

problem of caries now available, and furthermore is one which is in step with current policies for the furtherance of public health.

"With prevalent improvement of children's diets, the seriousness of dental caries as a public health problem will decline to minor proportions."

Evidence that sugar content of the diet is probably of secondary importance will be presented in a forthcoming report by Dr. Boyd.

The diet of each child included in the studies was designed to be as near the nutritional ideal as possible. A strict regimen was possible because all of the children were under medical supervision because of diabetes.

Possibility that the disease itself had influenced the rate of decay was eliminated; amount of fluorine in the water, considered a factor in preventing decay, was also taken into consideration. Diet alone, the scientists finally concluded, influenced the rate of decay.

Public Health Service statistics indicate that the children in the area studied might expect to develop decay in two new tooth surfaces each year during the early teens, but the children observed by Dr. Boyd averaged only a fifth as much decay as expected on this basis.

Three of the children who were known non-conformists were omitted from consideration.

*Science News Letter, May 29, 1943*

storage. To be considered, such biscuits should keep well for two years in reasonably air-tight nonmetal containers and meet other Army requirements.

*Science News Letter, May 29, 1943*

#### NUTRITION

### Ten Shiploads of Pork Now Loaded on Three Ships

► DEHYDRATED PORK, following close on the heels of the development of dehydrated beef, is now going to the United Nations in large quantities, Herbert E. Robinson, assistant chief chemist of the Swift Research Laboratories, announced to the American Institute of Chemists meeting in Chicago.

Pork that would have filled 10 ships during the days of the first World War can now be reduced to two shiploads of dehydrated meat and a little more than a shipload of lard.

Savings in shipping space, producing the same effect as increased ship production, is possible through a process developed by the meat industry in cooperation with the U. S. Department of Agriculture.

Fresh cooked meat is ground fine, then dried slowly and evenly under carefully controlled temperatures. The finished product, in the form of light nut-brown granules, contains less than 10% moisture.

"When properly packed and vacuum sealed, it has good keeping qualities," Mr. Robinson stated. "It does not need refrigeration from time of packaging until used."

The meat is compressed during packing but resiliency of the tissues is not destroyed. When water is added later, the product has the same consistency as freshly cooked ground pork.

It can then be further prepared and served as patties, meat loaf or any other dish for which ground meat is used. The taste cannot readily be distinguished from that of freshly ground meat.

Mineral elements are reabsorbed from the meat juices during processing and temperature control keeps vitamin loss at a minimum. The high protein value is the same as in normally cooked meat, Mr. Robinson explained.

The lard is prepared in new war styles to meet Army and Navy specifications. It stays solid even at tropic heat and has a greater resistance to rancidity than ordinary lard.

*Science News Letter, May 29, 1943*

#### NUTRITION

## New Cereals for Army

Converted rice, proof against weevils, is delicious when cooked. Pre-mixed cereal with sugar and dried milk can be eaten dry, with water, or cooked.

► CONVERTED rice, too tough for the bugs but delicious when cooked for Army mess, was described to members of the American Association of Cereal Chemists meeting in St. Louis.

Before dehulling, the rice is given a steeping process that takes nutrients from the hulls and puts them inside. The starch gelatinizes, making hard finished grain after milling.

This converted rice has the keeping qualities of milled grain but retains the higher nutritive qualities of brown rice.

Declaring that the product deserves more attention, Maj. Virgil O. Wodicka of the Quartermaster Corps, explained that its hardness even discourages the weevils that often destroy Army cereal supplies.

In a laboratory test weevils were put in a three-room compartment to live for six weeks. Each section contained a different type of rice.

"At no time during this period," Maj. Wodicka stated, "were weevils seen working in the converted rice, whereas at all times, the weevils were present and thriving in the other two types."

Despite its hardness, the rice cooks up well and has the advantage of staying in separate particles instead of forming a gummy mass. The product is now being produced by one U. S. company under a British patent.

Another development just adopted for

Army rations is premixed cereal. This is a mixture of at least two cereal products with sugar and dried skim milk.

Eaten dry, mixed with cold water, or cooked, it's always palatable, Maj. Wodicka maintained. Because premixed cereal needs no cooking it can be used over a wider range of field conditions than the cereal it replaces.

Most forms of premix contain some added fat which keeps the sugar and milk powder from separating out. And surprisingly enough, this stable fat delays the rancidity of natural fats in the cereal.

With cold water, premix resembles the ready-to-eat breakfast foods. A component of the mixture rapidly takes up hot water, however, to give it the character of a typical cooked cereal.

Research is now aimed at developing a compressed product that will still reconstitute into an appetizing breakfast food.

Another method needing more research, Maj. Wodicka pointed out, is the use of a small amount of cereal in canned meats. It has been found that this prevents the separation of fat and moisture and makes the meat easier to eat and more appetizing for the soldier.

Inviting the cereal chemists to submit samples of new K ration biscuits, Maj. Wodicka admitted that one of those now in use develops an off-flavor on long