

The President's World University Series



Texas A&M University's Global Outreach

By Jack L. Gross and Mary Alice Pisani

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Texas A&M University's Global Outreach

Foreword

A university in its truest sense is an institution deeply involved in world affairs. Its researchers, professors, students and staff, by definition, must be concerned with mankind's history, languages, politics, economic theories and practices, science, technology, social mores and customs, arts and music.

Texas A&M University is a land and sea grant institution with a long and historic focus upon the agricultural and engineering sciences. Texas A&M University has been persistently increasing its reach beyond Texas and the nation, particularly since the end of World War II. It is among those institutions in the United States which have accepted an international role in research, teaching, and public service, as the maps contained in this publication document.

The international involvement of TAMU faculty and staff shown here has been largely an evolutionary process rather than the result of deliberate policy decisions. The University's foreign involvement has accelerated in response to the rapidly increasing interdependence among nations of the world. Nowhere is this acceleration more evident than in the growing attendance of foreign students in all of its colleges.

The truth of John Donne's observation that "no man is an island" also applies to universities. Governments and universities are becoming increasingly dependent on each other to solve complex problems. It is time for some of these universities, foreign and domestic, to join hands openly and to formally establish a network of universities which can pool its resources and talents to resolve problems which we all share. No time in history has called more urgently for rational thinking and human cooperation than this age in which we live.

Texas A&M University intends to be a member of that network of world universities dedicated to these high purposes. The maps which follow show how far Texas A&AM University has already come.

Frank E. Vandiver
President

Texas A&M University's Global Outreach

Introduction

When discussing new priorities, the Target 2000 Committee of 260 eminent Texans in its report of May, 1983, to the TAMU System Board of Regents, urged the Board to aim higher, take bigger risks, build programs systematically, and to embrace new realities.

... An organization cannot outgrow a limited self-image. Think bigger. Expand the area of concern. Refuse to be bound by present limitations. Look beyond present clients. Take a national and international perspective. Consider, for example, making the System the world leader in water research and development...¹

Other invocations for greater national and international involvement of Texas A&M University System personnel and institutions are repeated throughout the report. Certainly the Target 2000 Committee was not provincial in its outlook or its recommendations for the development of the University System by the year 2000.

As the "flagship" institution for the Texas A&M University System, Texas A&M University, of necessity, has been involved in international affairs for a considerable period of time. Basically, there are five major reasons for this involvement: geographic, research, educational, economic, and university development. We have termed these reasons "imperatives". TAMU and Texas have benefited in many ways from their developing international relationships and activities.

The Office of International Coordination, with the cooperation of the faculty and staff of the various colleges of the University, undertook to gather information regarding international involvement relating to these imperatives. Its purpose was not necessarily to promote greater involvement so much as to deepen the University community's own understanding of the breadth and nature of its historic and current activity in foreign affairs.

The map series which follows was selected as the best means for presenting such information in its greatest clarity. Cartographic Services under Christopher Mueller-Wille produced these maps which were drafted by Kathy Roemer. Coordination of information gathering and map production was the responsibility of members of the staff of the OIC.

¹Target 2000 Project, *General Report*, The Texas A&M University System, May 1983. George Mitchell, Chairman. P 21.

What emerges from this map series is that a large percentage of TAMU's involvement has occurred in that area of the world bounded by 35° north and 35° south latitudes—the area of the world in which the largest population resides and whose soils and climates are most compatible with those of Texas. The largest numbers of foreign students attending TAMU come from countries in this area. Our agricultural and other scientists have been most active in this zone.

Furthermore, TAMU's involvement has occurred in all major disciplines, though more complete documentation of some disciplines is needed. Although incomplete, the information presented here makes the point that TAMU's faculty and staff have experience and increasing interests in international developments in Asia, Africa, Latin America and in the oceans and islands in between.

An acceleration has occurred in the enrollment of students for study and research from many of the countries within the area 35° north and south of the equator. The international research and consulting outreach of TAMU's faculty has increased around the world, as has the development of linkages with other institutions. The collection of data and library resources on international subjects has become vitally important to the internal development of the University itself.

Texas A&M University, of course, is not unique in its global outreach, but a better awareness and understanding of this phenomenon by its constituencies is required if it is to continue in its development as a major university with growing international involvement.

College Station Texas
September, 1983

Jack L. Cross
Mary Alice Pisani

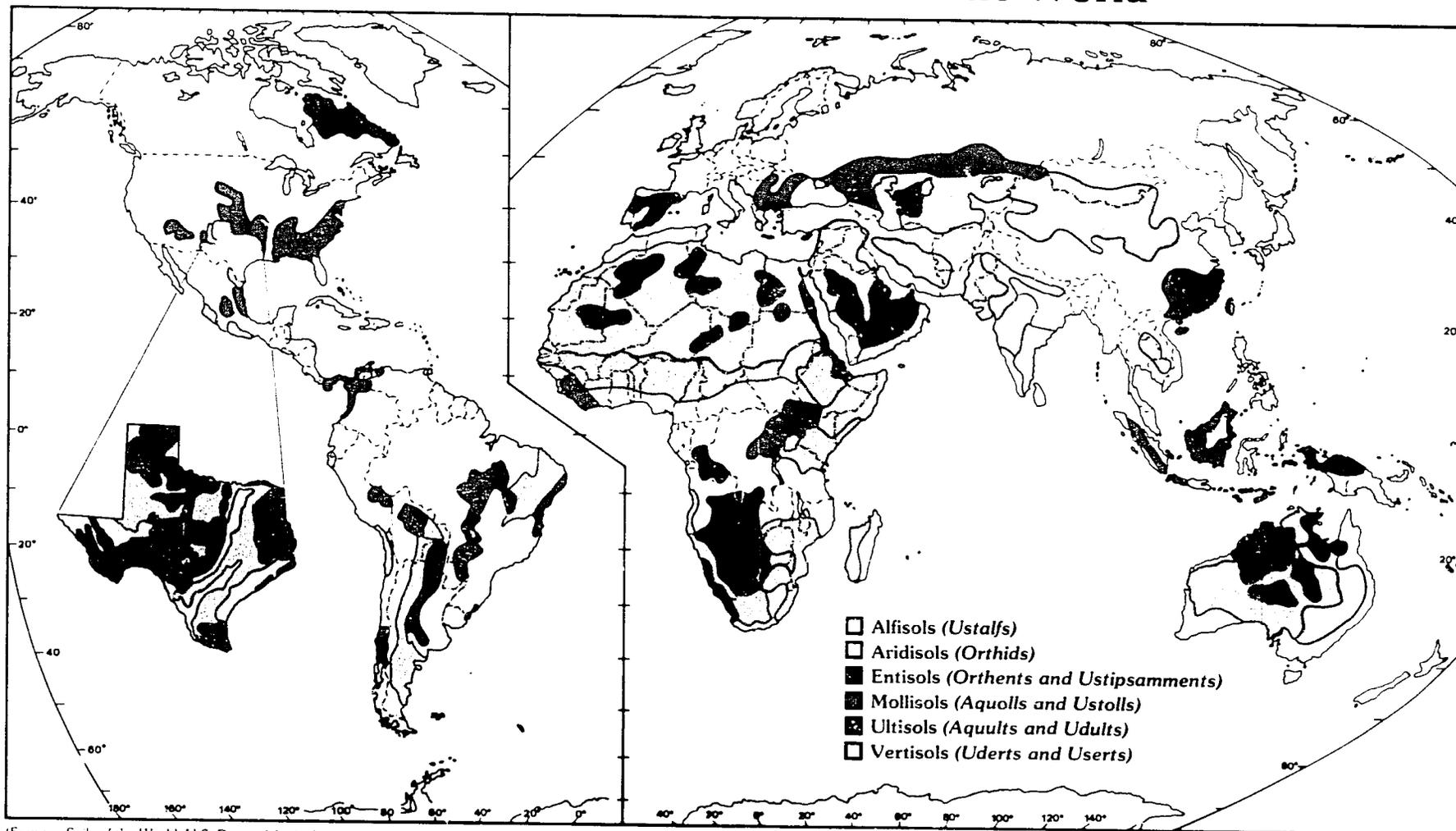
Geographic Imperative

Geographic Imperative

Texas shares common soils, vegetation, and climate with many parts of the world, particularly with many developing countries which lie 35° north and south of the equator. The geographic imperative dictates that Texas A&M share its successful agricultural and other development methods with countries having common geographic features or geographic proximity to Texas.

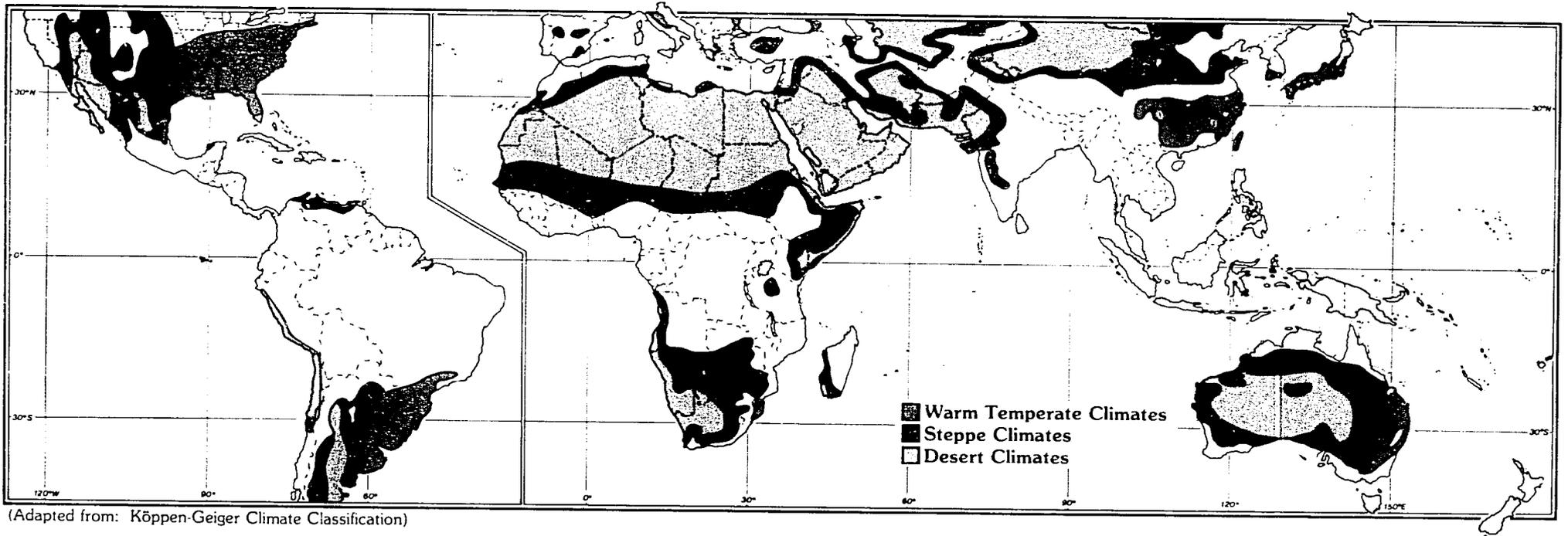
For decades Texas researchers have been developing plant varieties and animal breeds through improved production practices adapted to the soils and climate that Texas shares with large areas of the developing world. Creating linkages between researchers in Texas and those in developing nations will facilitate sharing this valuable experience. Poorer nations, with few resources to invest in research, will benefit from Texas' experience, and Texas researchers will gain new perspectives by increasing their awareness of environmental and human conditions around the world.

Common Soils Of Texas And The World



(Source: Soils of the World, U.S. Dept. of Agriculture, 1972 and Distribution of Principal Kinds of Soils, Dept. of Interior, Soil Conservation Service, 1967.)

Common Climate Zones in Texas and the World



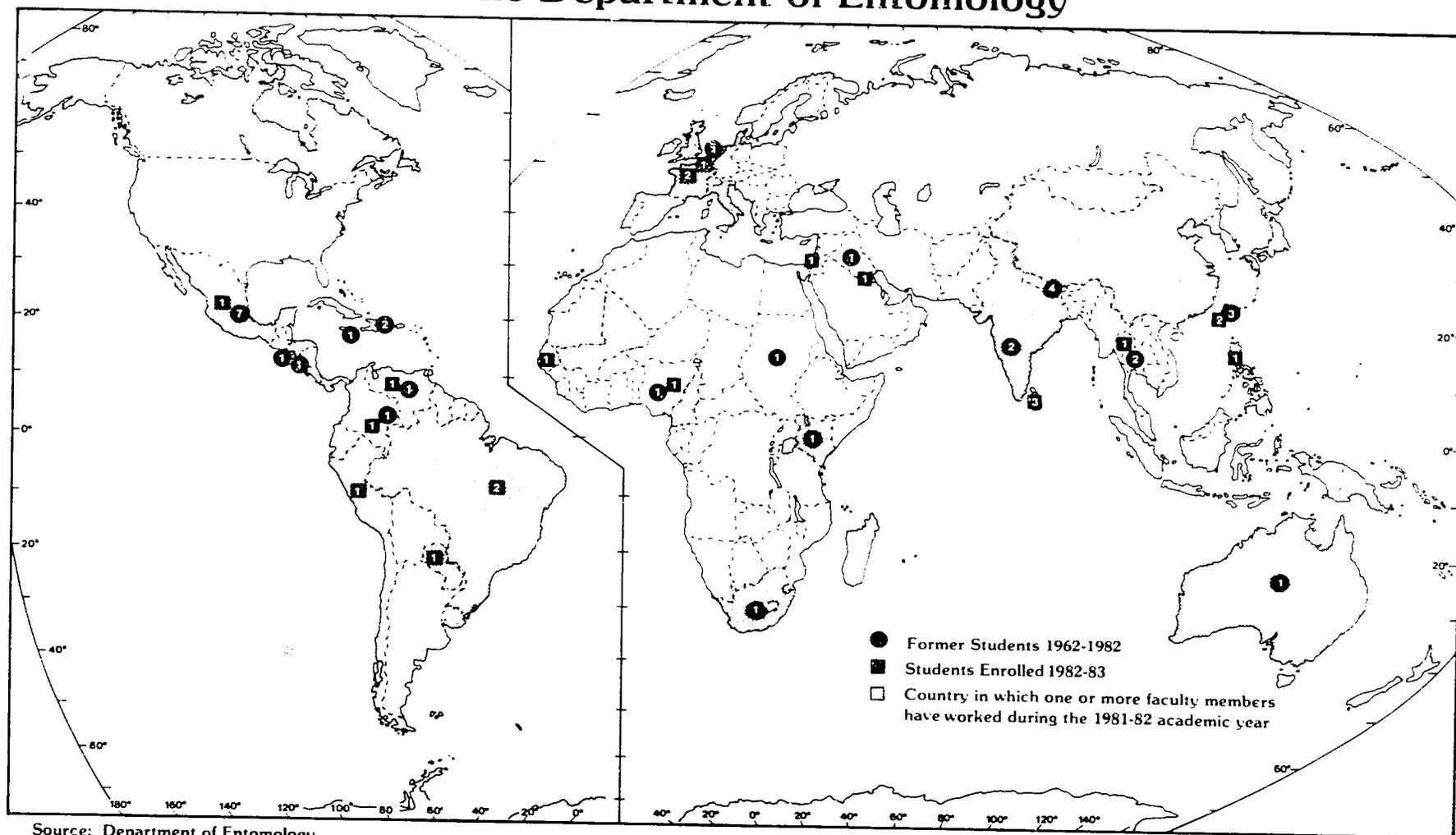
Research Imperative

Research Imperative

International sources of research materials such as germ plasm; cooperation with scientists; and consultation with foreign governments and private groups provide benefits such as improved plant varieties and animal breeds, enhanced research opportunities, and the ability to contribute to the peaceful solution of world problems.

