.

Mr. John Downes worked with Mr. Dozo of the INTA staff Balcarce in reviewing a course taught at the facultad as well as consulting on the research and extension program in the field of vegetable production.<sup>2</sup> Downes visited the truck gardening areas of Mar Del Plata and Buenos Aires noting the production, disease control and marketing practices. He also visited the wholesale market outlets of Buenos Aires.

#### February - April 1970

The language laboratory building has been completed for several months. The promise by the Raytheon company representative to have had all the equipment installed and operating by the end of December, 1969 was not fulfilled. Finally it was verified by Mr. Rosenblum, the Raytheon representative in Buenos Aires, that the equipment would be shipped March 10. This delay of nearly five months after the original shipping date was frustrating to the MSU advisory group and their Argentine coworkers. Originally the BAC staff had planned to use the language laboratory during the summer vacation of January and February for classes for INTA technicians as well as English instruction during the first term for fourth and fifth year students.

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<sup>1</sup>Report of Short Term Advisor, E. H. Kidder, MSU Mission, Balcarce, Argentina. January 15, 1970 - February 25, 1970.

<sup>2</sup>End of Tour Report by Dr. John D. Downes. Short Term Consultant in Horticulture in Argentina. January 18 to February 21, 1970.

Dr. Wilkinson became ill with hepatitis the first week in February but the Ag. Engineering staff carried on the program for visiting Professor Kidder.

Wood, Kidder and Downes spent the week of February 16-21 in Buenos Aires with USAID, INTA and other officials. Some of the discussions centered on follow-up relations between MSU and Argentine institutions after the termination of the present contract.

The new Agricultural Engineering Building was completed during the month of February. The Engineering staff including Dr. Wilkinson moved into their new facilities and the tools and equipment purchased under the contract were put into use.

The Argentine government instituted a new policy and has now set aside research funds in several fields. Teaching faculty may receive these funds on the basis of acceptable research projects. As soils is one such area Dr. Bourne began helping the soils staff prepare research proposals. The soils department received notice that their soil fertility and management project for Balcarce had been approved by the Council of the United Nations Development project. The project will involve research and extension in soil fertility, improvement, reclamation and conservation. Six experts will be provided over the contracted three years.

In March Wood wrote in his monthly report that in his opinion the Facultad at Balcarce had reached a plateau in their efforts to build on educational institution. "One can only applaud their progress to date, but if their desired land-grant university is to survive as a viable and progressive institution, it must have additional financial resources." Acting on this premise, and with the support of Dean Goñi, Dr. Wood started discussions with INTA staff and faculty members and drew up an initial

funding outline which would serve as a target for discussion. One year later in Michigan Dr. Wood received a letter stating the serious financial condition of Balcarce and other private institutions of learning. Wood has participated in dozens of meetings with faculty, businessmen, administrators and governmental officials. He is convinced that adequate private funds are available to underwrite the Facultad's needs but that present efforts are doomed to failure.

Dr. Ralph Smuckler, Dean of International Programs at MSU, visited the project at Balcarce. His visit gave an opportunity to the MSU team to discuss with many people the status of the project work. INTA officials at all levels were most appreciative of the work of MSU in Argentina. Catholic University officials and organizations not affiliated with the project gave strong testimonies to the work at Balcarce. But INTA, the Catholic University and Facultad personnel felt that MSU's complete withdrawal at the end of 1970 would be a serious blow to the further development of an integrated teaching, research, extension program at Balcarce. Dean Goñi was specific that the best program had a balance of technical help, equipment and scholarships for the graduate training of their personnel.

While the search continued for the future funding of MSU's program at Balcarce, the groundwork was being laid for other forms of involvement of MSU in Argentina. Dr. Wood had been asked by INTA for a short-term specialist in Home Economics to visit Argentina. The objectives were to spend six weeks evaluating the present home economics program in that country; recommend training programs to upgrade the level of work performance of extension home economists and to recommend ways to establish and develop a degree granting program in home economics at some Argentine Facultad.



INTA had also requested a specialist in extension communications from MSU to help them in their long-term communication center development plans to be funded by an International Development Bank Loan. Since MSU could be involved in providing the technical staff funded under this loan the involvement of one of our staff in the planning phase would be strategic. Dr. Georgianne Baker and Dr. Mason Miller were recruited to serve as short-term consultants in Home Economics and Extension communications, respectively.

