

## NUTRITION

# Sweets From Sweets

Sweeter breakfast food, five kinds of candy, and an ice-cream powder can now be made from sweet potatoes by new process.

➤ BREAKFAST FOOD that Junior will eat without having to be coaxed with sugar, candy and cookies that you can let him have all he wants of because they are actually good for him, a dozen other things to eat, both tasty and wholesome—all from the South's old familiar standby, the sweet potato, through a new process developed at the Alabama Polytechnic Institute by Prof. L. M. Ware. The new products were demonstrated before a visiting group of food processors and distributors, together with a gallery of newspapermen. After sampling, a unanimous vote in favor was recorded.

The new products, which include three forms of breakfast food, five kinds of candy, and a sweet powder that can be used in ice cream, pies and as part of the mix in "malted," all bear the enticing trade-name of "Alayam." They are sweet with the natural sugar of the sweet potato; none has been added from any outside source. And they have a distinctive flavor of their own, that can be achieved only through Prof. Ware's process.

Businessmen in the group predict a large post-war market for "Alayam" products; their one question is, "When can we get some to sell?" Several who

have never liked sweet potatoes in any form (there are such benighted souls even in the South) have declared themselves converts after trying the new foods.

"Alayam" products resemble dehydrated foods in that most of the water has been taken out of them, but the process is not the same as orthodox dehydration. In that, shredded or diced vegetables are first blanched in hot water or steam, then have almost their entire water content removed by moderate dry heat. In Prof. Ware's process no water or steam touches the sweet potatoes, and their watery content is removed at an appreciably higher temperature and at relatively high humidity.

In dehydration, sweet potatoes lose a large part of their sugar—often as much as 40% to 50%. A cured sweet potato prepared and processed by the new method may run as high as 48% sugars in the final product.

Most of the food value of "Alayam" products is in their carbohydrates, notably sugars. To develop more balanced foods, other things can be blended. For example, if peanuts are added, the finished product will contain carbohydrates, fats, protein, minerals, vitamins A, B and C, and some riboflavin. Prof. Ware suggests that this rather complete food be given serious consideration as something worth using in Army field rations.

*Science News Letter, August 14, 1943*

## HISTOLOGY

## Muscle Tissue Studied Under Electron Microscope

➤ MUSCLE tissue of a warm-blooded animal has been studied and photographed under the electron microscope, to disclose details of structure hitherto unknown, or at best inferred from indirect studies with X-rays and other means. This work, done at the Swedish Royal Academy of Sciences in Stockholm, is reported in *Nature* (June 26) by Prof. Fritiof Sjöstrand.

Late in 1942, a group of American scientists in Philadelphia reported electron microscopic studies on muscle fiber,

## ● RADIO

Saturday, Aug. 21, 1:30 p.m., EWT

"Adventures in Science" with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. Martin C. Larrabee, of the Johnson Foundation, University of Pennsylvania and John G. Bergdoll, Jr., chief engineer of the York Corporation, will tell about medical research in stratosphere flying.

but this was the muscle of a cockroach. It is believed that the present Swedish research is the first carried out on a warm-blooded vertebrate. A guinea-pig supplied the muscle sample.

Since the streams of electrons that are used instead of light rays in the electron microscope must pass right through the specimen, the muscle had to be sliced exceedingly thin. By a technique combining freezing and drying, Prof. Sjöstrand was able to prepare sections that in places were only 20 millimicrons thick. A millimicron is a millionth of a millimeter or a twenty-five-millionth of an inch, so the areas shown in the photographs were slightly less than a millionth of an inch in thickness.

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## METALLURGY

## Blast Furnace in Mexico Will Increase Iron Supply

➤ A NEW blast furnace of 500 tons capacity just put into operation in Monterey, Mexico, by the National Iron Works was hailed by city officials, diplomatic representatives, scientists and others as an important advance in Mexican industry.

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