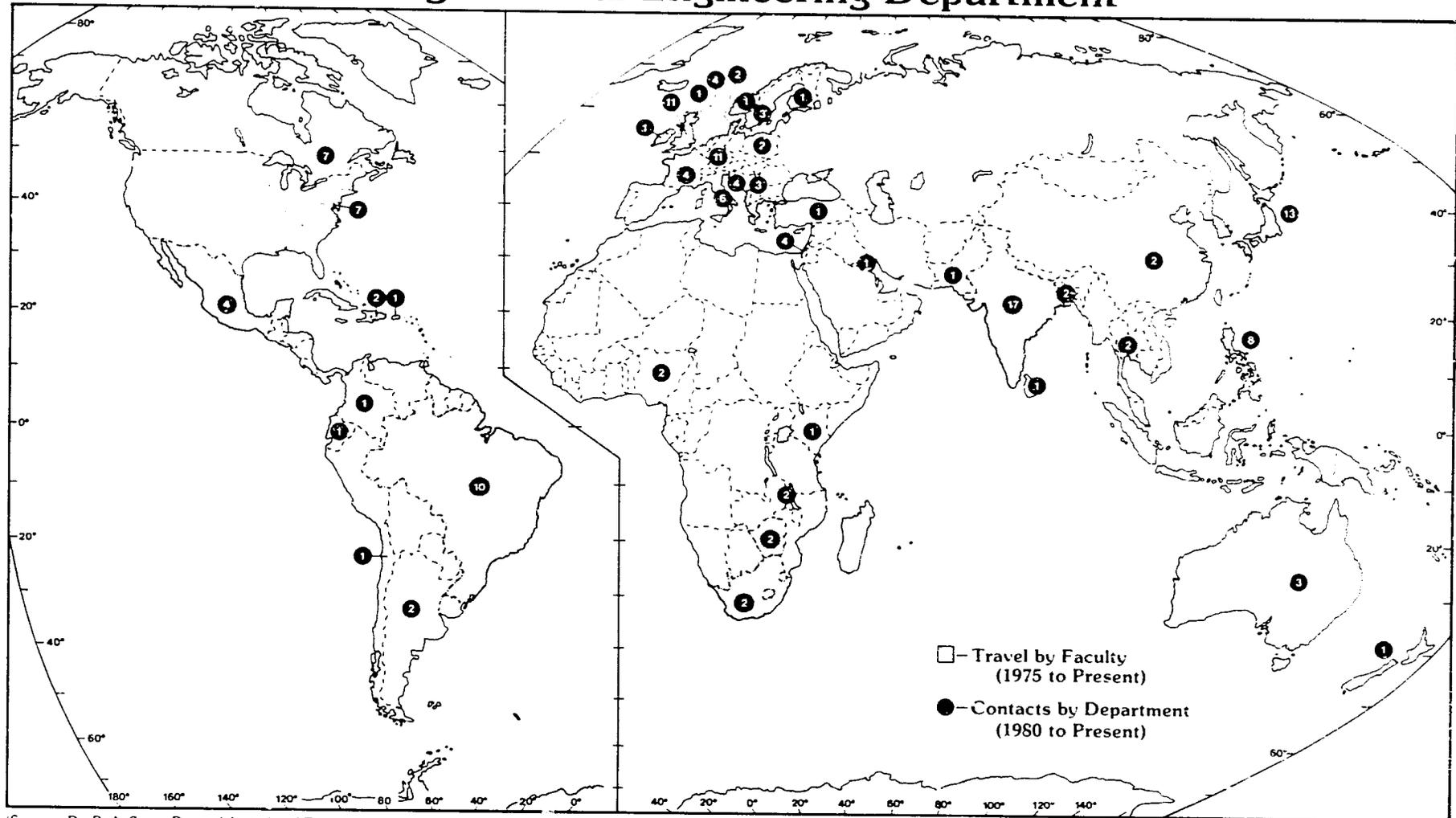
Researchers in many disciplines at Texas A&M University work cooperatively with their international counterparts. In some fields, such as plant and animal breeding and entomology, collection of research materials must often be done internationally. The quality of research in many fields is enhanced by the international exchange of ideas, techniques, and materials.

International Research and Students of the Department of Entomology



Source: Department of Entomology

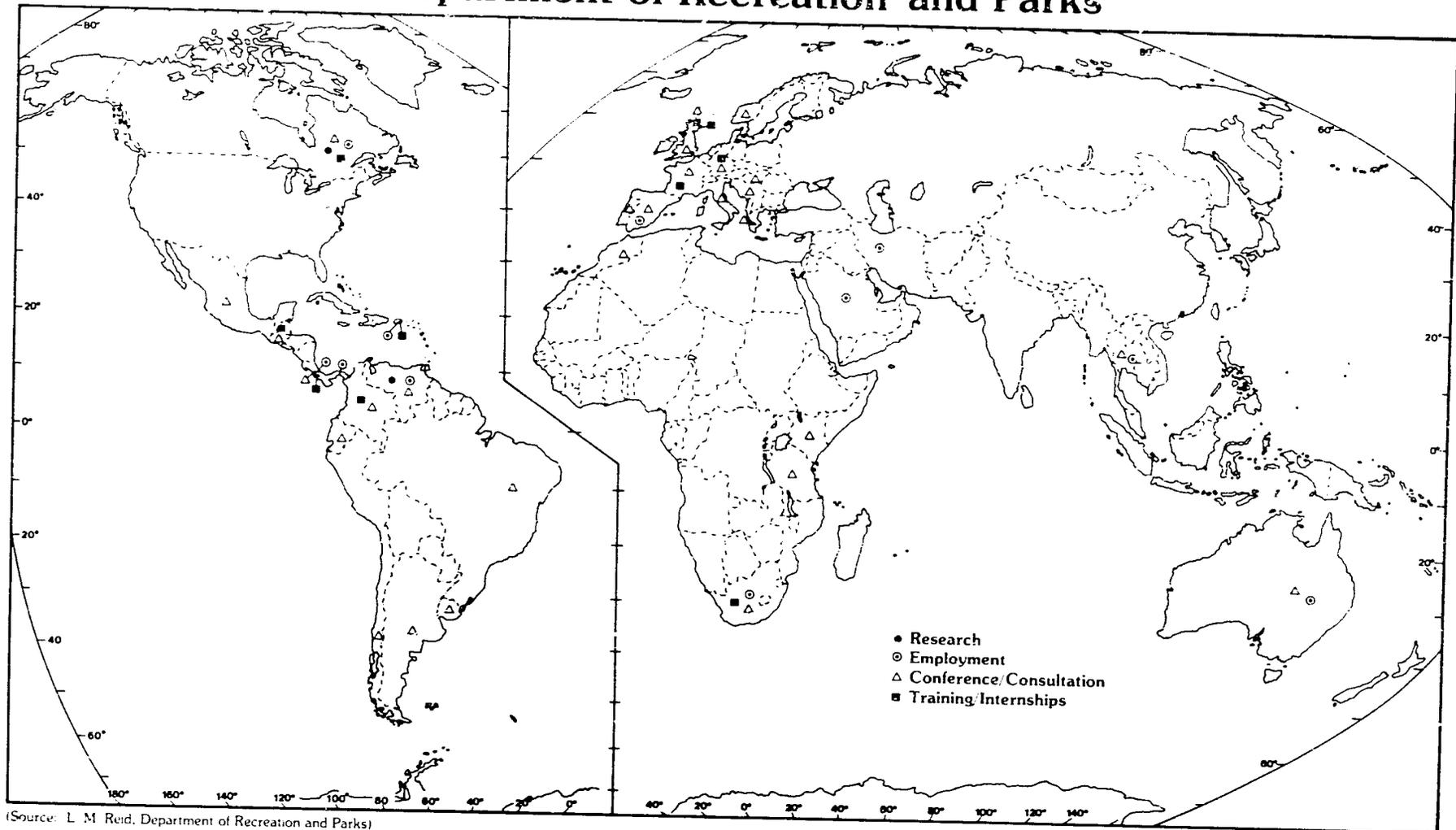
International Contacts And Travel Agricultural Engineering Department



(Source: Dr. B. A. Stout, Dept. of Agricultural Engineering)

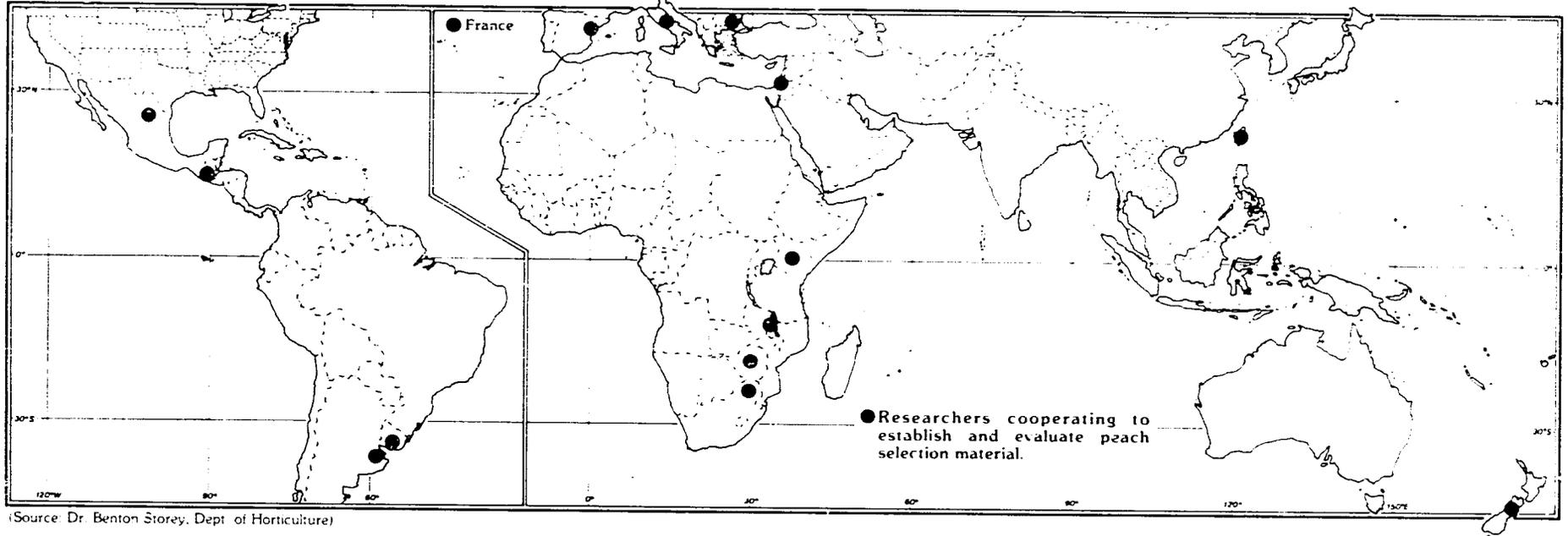
International Activities of Faculty and Students

Department of Recreation and Parks

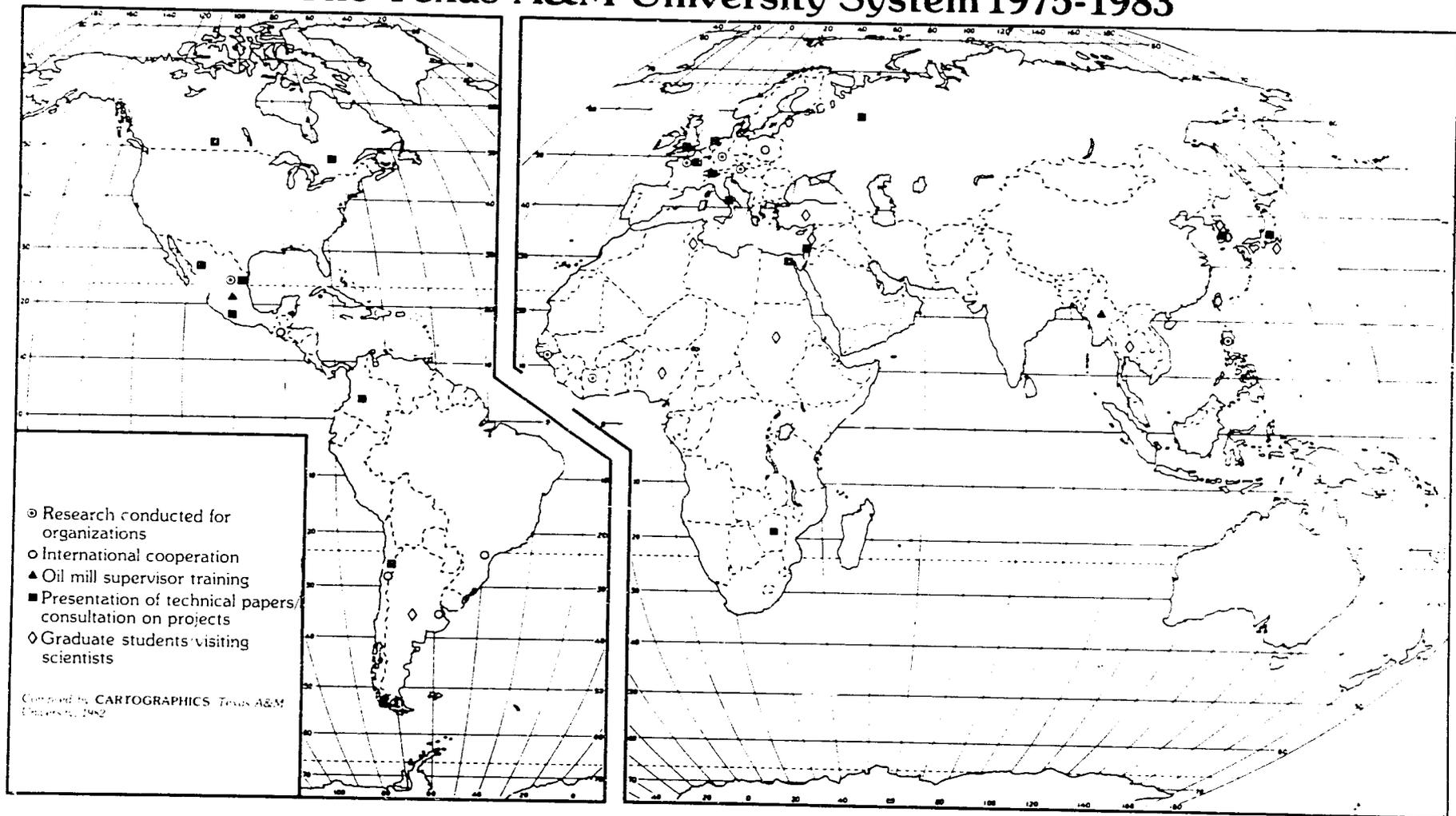


(Source: L. M. Reid, Department of Recreation and Parks)

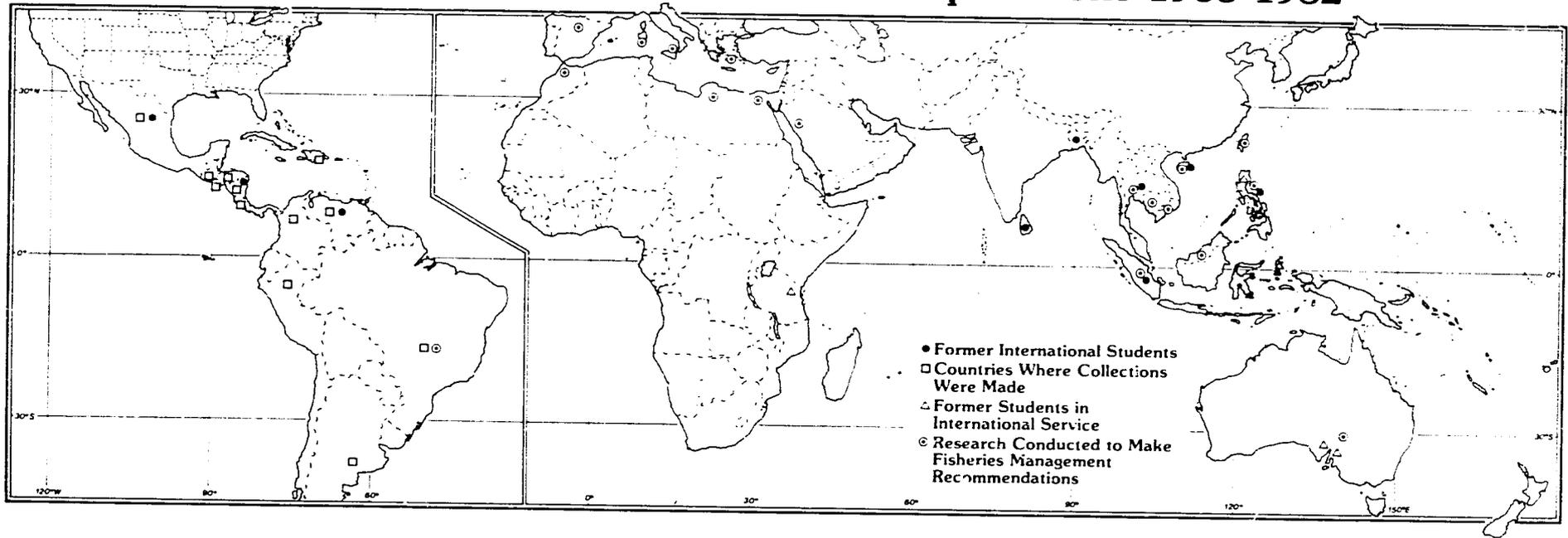
Peach Breeder Cooperators Texas Agriculture Experiment Station 1971-1983