The RTAC textbook program has been an important factor in getting professors to use textbooks and do more consistent planning for their courses. Students for the most part have been buying the RTAC books although a few are renting them. Dr. Wood observes, "This plan has probably been our most effective means of improving course instruction." Films and other audio visual aids are available under the program and are being used.

May - July 1970

Dr. Clinton Bourne and wife left Argentina in mid-May returning to the U. S. via the Pan American highway. Bourne's contribution to the Department of Soils was much appreciated and the impetus he gave should continue with the new UNDP/FAO contract.<sup>1</sup>

Dr. Wood continued to work with a group of faculty members and cooperators from the city of Balcarce. These cooperators have supported the facultad since it started but wanted to turn over the responsibility to fresh leaders. They have some property which they were willing to turn over to the new organization when it received legal status. Wood learned that after all the promotional effort under the AID contract that the association was not legally recognized and therefore could not own or dispose of property. The property referred to above was in the name of individuals at Balcarce even though it was put at the disposal of the facultad and had served as

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<sup>1</sup>End of Tour Report by Dr. W. Clinton Bourne. Soils Advisor, MSU Group, Balcarce. June 16, 1968 to June 15, 1970.

the dormitory and mess hall in the first years at Balcarce.

Wood drafted a funding proposal which was discussed with the cooperators of Balcarce and faculty.<sup>1</sup> An attempt was made to reach the parents of the students by having the parents come to the faculty and talk about the present and future of the facultad including its financial needs. The response was minimal. The Dean was at a conference out of the country and did not return in time for the meeting. The Director was not present.

A dinner was hosted by one of the long term supporters of the facultad shortly after the above effort. He invited other cooperators of the previous years plus new people with interest and financial resources. Faculty members and the Director were present. One of the senior INTA staff and faculty teachers partly presented the development of the facultad and something of its present needs. The Director objected to asking for financial support. The result was a failure to gain the support of the new participants and the collapse of activities by the previous cooperators.

Dr. Wood also prepared a cost-return study for an 80 student dormitory which he discussed with students and staff. The INTA architect made a preliminary drawing of the dormitory and Wood then discussed with several builders the current building costs. With the cost-return data and the dormitory drawings Wood visited the Banco Hipotecario in Mar Del Plata. The president of the bank said such decisions were made in the Central Bank in Buenos Aires which Wood next visited. The vice-president explained that legal requirements would not allow them to finance construction outside incorporated cities or villages. He recommended the National Bank

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<sup>1</sup>Funding of the Facultad De Agronomía De Balcarce. Dr. Wood 1970.

but said if no help was available there he would see what he could do as he was very interested in the work. Wood reported his explorations to the faculty group, Dean Goñi and AID representatives in Buenos Aires. There would be legal problems of getting title to the land on which the dormitory would be built, who would back the loan, etc. Wood felt it would be impossible to carry out the arrangements before the end of the contract period so left the information with the Dean and Director for further exploration, if any.

The language laboratory equipment arrived in Argentina and cleared through customs during May. Wood held a series of conferences with Director Pasquale, Dean Goñi and other staff members as to the installation and servicing of the language laboratory equipment. He also visited the language laboratories in Mar Del Plata and was assured it was advisable to use local electrical engineers rather than personnel from Buenos Aires. Wood then drafted an agreement with two electrical engineers who work at the government operated satellite station near Balcarce. Since both engineers live in Balcarce it would facilitate the servicing since they would be easily available. Also their installation charge was approximately one-half that quoted by the Raytheon representative.

August - October 1970

Dr. Paul Munsell came to Argentina in early August as the short-term adviser in language instruction. He had previously mailed an extensive number of books, master and blank tapes, cassettes and other soft ware for use in the two weeks language workshop that he taught. The participants in the workshop were teachers in the region who wished to be considered for the position of instructor in languages at the Facultad. Dr. Munsell was not only to make his recommendations for the most promising teachers of the group but also make his recommendations for the integration of

language instruction in the Facultad curriculum. The class was well received, the equipment functioned properly and was obviously of excellent quality. The final report outlined Dr. Munsell's suggestions for the future language instruction program.<sup>1</sup>

Dr. Georgianne Baker, MSU/AID short-term adviser in Home Economics, arrived in Buenos Aires July 20. She was to evaluate the possibilities of establishing a university level School of Home Economics in Argentina. The present school at Bolivar, Argentina, is at the sub-professional level. Dr. Baker was also asked to recommend the kinds of curricula which a home economics degree granting institution should develop and offer. As a follow-up to Baker's visit INTA asked MSU to consider providing 18 woman-months of technical assistance funded under an International Development Bank loan to implement plans formulated by Dr. Baker and her Argentine colleagues. "In a country where the discipline of Home Economics is unknown, her task of educating was formidable. She constructed a sound basis for future work."<sup>2</sup>

