



HAYING IS ARDUOUS — Here a Brazilian worker cuts hay with a straight ← knife or machete. The grass is tough and hours get long if the field is large.

Report From Brazil on

AGRICULTURAL ENGINEERING

By Edwin O. Finch

In Arizona it is common practice to harvest crisp head lettuce by manually cutting a head at a time. In Ceara it is an equally common practice to cut grass for hay by hand — almost one blade at a time. University of Arizona agricultural engineers are concerned with both.

At the moment, with a four row commercial harvester test this season, the hometown team in Arizona is much further along with lettuce than is the road team with Brazilian hay. But, having been a part of both teams, I'd like to say a little about what I'm doing in Brazil.

Since a late August arrival last year, I have had many experiences — the warm reception of our hosts, the work and discussions in the mechanics department, the visits to equipment dealers and the trips to the university experiment farm and to other state, federal and private farms around the state. More recently, however, the

emphasis has shifted from experiencing to experimenting.

Bilingual Linguistics

Home turned out to be in the Mechanics Department where its Chief,

STUDENTS ARE INTRODUCED by Dr. Barbosa to simple forms of tillage machinery. He is discussing the single-bottom walking plow. At right, foreground, is a small spike-tooth drag harrow.



Dr. Milton and I grasped a few fundamentals of a new language which has been coined around the campus as "Port-English." Despite its varying percentage of Portuguese and English, we swapped jokes and ideas. Using this same language (with slightly larger amounts of Portuguese and a few overtones of his French) the likable second professor of mechanics and I sat down to draw up some lab outlines. Meanwhile, my other contact, Dr. Barbosa, head of Agricultural Practices, continued to introduce the students to tractors, some of them for the first time.

Contrasts are common — from poor roads to stepped-up interest in road building, or from darkened shacks to giant new power lines to meet a present and future need. The northeast of Brazil is not that of 15 years ago, nor is the one of 15 years hence likely to be that of today.

"An auto parts vendor on every corner" might well have been the slogan of a recent day politician. In the case in point, Fortaleza, Ceara, he must have won and carried through. What this means to me is, there is

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Ed Finch is agricultural engineer in the U. of A. team of agricultural scientists stationed at the University of Ceara, in northeast Brazil.



MAP SHOWS STATE of Ceará and city of Fortaleza where the U of A agricultural scientists are stationed.

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a growing mechanical awareness. It has not yet reached deeply into the agricultural scene, perhaps deepest so far in the form of growing fleets of trucks to move products from the farms.

Power Farming Scarce

Around the countryside, power farming is scarce. An extremely low percentage of private farms has tractor equipment. Nor have advanced animal power tools developed to the extent they did in the U. S. before the advent and popularity of the tractor. At present, the majority of the rural population does not have the potential, in terms of capital or productivity, to intensively mechanize. Economic changes are likely to occur before farm mechanization increases to any appreciable extent. Today's ratio of 1 to 10,000 between a worker's daily wage and the cost of a tractor contrasts sharply with that of the U. S. of about 1 to 400.

There is little doubt but what mechanization can and will gain ground. The University of Ceara agricultural complex hopes to get a badly needed operator echelon maintenance and care school started in the not too distant future. And ANCAR, the extension agency, is thinking in terms of limited mechanization on a broad base. On the commercial side, there are roughly half a dozen tractor dealers in Fortaleza and one of them is now constructing a workshop to be comparable to any. Should you care to set up farming operations in Ceara, Brazil, you may choose from familiar or unfamiliar brands of equipment — Ford, Massey-Ferguson, Fendt, Valmet, Lilliston, etc. Meanwhile, I'd best return to my hay making — or is it making hay?

better than granite or bronze

By John Burnham

There are monuments of granite and plaques made of bronze.

Charles L. Rak and his wife, Mary Kidder Rak, chose something far more lasting — the ever fresh and eager countenance of a hopeful young person learning new skills in college.

Mr. and Mrs. Rak were pioneer Arizona ranchers. Both had attended college and recognized the value of higher education. When they died childless in 1958 they left their estate to The University of Arizona, for scholarships in Agriculture and Home Economics.

Was Western Author

Mrs. Rak, widely known for her lively and authentic books about the cowboy's west, died Jan. 25, 1958. Slightly more than three weeks later, on Feb. 17, her husband died.

An Associated Press story from

The author is editor of PROGRESSIVE AGRICULTURE.

Douglas in The Arizona Daily Star (Tucson) told of the bequest:

DOUGLAS, March 11 AP — The University of Arizona Tuesday was named sole beneficiary to the estate of former Douglas rancher Charles Rak.

Rak's will, admitted to probate in Cochise County Superior Court, left the estate for establishment of a Mary Kidder Rak scholarship fund. Rak died Feb. 17, a few weeks after the death of his wife.

The scholarship program, named in memory of Mrs. Rak, will be for deserving students in agriculture and home economics. The extent of the program will not be known until the estate is appraised.

Came Here in 1919

A native of Texas, Charles L. Rak worked as a cowpuncher in that state

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ONE OF THE MOST beautiful county courthouses in the Southwest is the Cochise County Courthouse (below) at Bisbee. Extending that good impression are the people who work in the building, all of whom were gracious, friendly and eagerly helpful to the reporter.