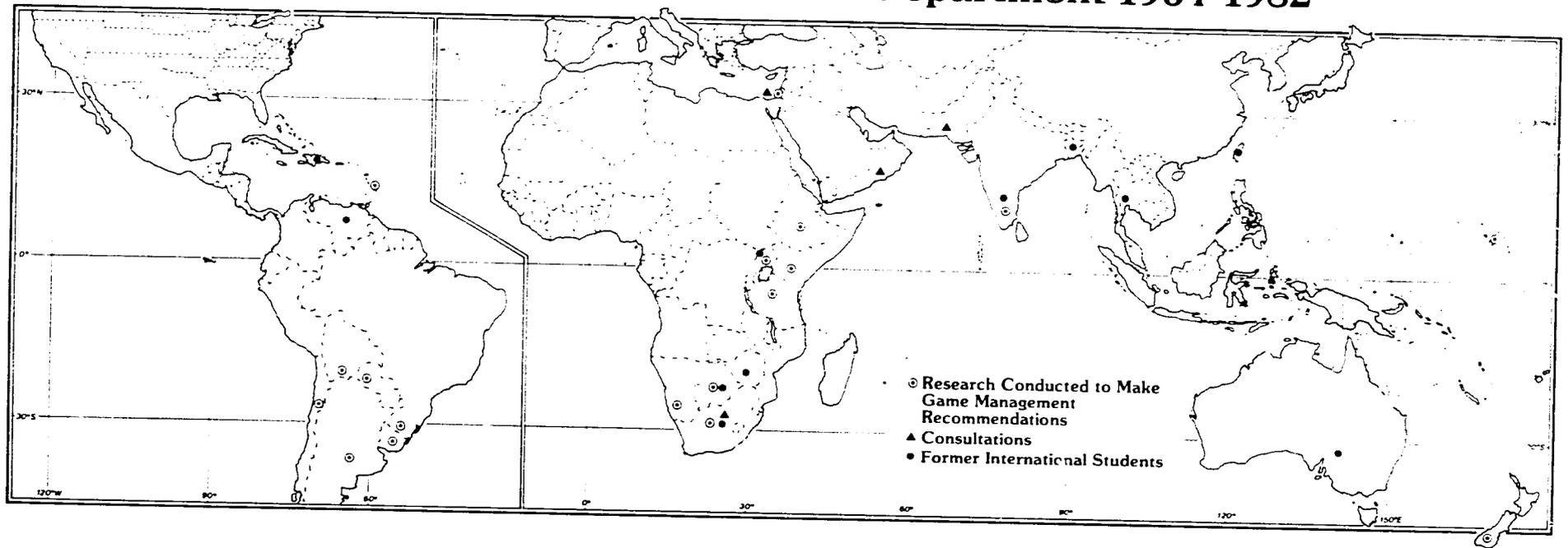
International Activities of the Food Protein Research and Development Center, The Texas A&M University System 1975-1983



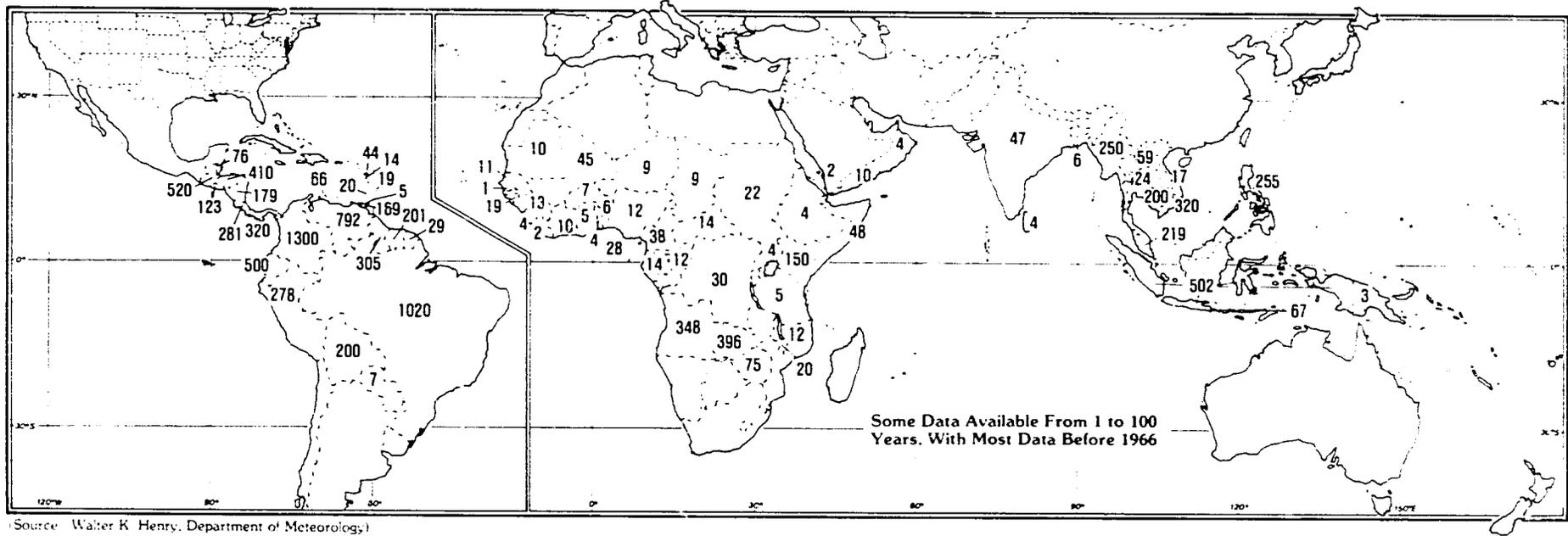
International Students and Research in Fisheries and Herpetology Wildlife and Fisheries Sciences Department 1968-1982



International Students and Research in Terrestrial Wildlife Wildlife and Fisheries Sciences Department 1964-1982

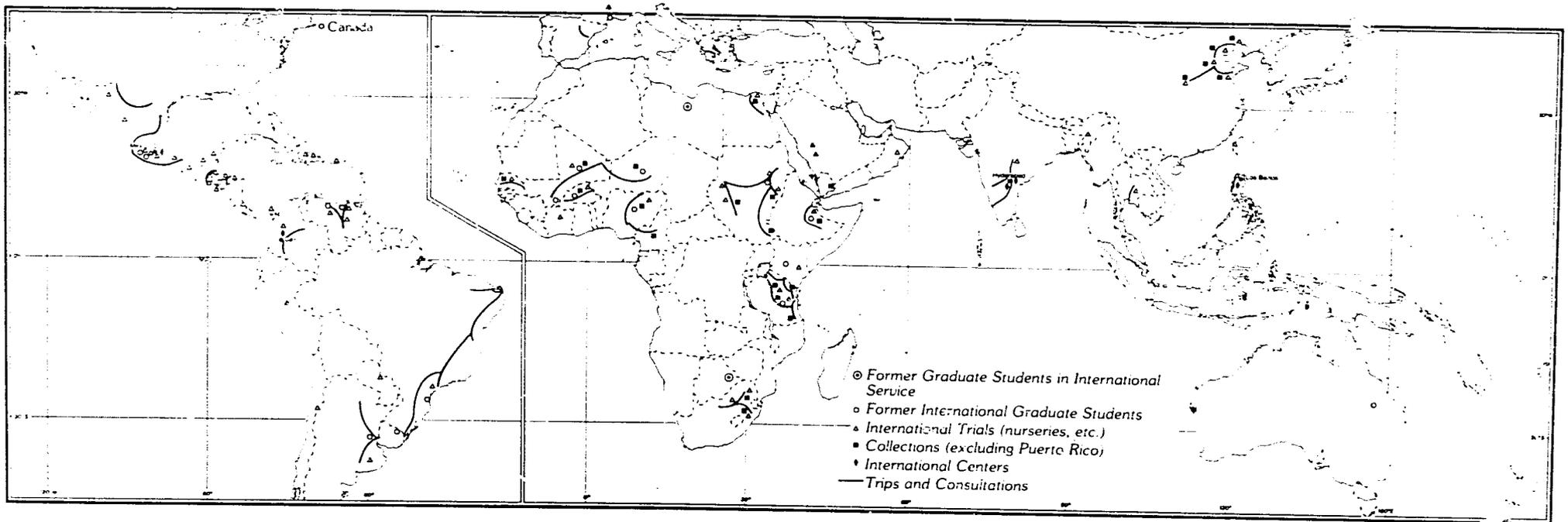


Number of Rainfall Stations in Tropical Countries from Which Data Have Been Collected by the Department of Meteorology

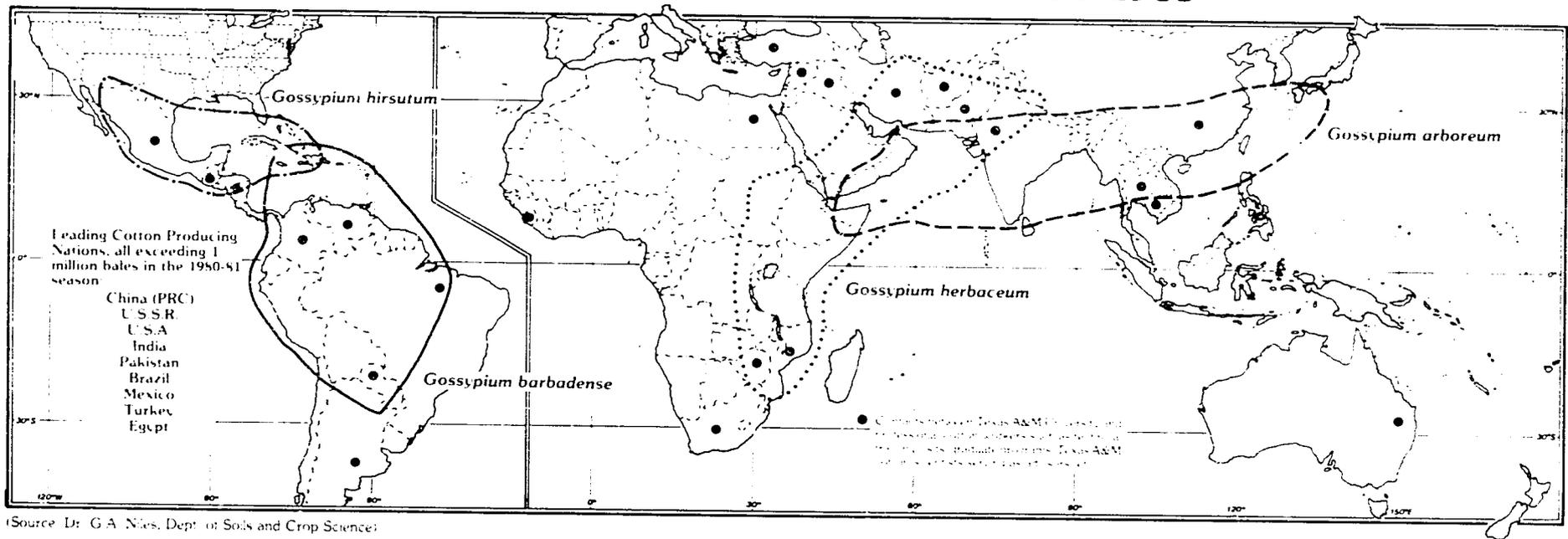


Source: Walter K. Henry, Department of Meteorology

Sorghum Improvement Texas A&M University

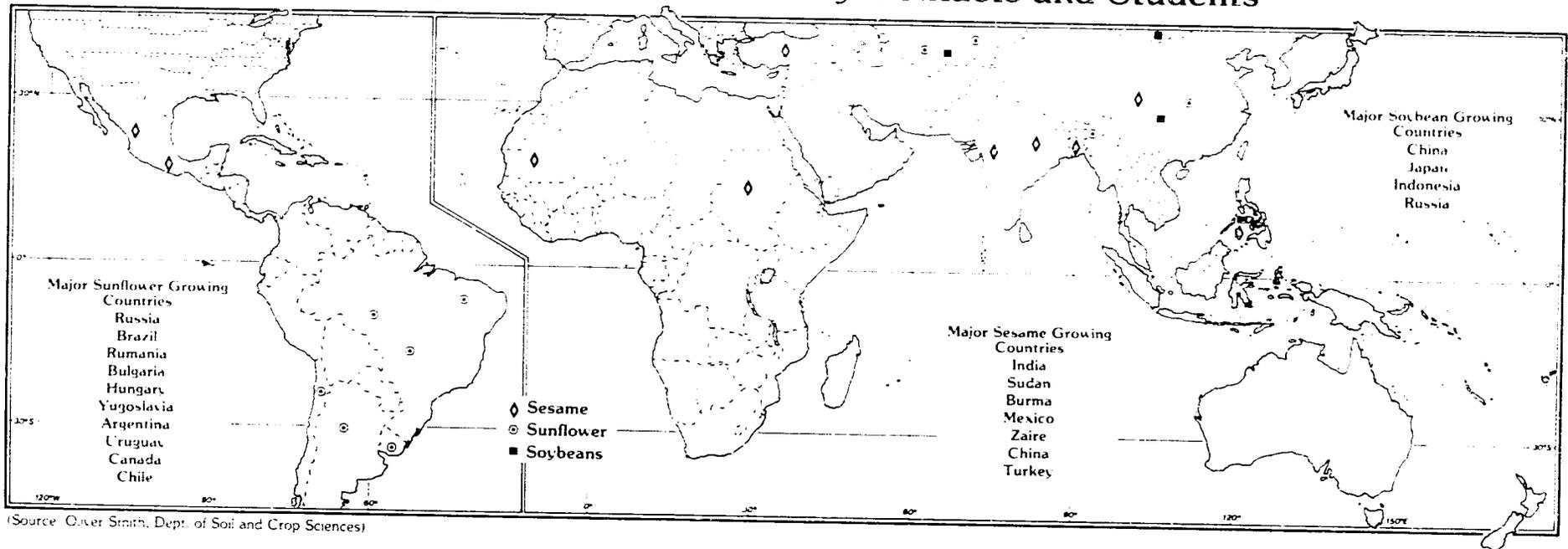


Derivation of Cotton Germ Plasm and Texas A&M University International Contacts with Cotton Scientists 1970-1983

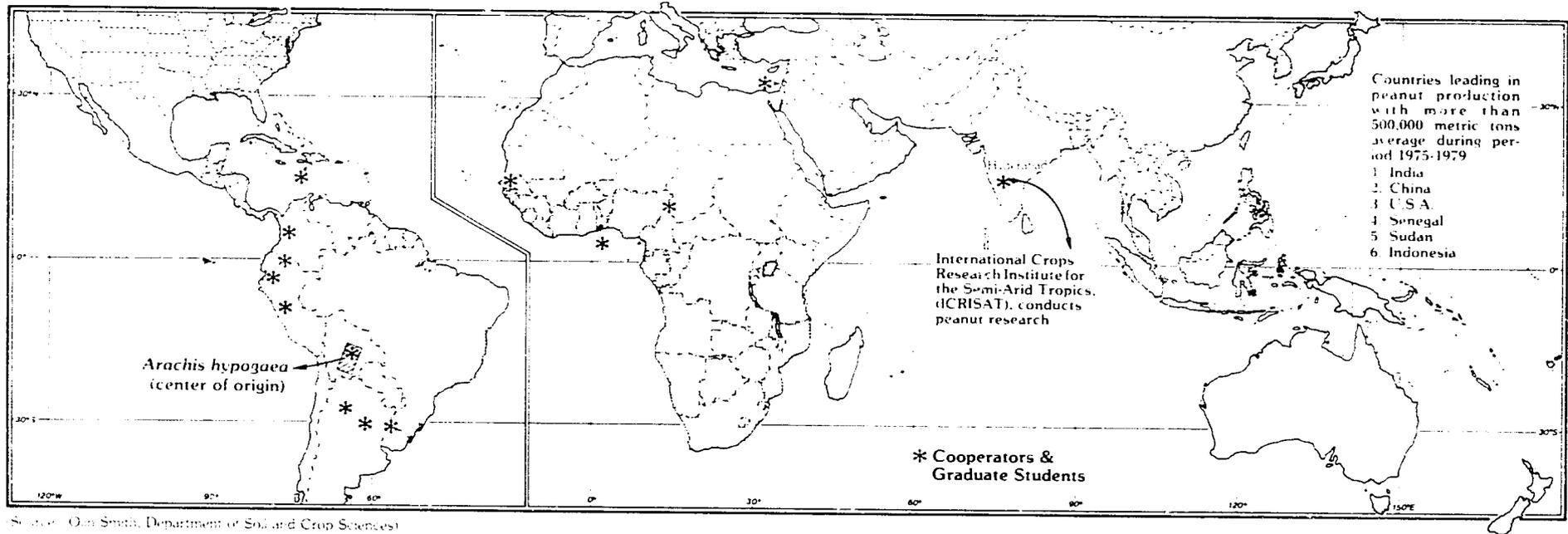


(Source: Dr. G. A. Niles, Dept. of Soils and Crop Science)

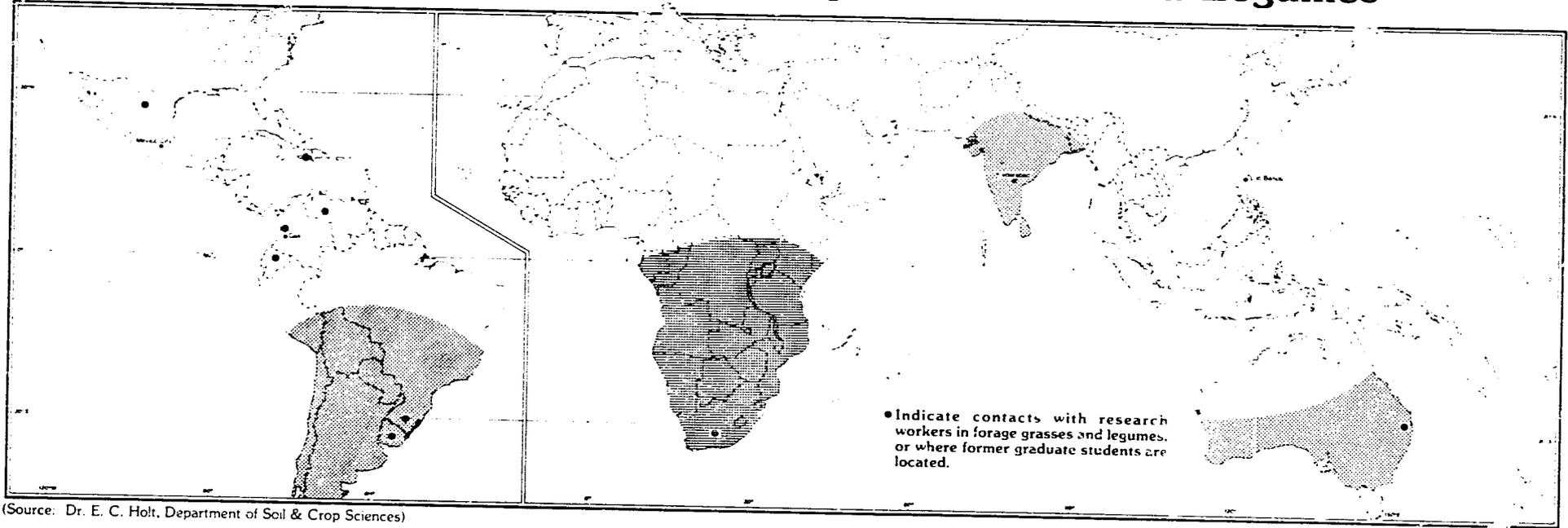
Sources of Germ Plasm and Production of Oil Seed Crops Including Texas A&M University Contacts and Students