In her report she concluded that the future location of Home Economics training should be decided by the Argentine but she recommended that first consideration be given to Rosario-Pergamino and to the Balcarce-Mar Del Plata educational complexes.<sup>3</sup>

In the discussions of project activities we often omit the contributions that other institutions or organizations are making. For example, there is

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<sup>1</sup>End of Tour Report by Dr. Paul Munsell, Short-term consultant on language instruction, August 2 to September 5, 1970.

<sup>2</sup>Monthly Report. Dr. Wood. September 1970.

<sup>3</sup>End of Tour Report by Dr. Georgianne R. Baker, Short term consultant in Home Economics to Argentina, July 19 to September 7, 1970.

a team of scientists from West Germany. They are working on various aspects of potato production including the search for genetic stock in the original area of potato production in the Argentine, Bolivian, Chilean mountain region.

Below are listed a number of the staff at Balcarce who have received becas in recent months under non-MSU/AID sponsorship. Others not mentioned are in training in France, Belgium, England, U. S. and in New Zealand. The total staff in training abroad indicates the priority placed on graduate training.

<u>Name</u>	<u>Dept. at Balcarce</u>	<u>Sponsor</u>	<u>Location of Study</u>
1. Angel Berardo	Dept. of Soils	Rockefeller	Mexico
2. Sergio Barbiero	Dept. of Animal Production	FAO	Australia
3. Godz	Dept. of Soils	AID	U.S.
4. Fujita Heraldo	Dept. of Animal Production	FAO	England
5. Oscar Malamud	Dept. of Vegetable Production	Nebraska	U. Nebraska

The August-October period was a time of intense activity at Balcarce with much of the project work over the past year and a half reaching a climax. The new language laboratory was inaugurated with dedication speeches by U. S. Ambassador Lodge, the new president of INTA, Ernesto Lanusse; Rector Rau of the Catholic University of Mar Del Plata plus other officials and friends.

The new Agricultural Engineering building was officially inaugurated the same day and displayed the lathes, tools and other equipment purchased under the project. Dr. Wilkinson and the Argentine staff had this equipment in place and running only a few days after the equipment arrived. They also had completed the laboratory exercises and all lecture outlines

for the courses on Tractors and Engines and the second course on Farm Machinery.

Drs. Baker and Munsell completed their assignments during this period and the follow-up implementation discussions began.

Mr. Villar completed his master's work at MSU and returned to Balcarce to join the staff of the new veterinary program.

Ing. Induni, Chairman of the Crops Department at Balcarce, returned to Balcarce after visiting MSU, the University of Wisconsin and various potato processing plants in the U.S. during the month of August. He was very enthused with information he gained on his trip.

One of the major problems in Argentina is the lack of planning -- long and short run. It is a need acknowledged by the Argentines themselves and the problem exists at all levels of government and institutions. It is a problem at Balcarce also and so for a number of months Dr. Wood has been putting down ideas on two papers, one dealing with the general Agricultural College in Argentina, the second on the educational institution at Balcarce. Both papers were referred to in the summary to this report. Both papers, The Rural Regional University of Argentina and The Rural Regional University at Balcarce are available in Spanish and English. These papers were distributed to AID and INTA officials as well as faculty and selected friends. The accompanying letter explained that the papers were written to encourage discussion of the role of the rural university in Argentina.

At the request of Mr. Allemano, new Director of the RTAC cooperative program, Argentina, Dr. Wood visited with officials of The Catholic University and the Provincial University, both of Mar Del Plata as to their possible interest in the RTAC program. Both universities discussed the

programs, as to their political implications, since the program is funded by AID money, and concluded the advantages outweighed any foreseen disadvantages. Before the MSU team left Argentina both universities had signed RTAC agreements and were appreciative of MSU's part in the program.

September required a number of long auto trips to Buenos Aires and these trips gave Wood time to reflect on the work underway at Balcarce over the past few years and how it related to the happenings in Argentina in general. In Wood's words, "As I read the newspapers, listen to the radio and talk to people at various stations in life I conclude that Argentina is going through a period of groping for direction; in its political and economic policies, in education, in its social and cultural aspirations. Argentina is troubled with how to politically integrate its people at home. It is disturbed with the recent election results in Chile, the governmental changes in Peru and Bolivia. Economic problems continue to press Argentina, and the lower income groups are demanding that others share the burden of governmental policies."

