

**AGRICULTURAL MARKETING** in northeast Brazil leans heavily on the open air public market. In this photo by Dr. J. Richard Kuykendall of the U of A group, ← one can see the displays of squash brought to market for sale. Two men standing, in the background, are Prof. Diogenes Cabral and Tarquinio Prisco, both of the escola staff.

## *Menzie, Economist, Furnishes* **BRAZIL REPORT**

By Elmer L. Menzie

As a member of The University of Arizona team in Brazil, I would like to introduce you to some of my associates at the Escola de Agronomia, University of Ceará. Dr. Mario Rocha is a catedratic professor, my immediate counterpart in the Departamento de Economia Rural. He is the head of the department and specializes in the area of accounting and farm management.

Dr. Nilo Barroso is a half-time instructor who spends the other half of his working day at the Bank of the Northeast. He is the department's teacher in basic economic theory. Dr. Francisco de Oliveira Melo is another half-time assistant professor who teaches marketing. The other half of his time is spent teaching at a secondary school. Dr. Faustino de Albuquerque Sobrinho is a full-time professor in sociology and extension.

### **They Overcome Handicaps**

The members of this department, as in others in the Escola, work under many handicaps, and are appreciative of any help that we are able to give. Some have the strain of more than one job, and all suffer from a lack of time and resources for both teaching and research. For example, library facilities are minimal, which makes an effective teaching program extremely difficult. (A good building is now available and books are on

order for the new library.)

Trained personnel and other resources are in short supply for adequate research programs, yet research is of prime importance to development of the institution and the state. Information is badly needed to increase agricultural output and to improve teaching programs. All fields need and want more guidance and assistance.

Ceará, as one of the states of the area known as the dry Northeast, has many problems for its trained people to solve. In 1960 the population was estimated at 3.3 million approximately 24 percent more than in 1950. (About 15 percent were in the city of Fortaleza, where population nearly doubled in the 10 year period). It is estimated that about two-thirds of the population is rural and about the same proportion has been classified as economically inactive. That is, they really do not participate in normal commercial markets.

### **Per Capita Income Low**

Gross per capita income in Ceará in 1960 of about 12,000 cruzieros was less than half the average for Brazil as a whole. (The cruziero at that time was about 200 to the U.S. dollar, making the above per capita income around \$60). Distribution of income is also very poor, with the largest part of the population receiving bare subsistence. Early in 1965 minimum wages for salaried employees was raised to about 40,000 cruzieros per month. At the prevailing rate of exchange this amounts to approximately \$21. (Inflation has reduced the value of the cruziero from the 200 per dollar in 1960 to 140 per dollar in May of 1965). A large part

of the population, of course, does not enjoy even the 40,000 cruziero-per-month minimum.

Inflation is a constant problem. While the present government is acting to relieve this situation, it continues to persist. Based on 1948 = 100 the index of general living costs in Fortaleza, Ceará, in the first part of 1964 was over 3500. Between 1961 and 1964, the index nearly quadrupled. The problems resulting from such a rate of inflation have been phenomenal, and a major part of the current government's program is directed toward bringing this aspect of the Brazilian economy under control. Indications are that in recent months the rate of inflation may have been reduced.

Nearly half of the income of the state of Ceará in 1960 was derived from agriculture. Output has been rising, but not nearly as fast as the inflated values might indicate. Recent year production estimates place the value of cotton at about 25 percent of the total, bananas, beans and "milho" each about 10 percent, with meat, hides, milk and eggs together making up over 20 percent.

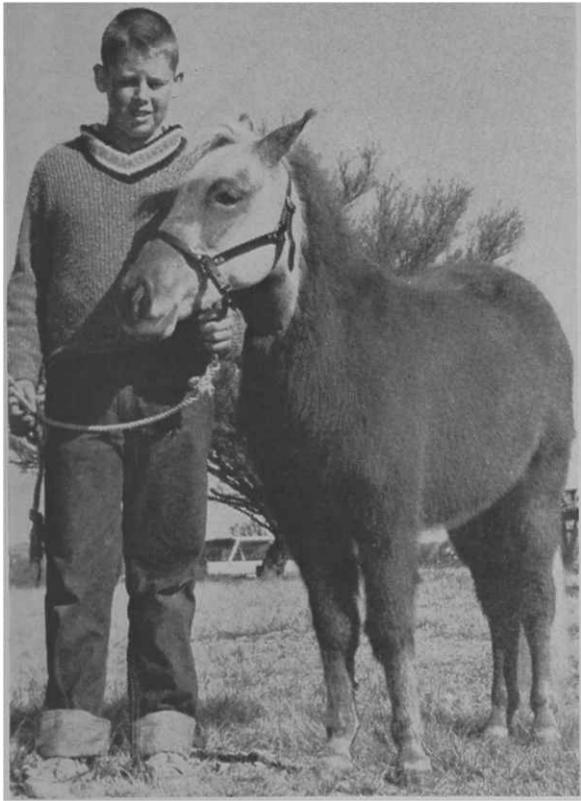
### **Hacienda Plantation Farming**

Agricultural production is largely primitive in nature. Much of the  
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**WORKING TOGETHER FOR Brazilian agriculture** are, left to right, below, Francisco de Oliveira Melo, Elmer L. Menzie, Nilo Alberto Barroso, Mário Rocha and Faustino de Albuquerque Sobrinho.