Derivation of Peanut Germ Plasm, Peanut Scientist Cooperators and Graduate Students

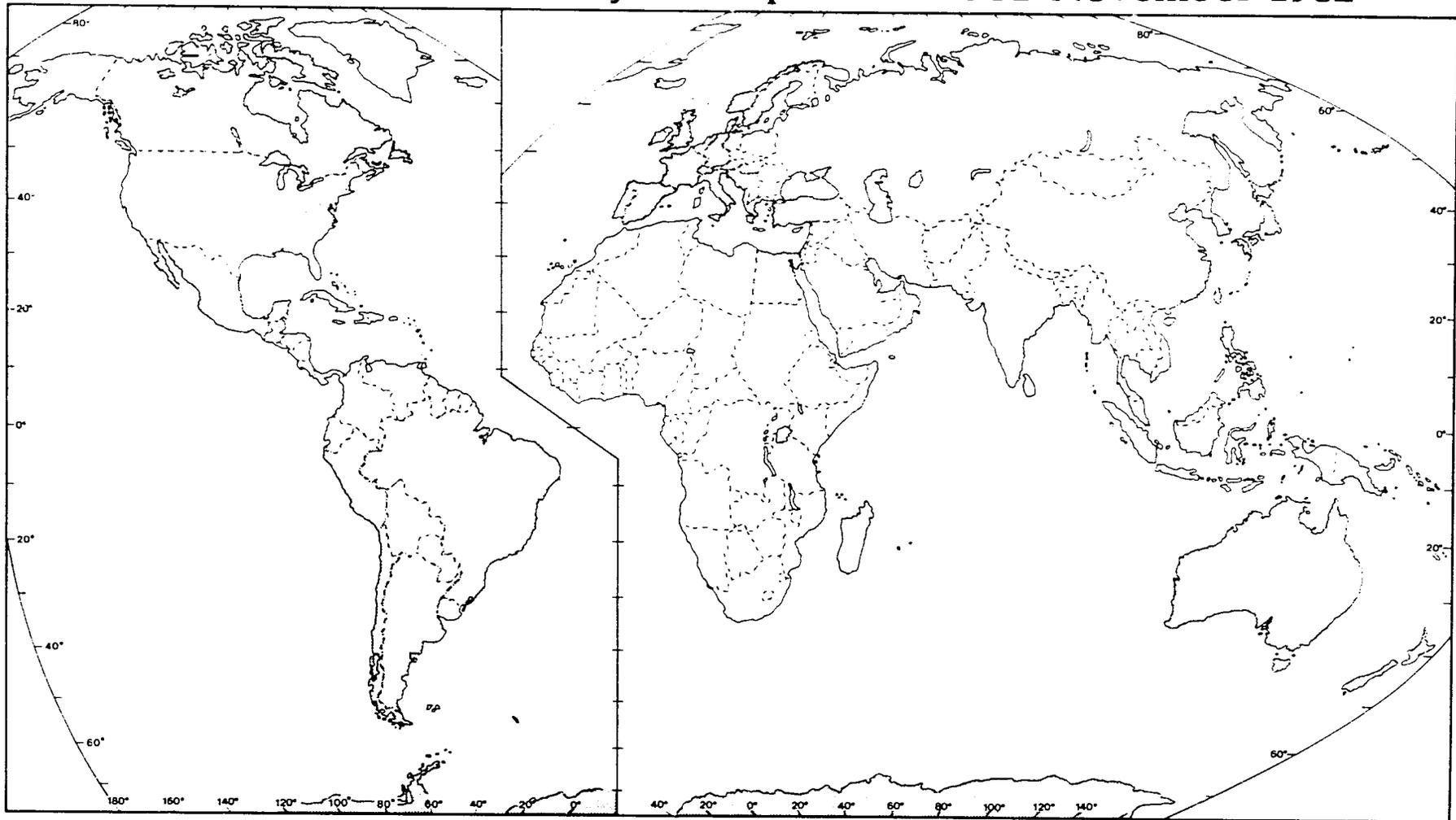


Sources of Germ Plasm of Tropical Grasses and Legumes

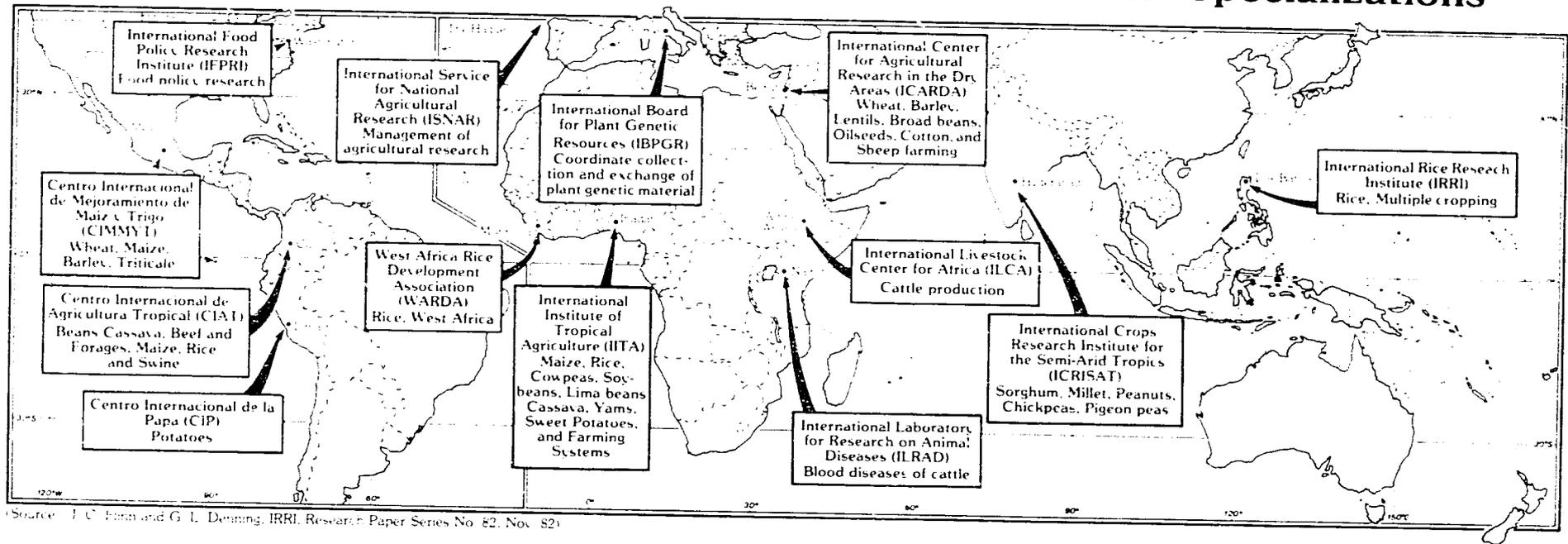


(Source: Dr. E. C. Holt, Department of Soil & Crop Sciences)

International Travel by Researchers Participating in Texas A&M University Research Foundation Projects September 1981-November 1982

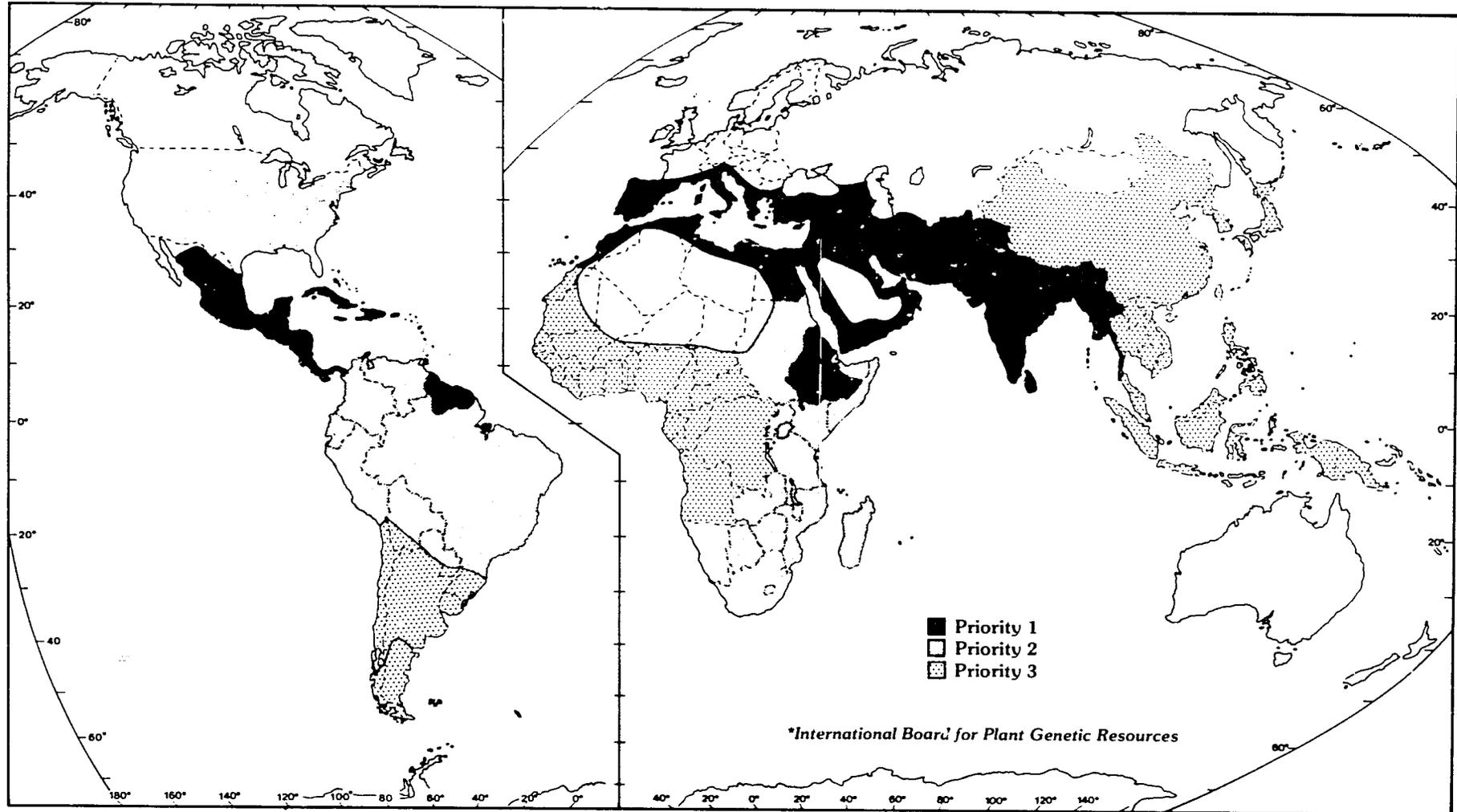


International Agriculture Research Centers and Their Specializations



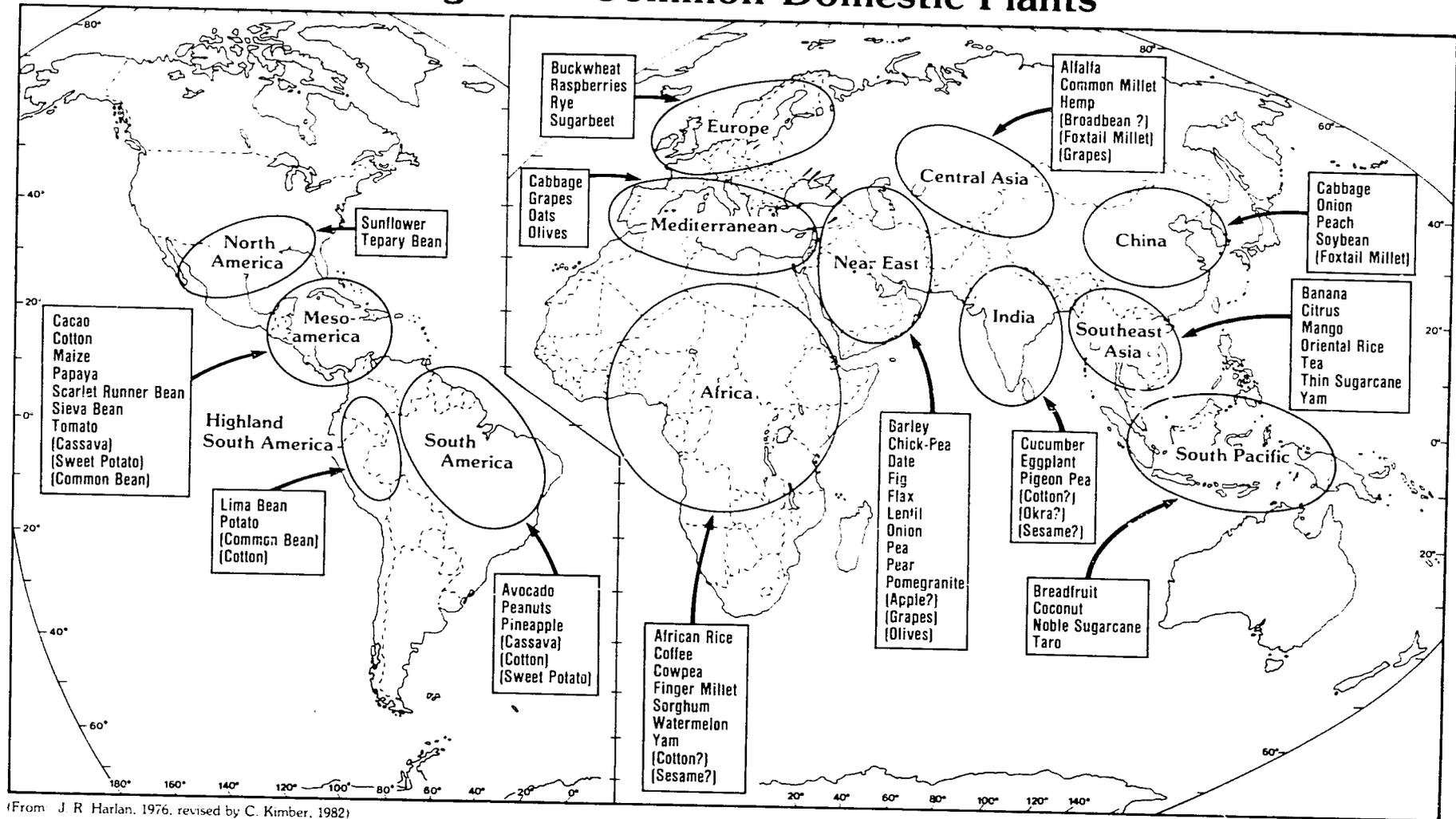
Source: J. C. Finn and G. L. Deming, IRRI, Research Paper Series No. 82, Nov. 82

The IBPGR* Regional Priorities As Of 1981

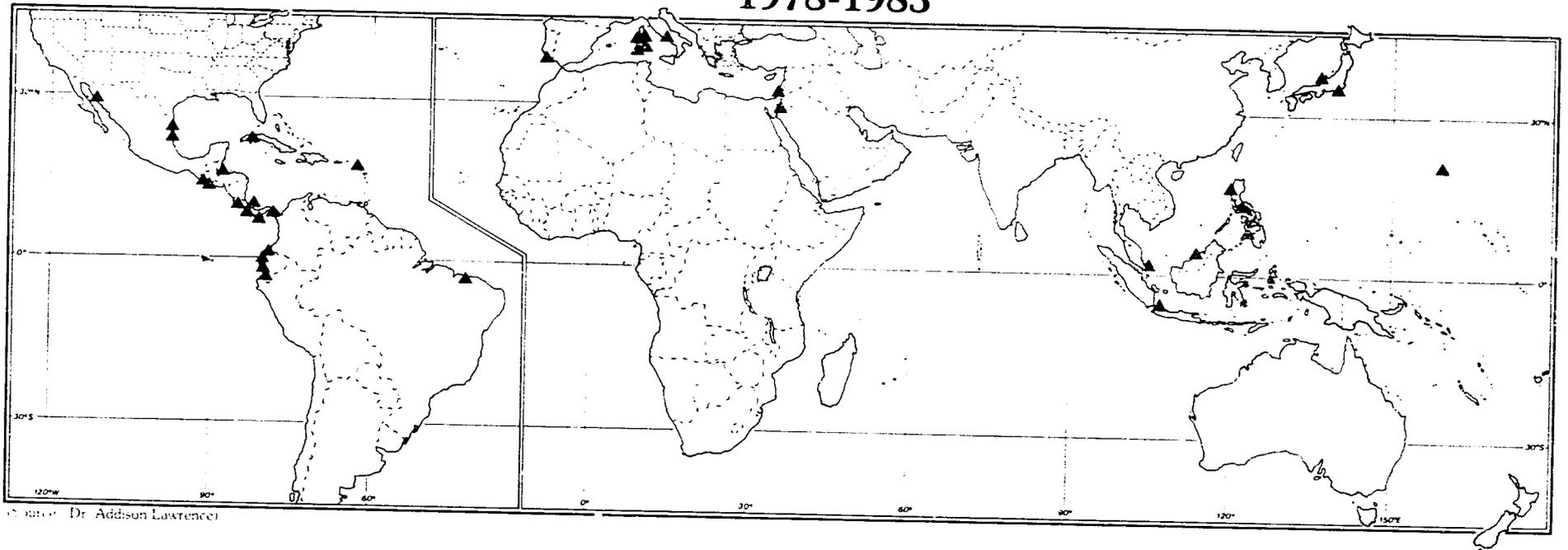


(Source: Crop Genetic Resources, International Board for Plant Genetic Resources, 1981)