Wood goes on to say, "It is within this ambiente of national groping and indecision that the Facultad and the INTA organization operate. The national psychosis becomes evident at the local level in the lack of professional commitment to the work to be done. It shows in the lack of institutional pride--the search to join something better rather than making better the institutions they now have. This lack of commitment to community, to institution, to goals is not something wholly new for it is deeply ingrained in the Argentine, according to Argentine writers, but when the national ambiente is dominated by indecision, then the individual's level of dedication declines. It is the professional returning from his training abroad that is an exception to the observations made above. He is

not happy with the low salaries he faces but professionally he is committed. He is working to upgrade his profession, he apparently has a higher institutional loyalty and works hard to change the conditions he wants to see changed. In brief, he is motivated and it is important that we who work with them help keep them motivated and bring other motivated colleagues to work with them."<sup>1</sup>

#### November 1970 - January 1971

The burst of project activity during the August - October period carried over into late November, then quickly subsided.

Dr. Mason Miller, MSU/AID short term consultant in Extension communications, arrived in Argentina in November. His work was to furnish a further link in the expected future relationships between INTA and MSU by serving as a consultant to INTA for the development of extension communication training programs and planning the establishment of three extension communication centers.

Dr. Wyeth, project campus coordinator, also arrived in Argentina in November. He assisted Dr. Wood in a number of administrative details associated with the phasing out of the present MSU/AID contract. He also assisted in setting up the administrative linkages for the proposed INTA-MSU technical assistance contract involving home economics, extension evaluation, extension communications, 4-H and meat technology.

In Ag. Engineering, Dr. Wilkinson and his staff completed the outlines for the six courses proposed under the new expanded curriculum. Teaching aids and demonstration equipment for the new courses were purchased under the project funds. The few lost items of equipment were reordered. Personnel-wise the department was unsettled. Ing. Garcia was asked to assume a

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<sup>1</sup>Garland Wood, September report, 1970.



position in Agricultural Engineering at Castelar and another of the group joined a private business. In early December Dr. Wilkinson and his family left Balcarce to return to the campus at MSU. His end of tour report carries his evaluation of the work at Balcarce in his discipline.<sup>1</sup> Dr. Mason Miller presented his viewpoints and recommendations to AID and INTA staff. His report gives the details of his observations.<sup>2</sup>

Dr. Wood and family left Argentina December 18, stopping in Bolivia, Peru, and Ecuador enroute to the MSU campus. January was unpacking, writing insurance claims, and report writing time. So closes the last quarter of the six year MSU/AID contract for the building of an institution of learning at Balcarce. Wood's end of tour report has been printed separately<sup>3</sup> but most of the report is the summary part of this End of Project Report.

IN RETROSPECT it is quite clear that an important educational linkage has been established between Argentina and MSU. Argentine students, faculty and technicians are on the MSU and neighboring campuses. Faculty from MSU and sister universities are teaching in several colleges of Argentina, aiding in research with private and governmental units. Other faculty are studying the culture, translating their literature, visiting the artists of this far southern neighbor.

An important contribution seems to have been made in agricultural education in Balcarce. Its influence has reached the older, larger

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<sup>1</sup>Robert H. Wilkinson. End of Tour Report. February 1969 - December 1970.

<sup>2</sup>Final Report by Mason E. Miller. Study of Potential INTA Regional Communication Centers, November 1970.

<sup>3</sup>The Balcarce, Argentina project. End of Tour Report. December 1968 - December 1970. Garland P. Wood.

national universities whose facultads are implementing the educational reforms first proposed at Balcarce. The tools of analysis are too inadequate to give a quantitative measurement of the contribution of the project to the Balcarce Region or to Argentina. The qualitative measurement is even more difficult. Yet it is this qualitative change that this writer believes the most critical. Put another way it is relatively easy to provide buildings and laboratories, teaching aids and staff with more training, yet if the mind set of the Argentine educator doesn't change the total effort will have availed little.

Project personnel are confident a new day has already dawned in agricultural education in Argentina. Perhaps the scant five years of time with only one or two MSU professionals available most of that five years was too brief a time with too few professors to implement so drastic a change in the educational structure. But if agricultural education becomes the vital force for change, development and cultural enrichment that Argentine leaders demand, then one may be sure the work at Balcarce contributed a share.

Garland Wood