This article is one of a series of reports by U of A agricultural scientists stationed in northeast Brazil. Dr. Menzie is the adviser in Agricultural Economics.



**HAPPY IS A BOY** and his pony, in this case David Linneen, 11, of Tucson, given a registered Shetland to care for as a 4-H project. The pony was given to David by the regional club of the American Shetland Pony Assn., at ceremonies at Hungry Horse Ranch, near Tucson. David is son of Mr. and Mrs. R. H. Linneen.

## Foreign Visitors, Trainees Receive Warm Welcome Here

By James F. Armstrong

*A year ago readers of this publication were introduced to the liaison officer, International Programs Personnel, who was filling a newly created position in the College of Agriculture. This position was created primarily to function as "contact officer" between the College of Agriculture and the Foreign Training Division, International Agricultural Development Service, United States Department of Agriculture, Washington, D. C.*

The Foreign Training Division (FTD) is charged with the responsibility of arranging training programs in agriculture with land-grant colleges

and universities, private colleges and universities, federal government agencies and private concerns and individuals. A particular program may combine coordinated training from any combination, or all, of these sources.

In general, FTD arranges programs for International participants sponsored by Agency for International Development (AID), Food and Agriculture Organization of the United Nations (FAO) and other similar sponsoring agencies. Assistance in arranging and coordinating training programs for privately financed participants is also provided by FTD.

### It Is An Involved Job

Primary duty of the "contact" is to accept, reject or recommend changes in proposed training programs, as submitted by FTD to the College of Agriculture on behalf of sponsored international participants. This function is done with cooperation of department heads and their staff and/or with administration personnel in the area of interest. Once the primary duty is completed, and assuming pro-

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land is owned and operated by "Fazendeiros". In 1960, over 28 percent of the farm units had less than 10 hectares and retained less than 1.5 percent of the land area.

Establishments with 100 hectares or more had over 75 percent of the agricultural land area, but had less than 55 percent of the cultivated land. In 1960 only 316 tractors and 1305 plows were recorded in the whole state. These numbers are increasing and the state is starting to establish rental stations, but most producers still do not even have mule power.

Problems in agriculture are not only those of increasing productivity. The lack of storage programs for either animal or human food supplies increases the severity of the problems in dry periods. There are seasonal shortages yearly which create real problems, in addition to severe shortages during periods of drought.

The practice of harvesting and maintaining stocks of forage or other feeds is almost non-existent. As a result of this and other factors, it takes approximately four to six years for beef animals to be prepared for

market. Thus, even though there are relatively large numbers of cattle in the Northeast, meat supplies are low. Furthermore, if dry periods are extended, the basic herd tends to be reduced because of the lack of feed to meet the needs.

### Not Heavy Meat Animals

It is difficult to obtain comparable estimates of productivity especially on a state basis. However, estimates for 1962 indicate that 79 million head of cattle in Brazil produced less than 3 billion pounds of beef carcass, while a U. S. inventory of 99.8 million head produced over 15 billion pounds of beef. Estimated inventories of hogs in Brazil in 1962 were more than 90 percent as large as those for the U. S., yet production of pork in Brazil was shown to be less than 10 percent of U. S. production. Indications are that productivity in Ceará is somewhat lower than the Brazilian averages.

Lack of storage of human foods creates problems for both producers and consumers. Items on the food list become intermittently unavailable, and if droughts occur even basic foods must be imported. Producers lose since they are forced to accept going market prices for their products when they are harvested

and are unable to take advantage of higher prices when supplies are short. Transportation is also a major problem. Some areas lack access to markets because roads, railroads and transportation equipment are inadequate.

Estimates have been made that from 25 to 50 percent of the product is lost between harvest and consumption. This is due to the lack of storage, refrigeration and other factors such as inadequate facilities for transportation and handling. For example, perishable products may stand for long periods exposed to the hot sun or rain and movement of fruits and vegetables is almost entirely a bulk operation with numerous handlings of the product.

### Future Looks Bright

The problems seem endless but an effort is being made by the people of Ceará to cope with them. New power sources, highways, schools, and projects for improvements in both agriculture and industry are evidence of progress in the struggle for economic development. Like Brazilians elsewhere, the Cearense is optimistic about the future in spite of the problems, and believes that his country is the land of tomorrow.