Origins of Common Domestic Plants



Shrimp Mariculture Sites Visited by Texas A&M University Personnel 1978-1983



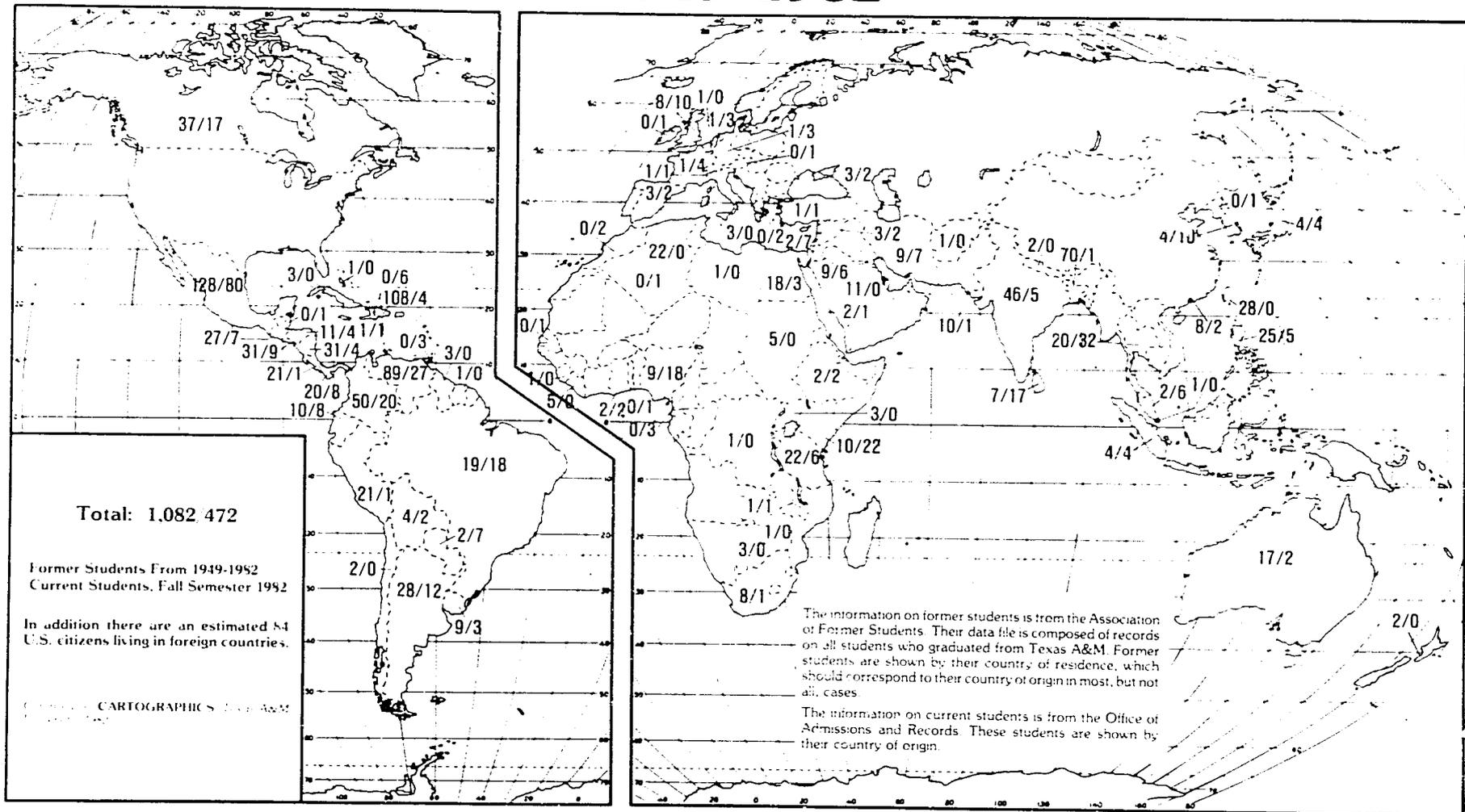
Source: Dr. Addison Lawrence

Educational Imperative

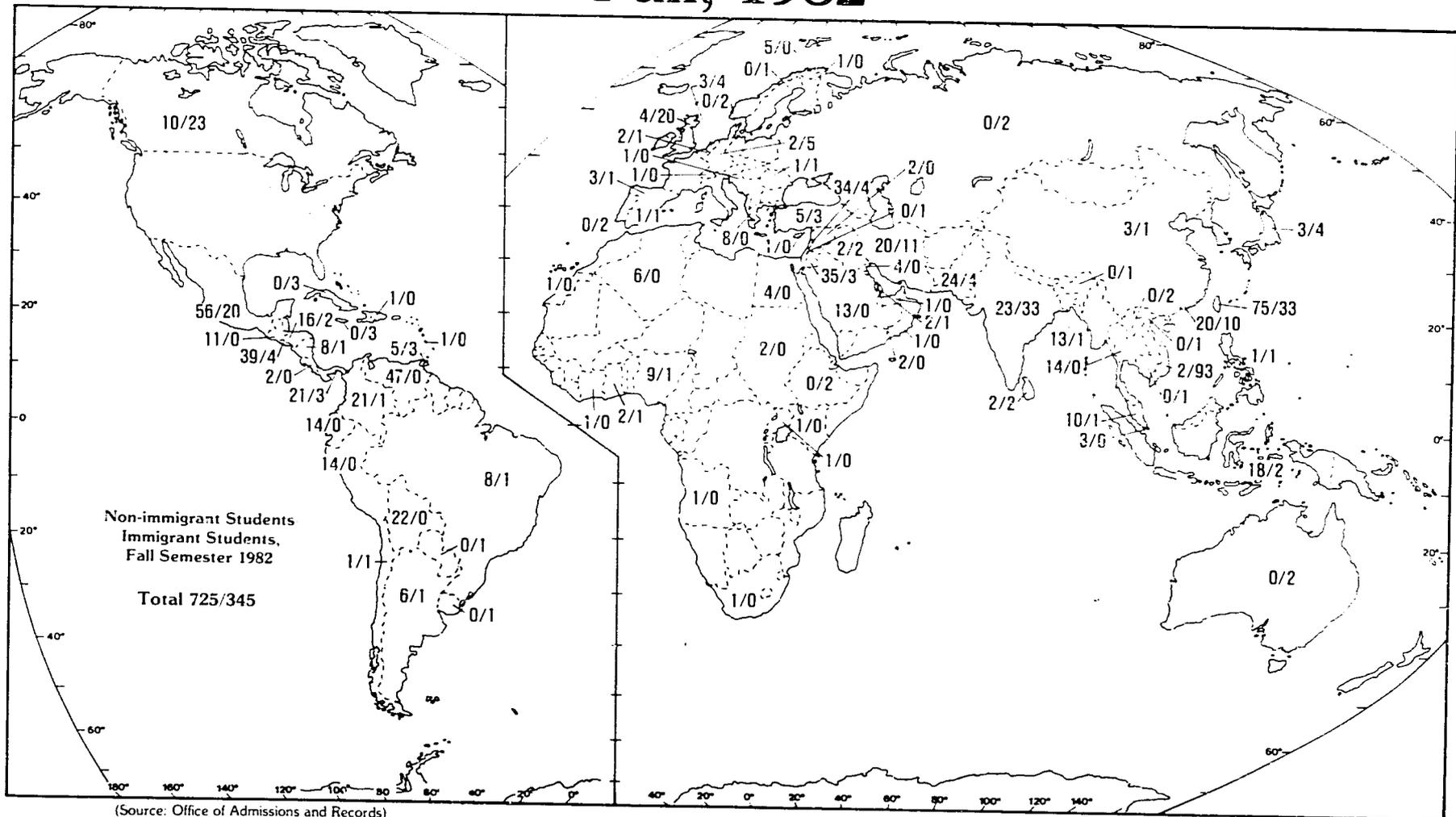
Educational Imperative

Since 1954, more than 3,000 international students have graduated from Texas A&M University and 2,000 international students, including 500 immigrants, were enrolled in 1982. Former international students who return to their home countries provide the University with vital international links in all fields and many occupy top positions in government and business. The knowledge they gain at TAMU contributes to their countries' development and the cultural diversity of the University community is enhanced by their presence.

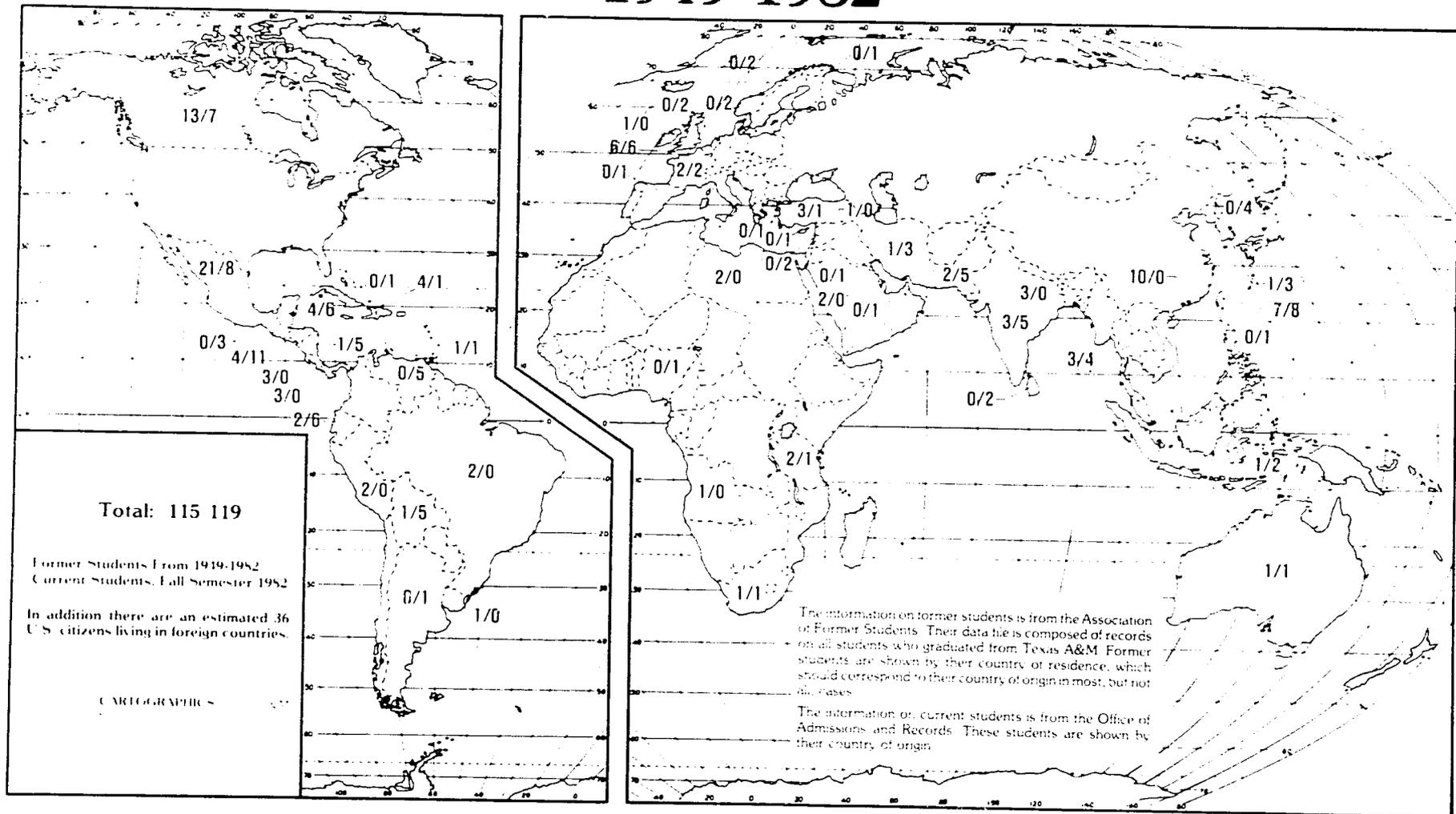
International Students at Texas A&M University College of Agriculture 1949-1982



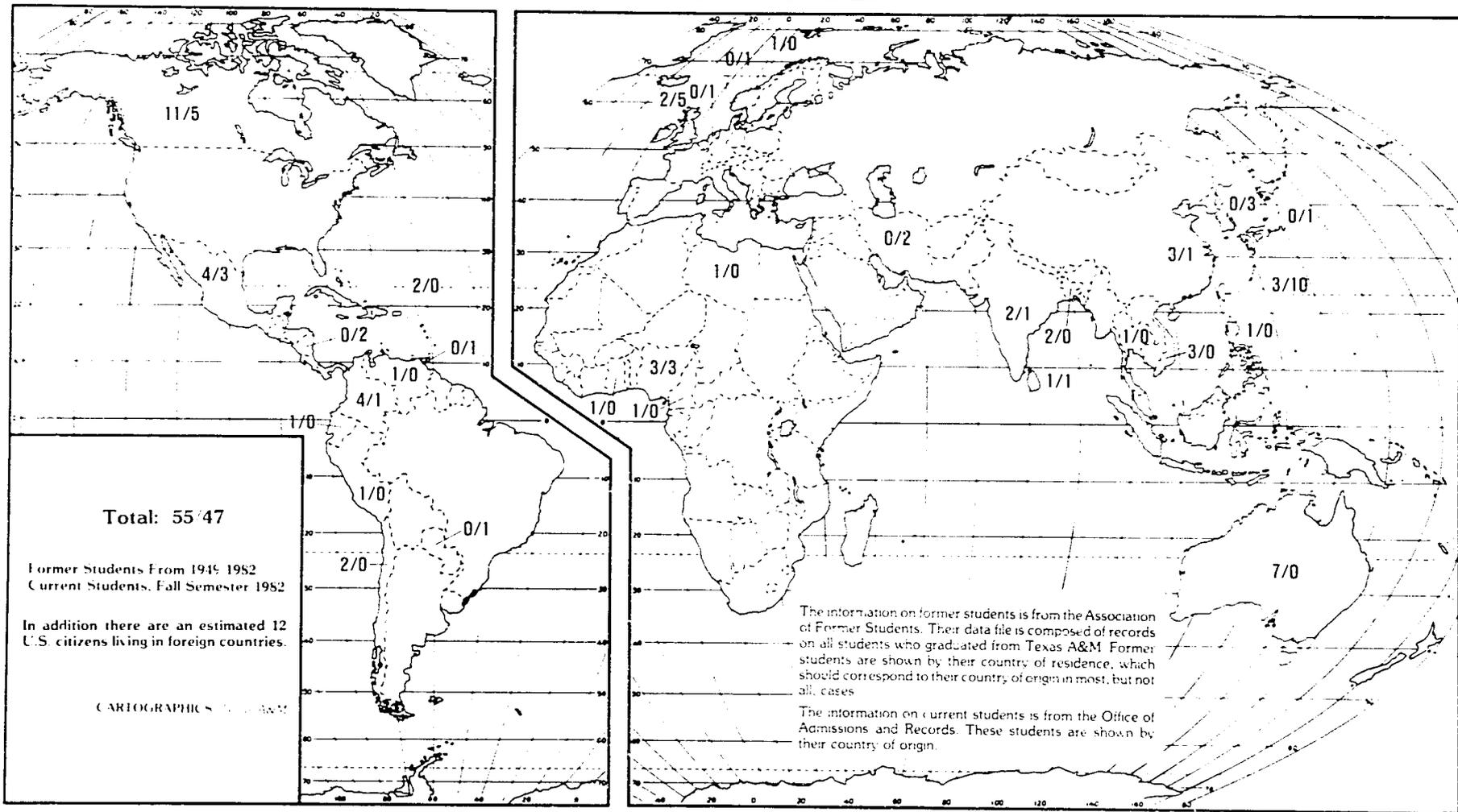
International Students at Texas A&M University by Visa Status College of Engineering Fall, 1982



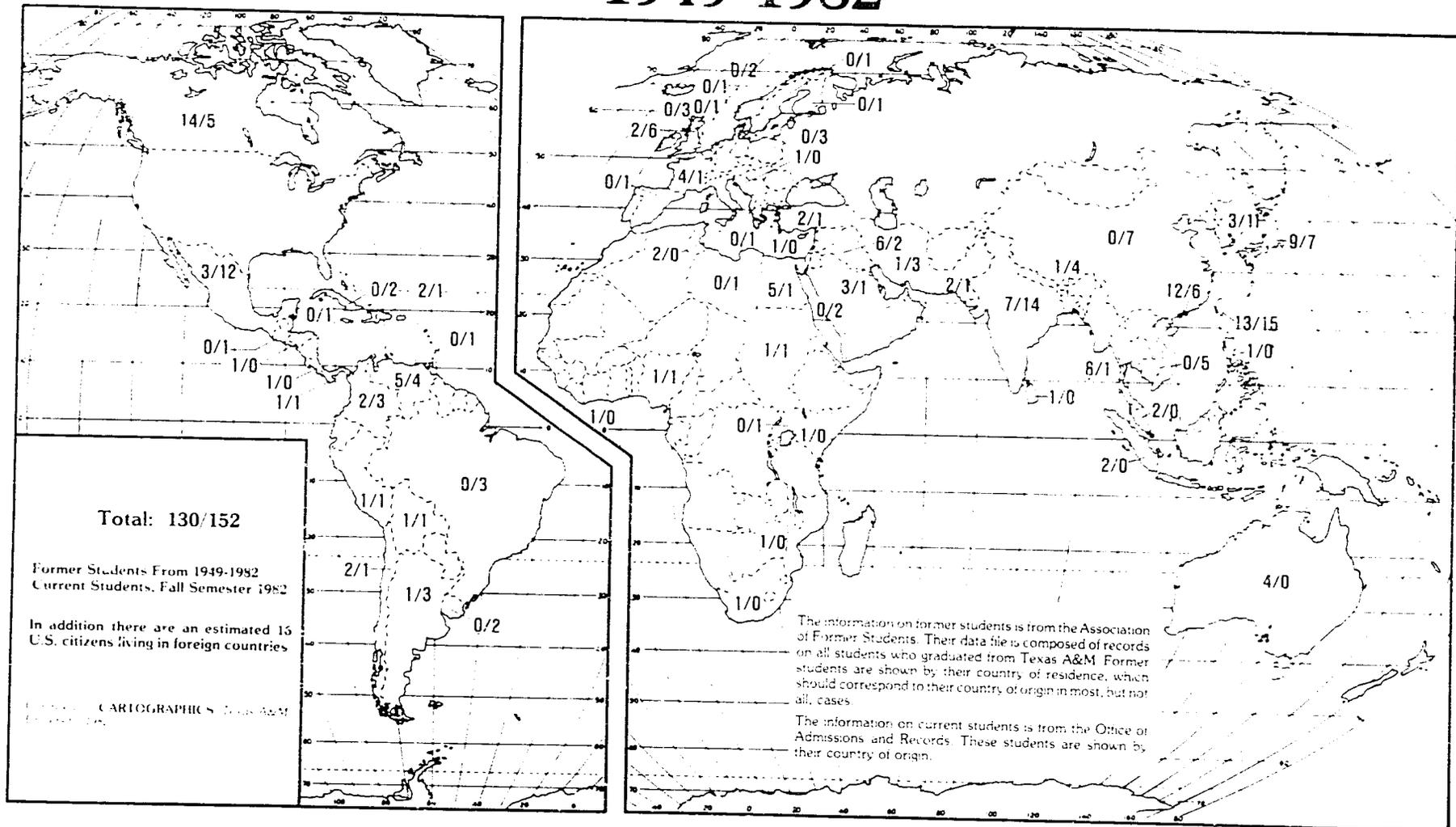
International Students at Texas A&M University College of Business Administration 1949-1982



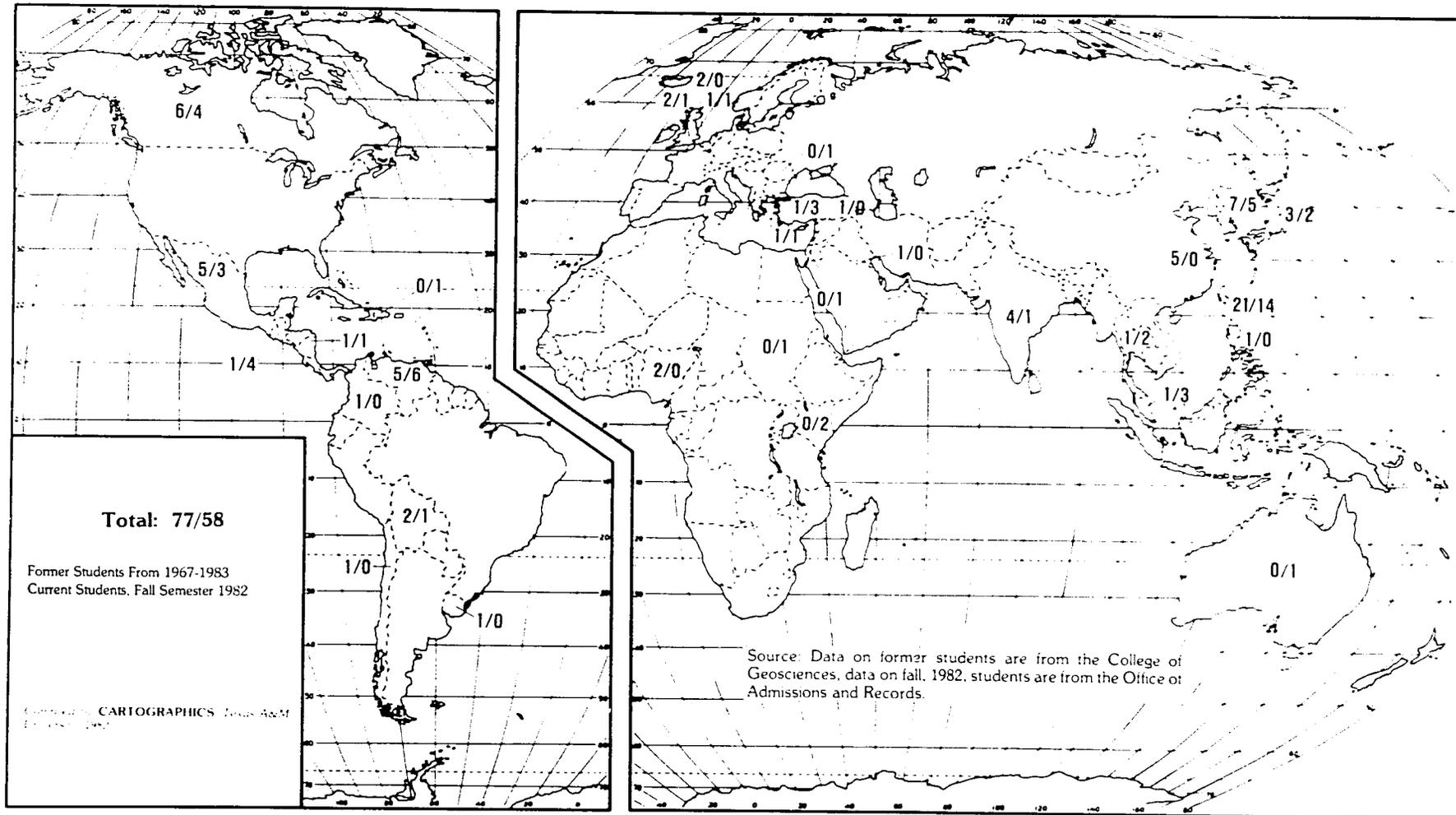
International Students at Texas A&M University College of Education 1949-1982



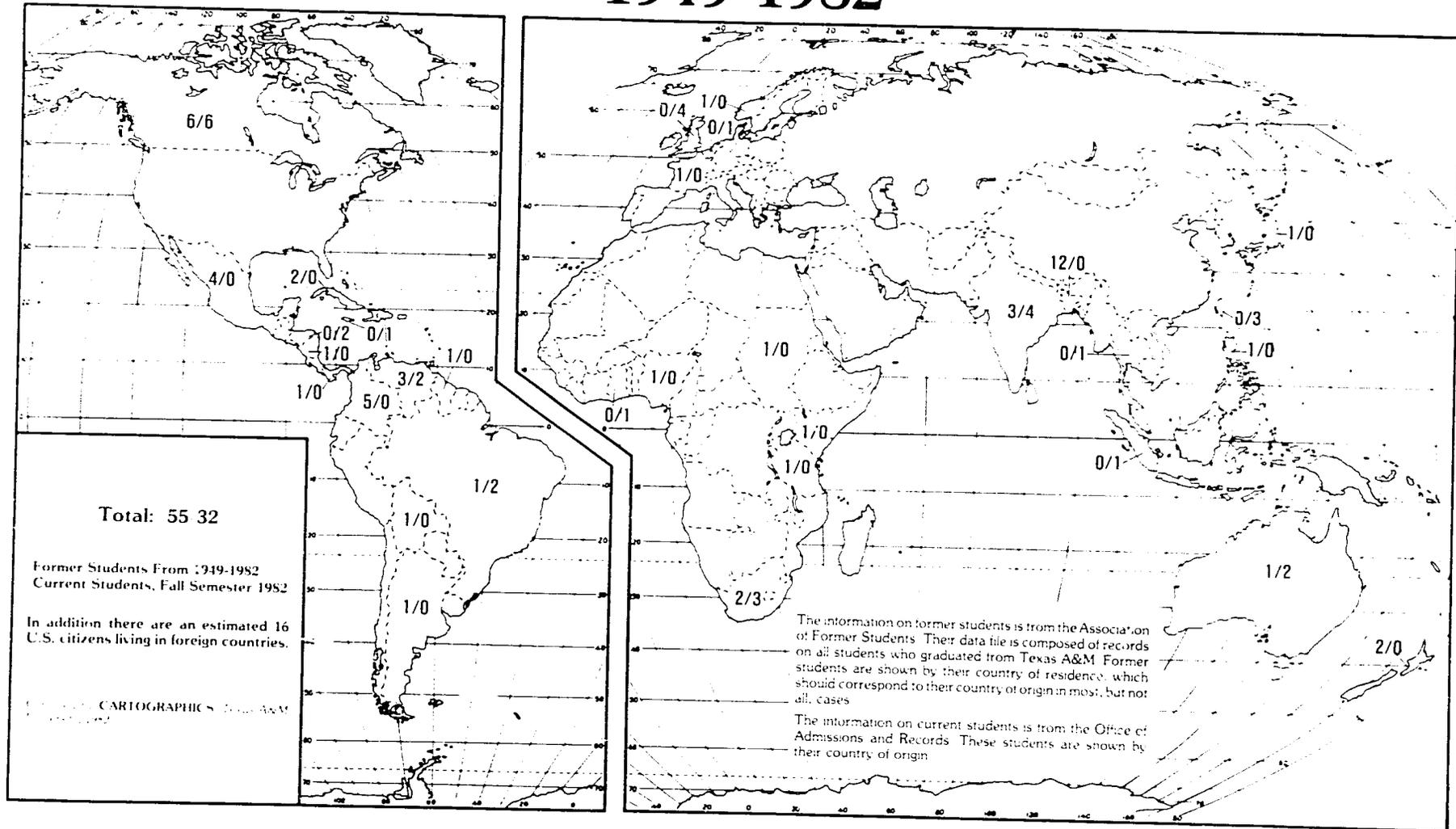
International Students at Texas A&M University College of Science 1949-1982



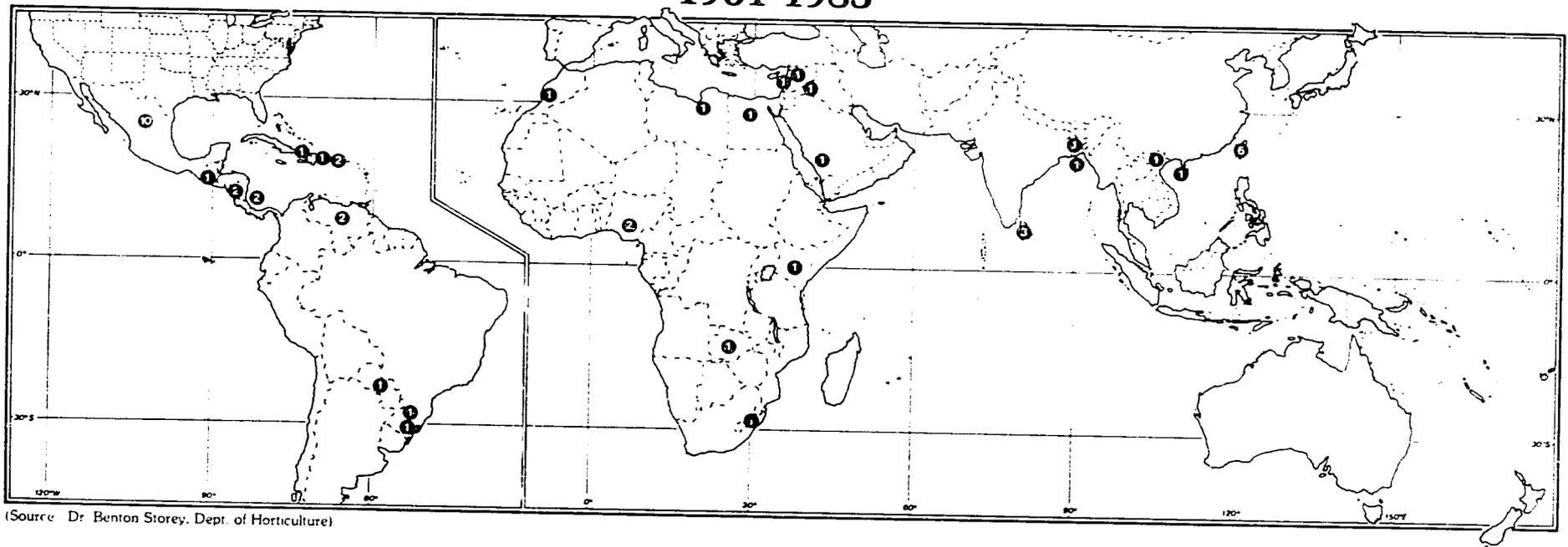
International Students at Texas A&M University by Country of Origin 1967-1983 College of Geosciences



International Students at Texas A&M University College of Veterinary Medicine 1949-1982

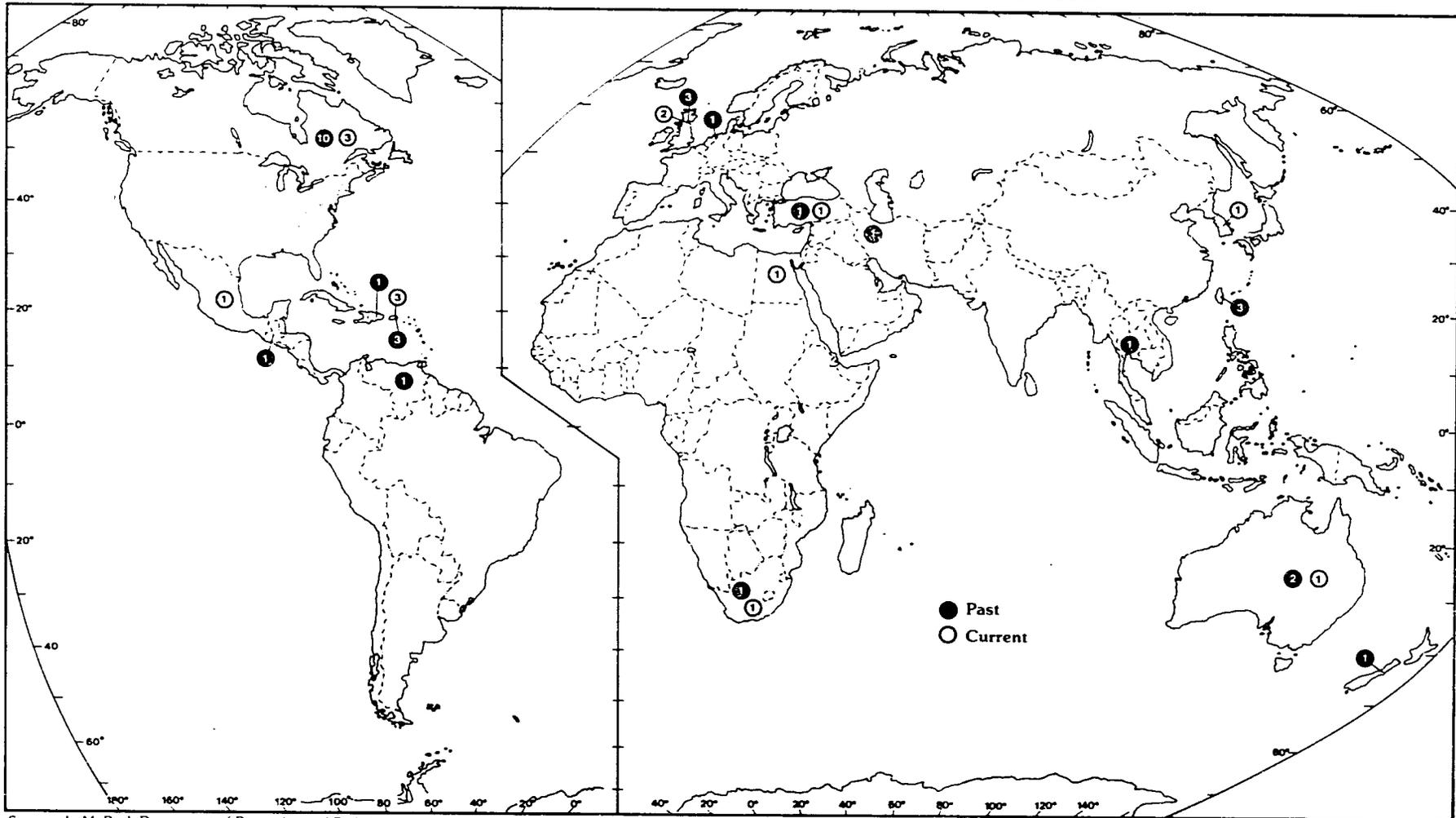


Former International Students in Horticulture 1961-1983

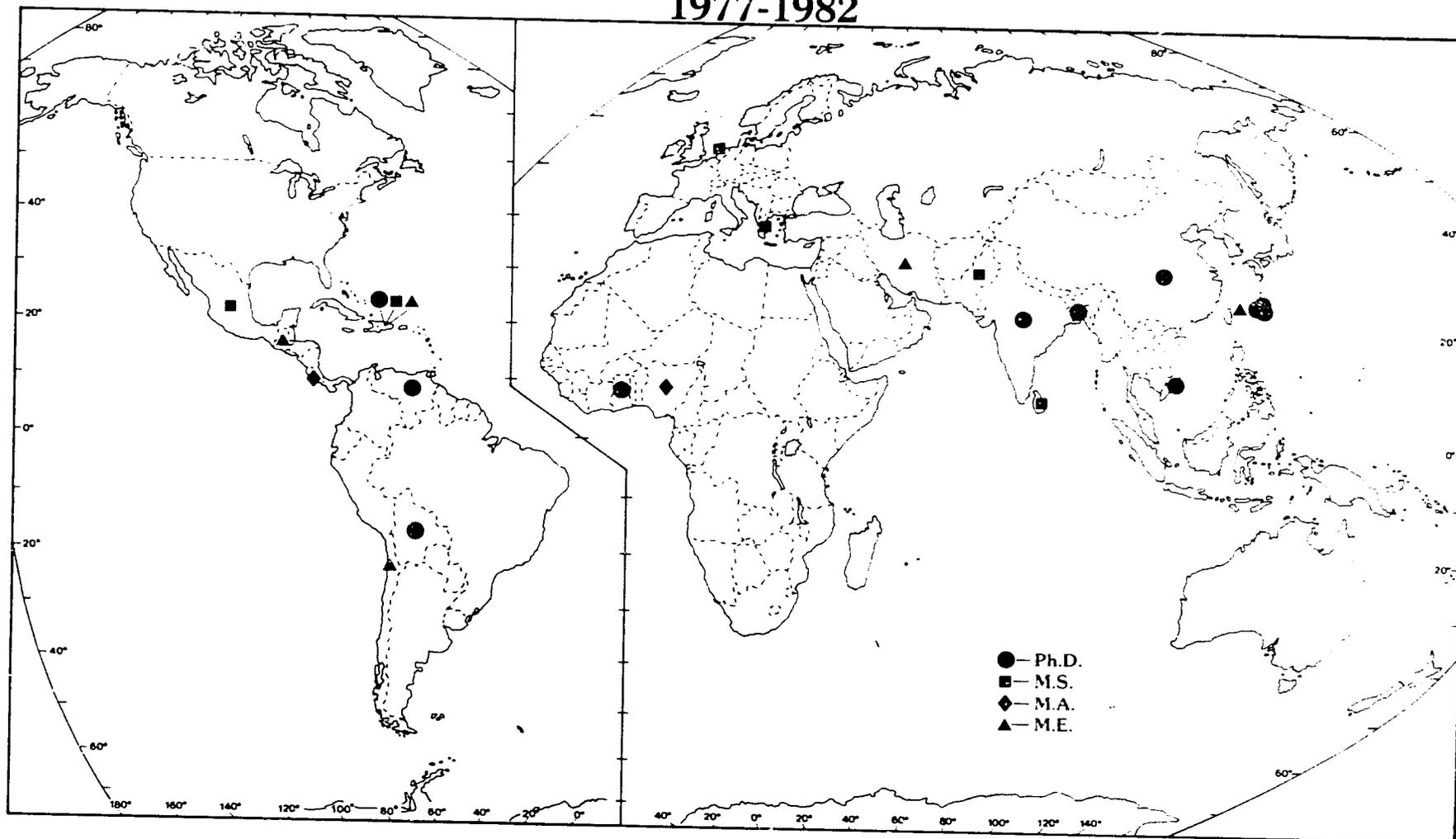


International Students (1970-1982)

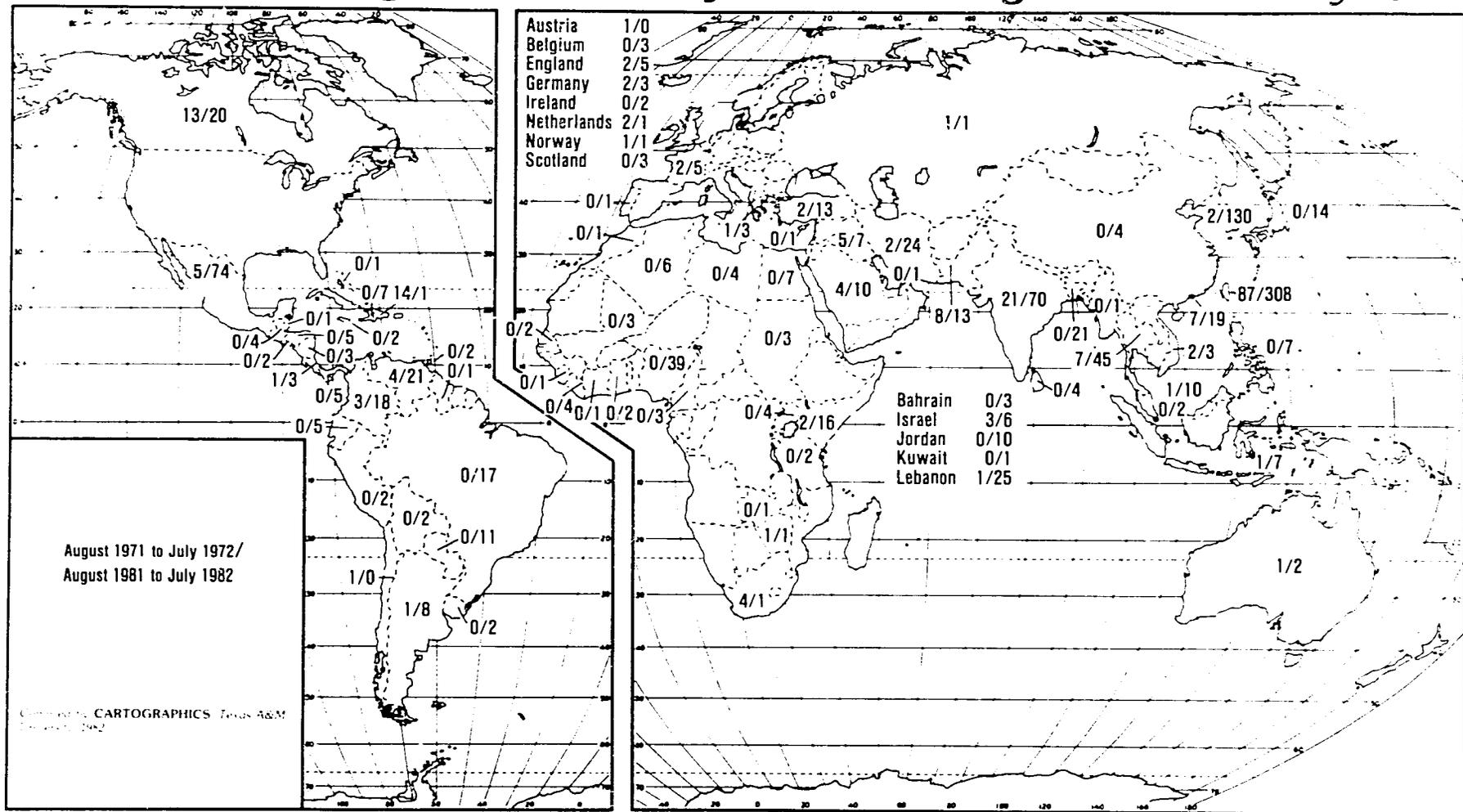
Department of Recreation and Parks



Graduate Degrees Issued To International Students Agricultural Engineering Department 1977-1982



Geographical Distribution of International Graduate Applicants for the Period August 1971 to July 1972 and August 1981 to July 1982

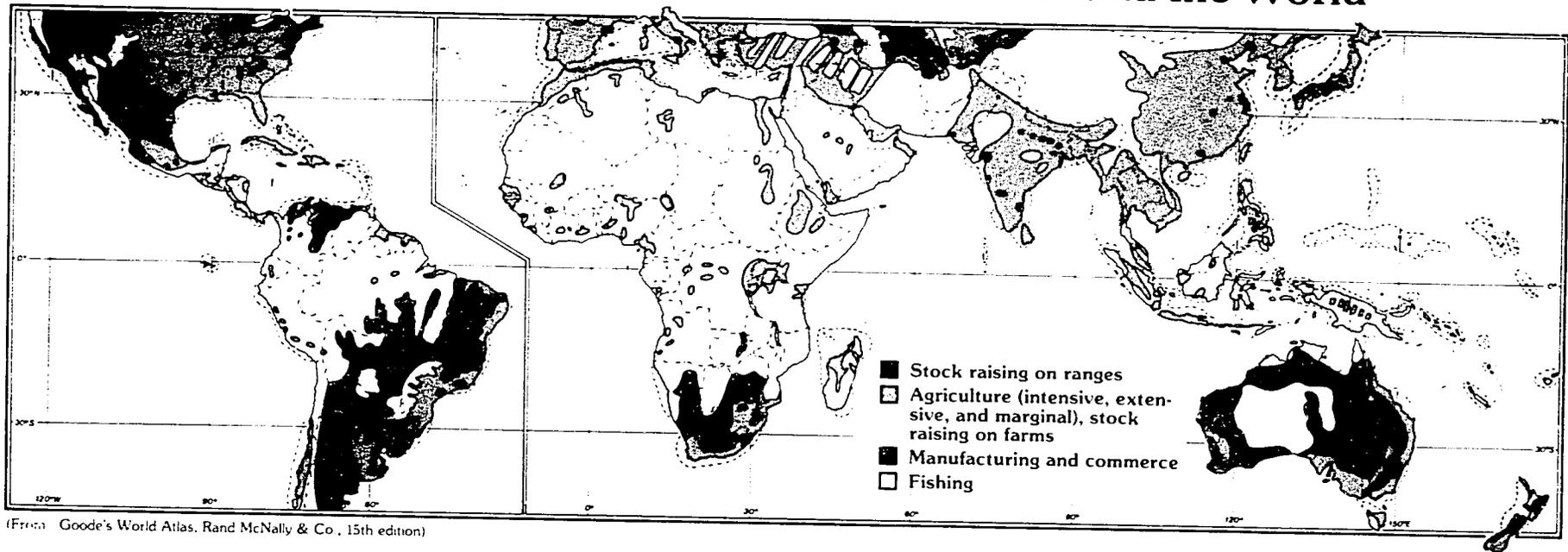


Economic Imperative

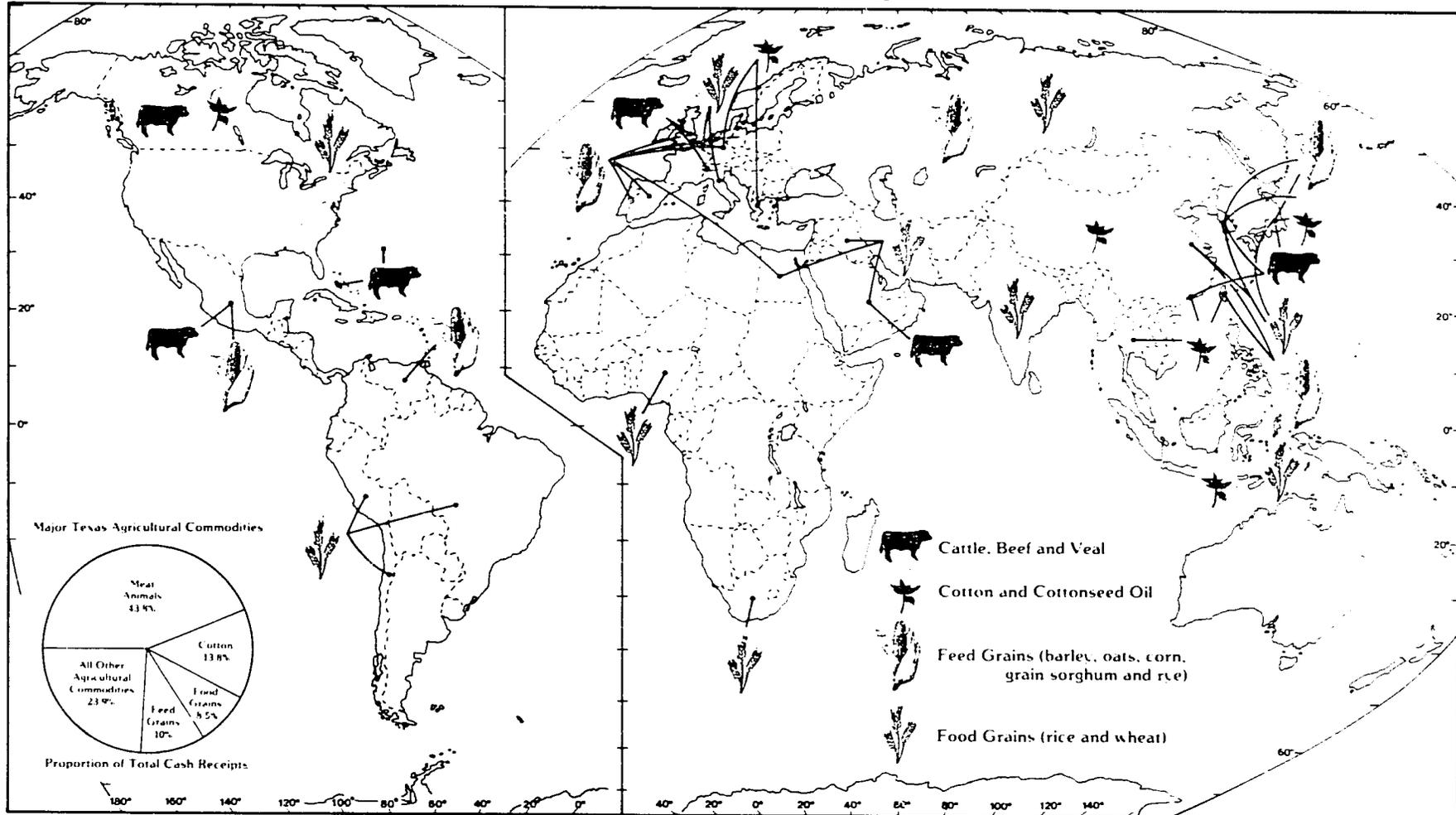
Economic Imperative

From 1970 to 1981 the value of agricultural exports from the U.S. increased from \$6.9 billion to \$43.8 billion. Texas increased its agricultural exports in this period from \$548 million to \$2.6 billion. The following maps identify those areas of the world that are of particular importance to Texas agricultural interests. If Texas is to continue as a major participant in international agricultural trade it is vital that Texans remain well informed about their customers and competitors or potential competitors. In addition, increasing economic interdependence in the world dictates that Texas work to develop new export markets for its products.

Common Predominant Economies in Texas and the World

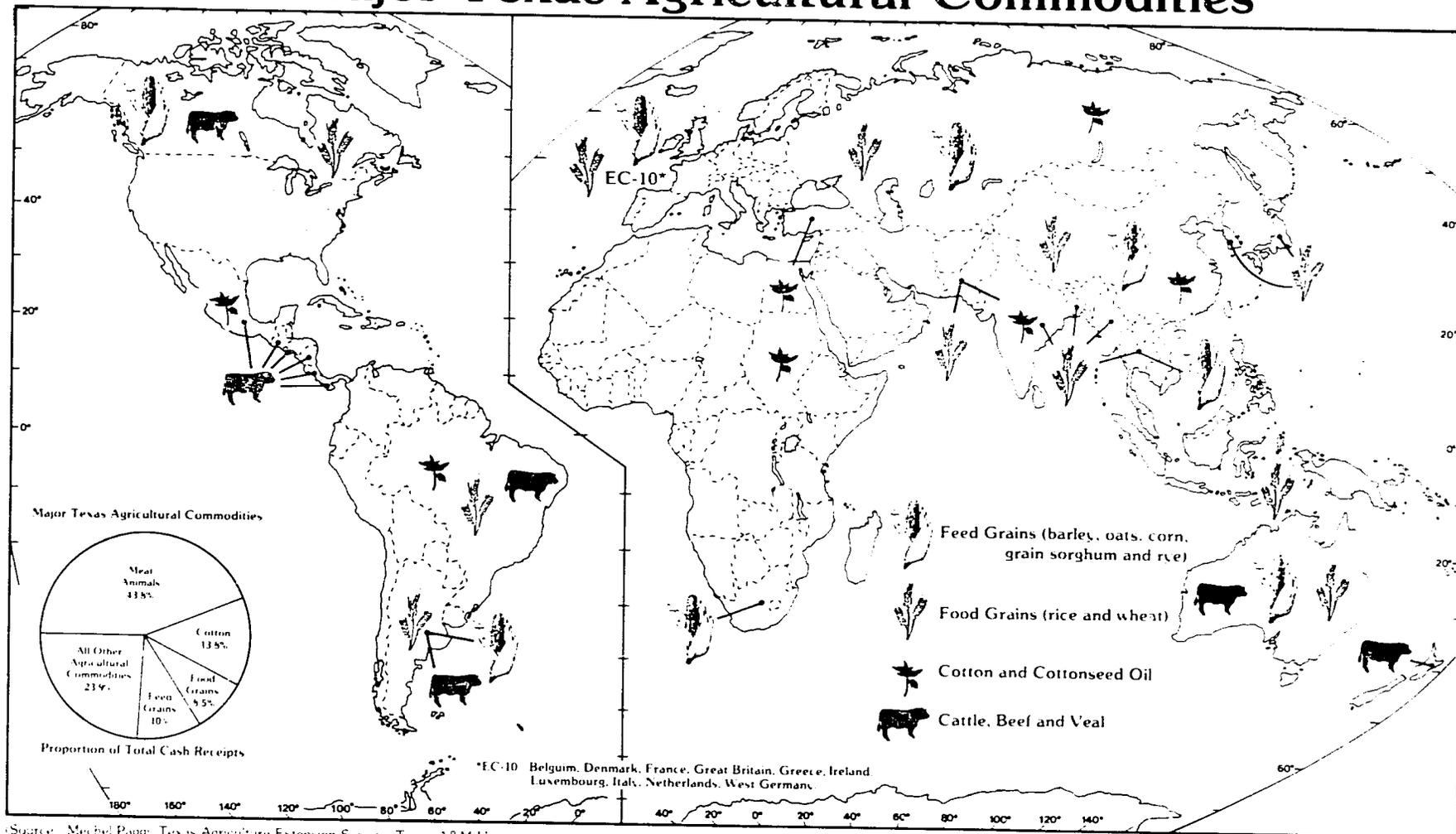


Major Export Markets for Texas Agricultural Commodities



(Source: Meche Paggi, Texas Agriculture Extension Service, Texas A&M University)

International Production Regions for Major Texas Agricultural Commodities



(Source: Melchior Paggi, Texas Agriculture Extension Service, Texas A&M University.)

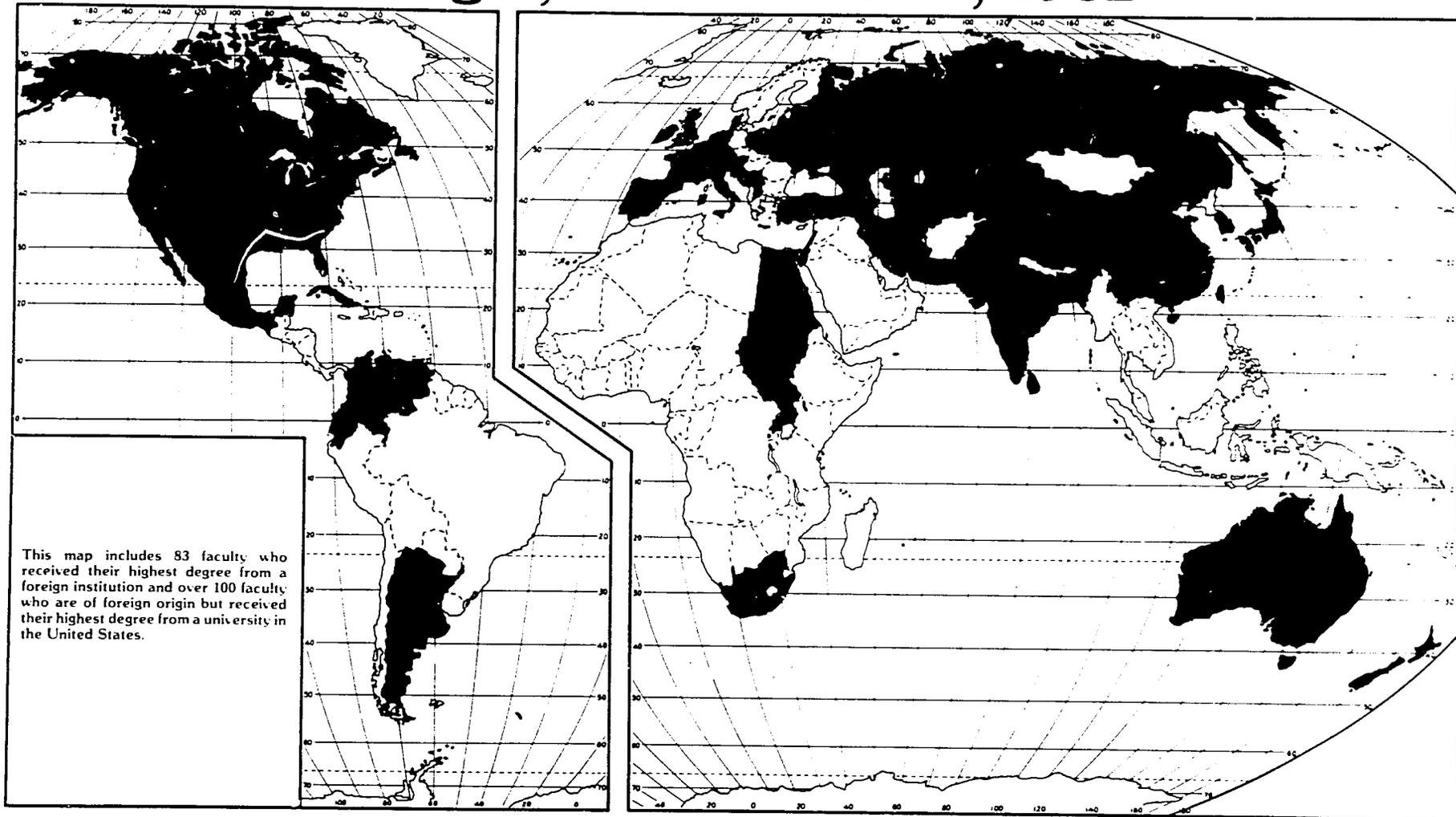
University Imperative

University Imperative

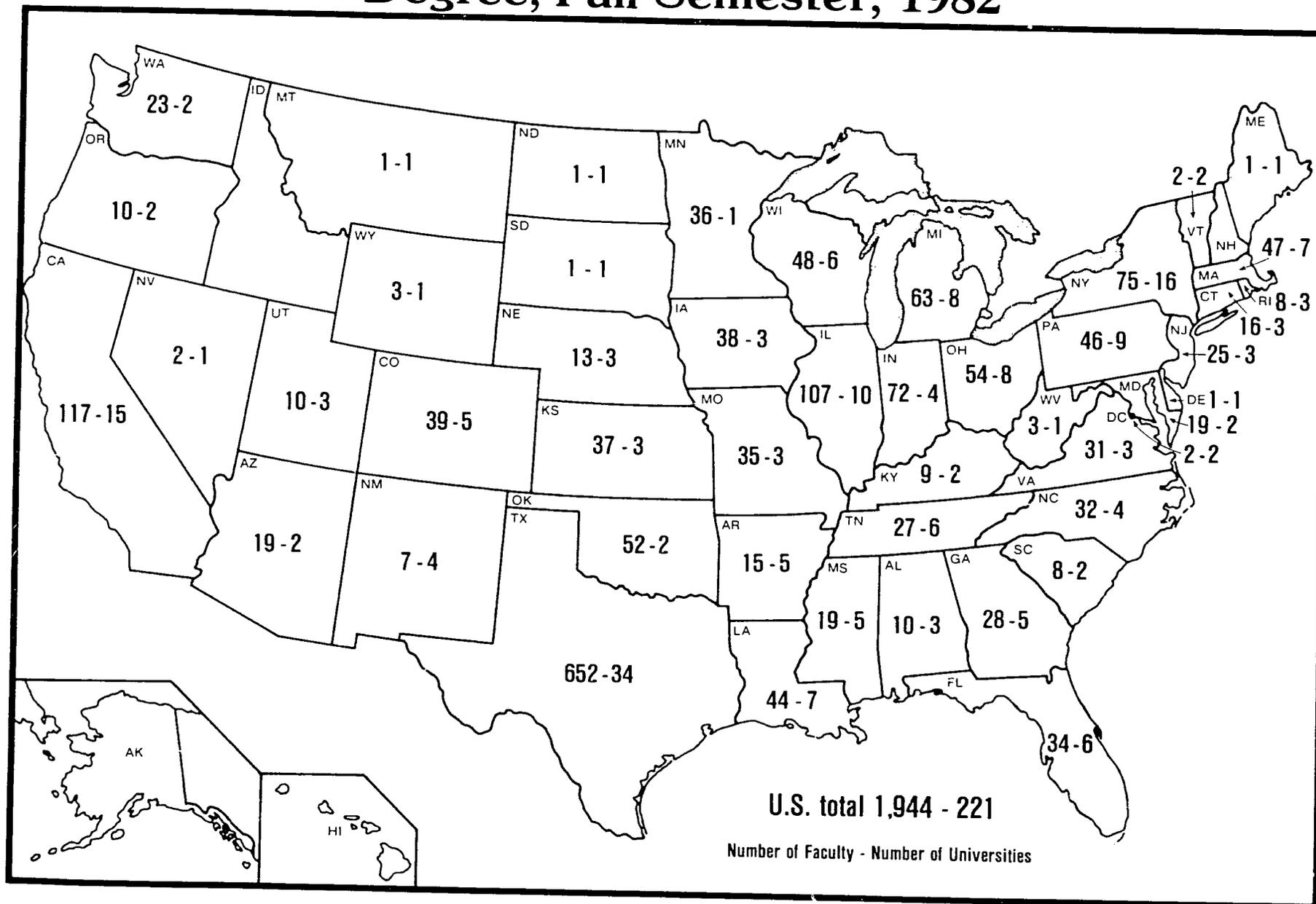
In the view of many prominent scientists and scholars, universities have an obligation to respond directly to pressing world problems. Texas A&M University has the resources and has demonstrated the commitment to international efforts toward solving problems of human survival.

Approximately 10% of the over 2,000 faculty at Texas A&M University are of foreign origin. Since the initiation of a technical assistance program in Pakistan in 1954, more than \$52 million in international contracts have been administered. TAMU has assisted in the development of institutions of higher education from Mexico to Bangladesh. It currently participates in projects in more than 20 countries and has established formal cooperative agreements with 18 international institutions. All of these accomplishments are valuable resources for future international cooperation.

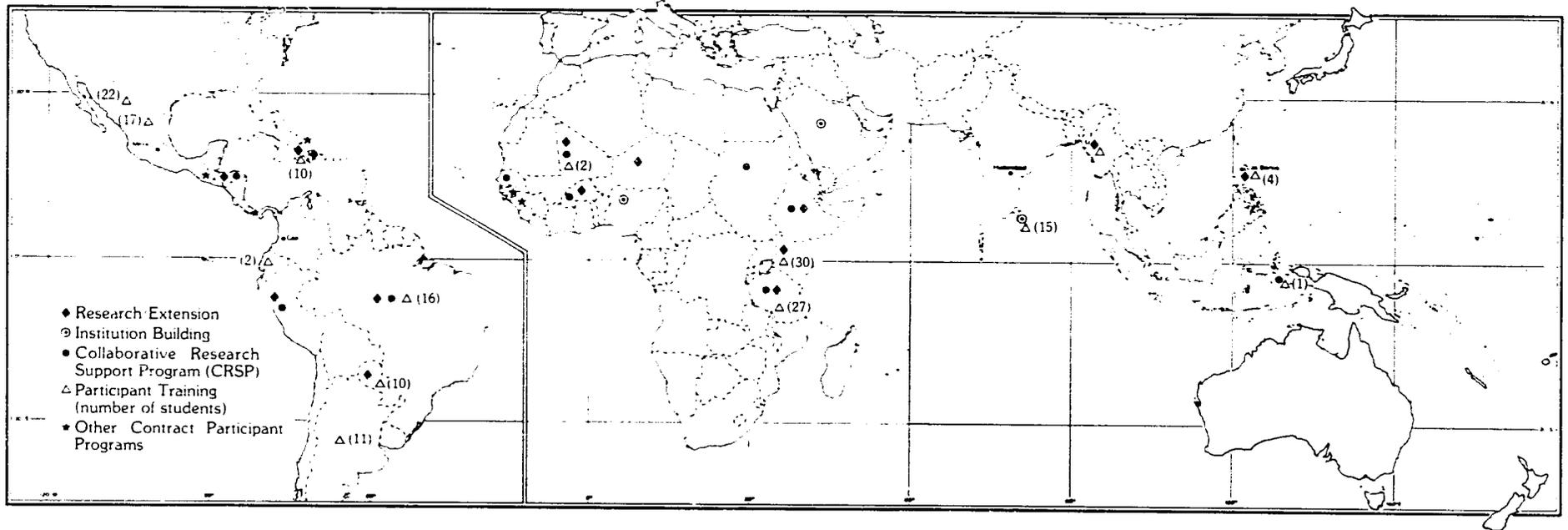
Faculty of Texas A&M University by Country of Origin, Fall Semester, 1982



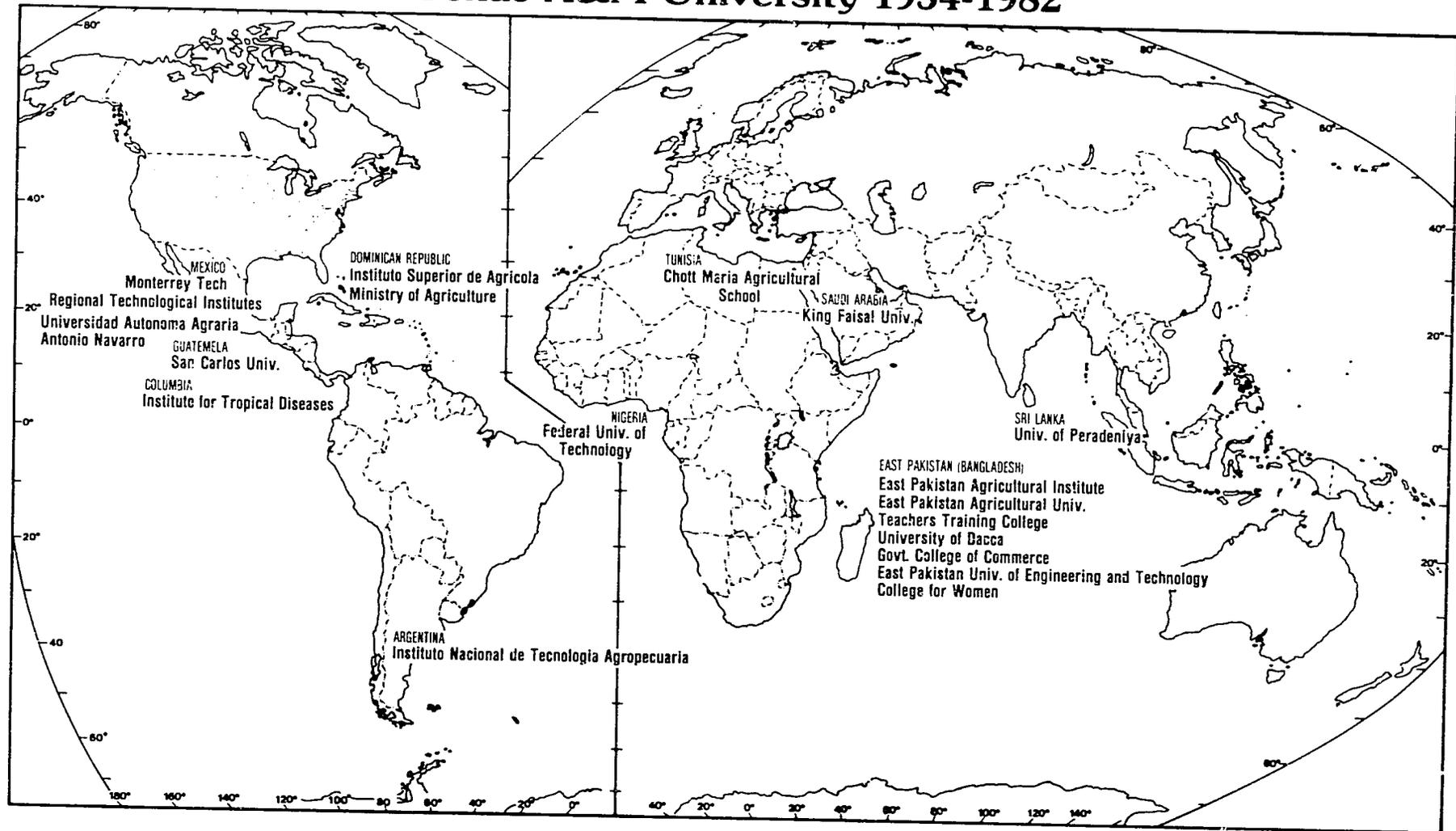
Faculty at Texas A&M University by State of Highest Degree, Fall Semester, 1982



Current Projects and Participant Training Office of International Coordination December, 1982



Institutions of Higher Education Whose Development was Assisted by Texas A&M University 1954-1982



Memorandums of Understanding Between Texas A&M University, German and Latin American Universities

