

NUTRITION

# Vitamin-Enriched Flour Goes Into Production

**When You Eat Bread, Rolls or Cake Made From It, You'll Get as Much Thiamin as From Stone-Ground Flour**

**Y**OU will soon be eating bread made with the new "enriched flour." The flour will be enriched either by new milling processes or by adding essential vitamins to purified white flour, to preserve your health, to keep you fitter and more vigorous.

This revolution in America's bread and flour is designed to bolster morale as well as health. It is about to come to your table.

The new vitamin "enriched flour" is being put into immediate production since the millers have been given the "go ahead" signal by the National Research Council Committee on Food and Nutrition.

This crucial step to give all Americans more strength for national defense and designed to rescue some 45,000,000 of our population from hungerless vitamin famine was announced in Washington.

In a few weeks the term "enriched flour" will be widely advertised and popularized. Grocers and bakers will be selling "enriched bread." We shall all be eating it.

At the christening party attended by national nutrition authorities, representatives of the American Medical Association, the milling industry, the bakers, and federal government authorities, it was decided to call the new flour "enriched flour." Bread made from it will be called "enriched bread." These titles are only semi-official, but it is believed they will be made official by the U. S. Food and Drug Administration, when it announces its decisions as to a title and definition for bread and flour containing extra vitamins and minerals.

When you eat enriched bread, or rolls, cake or other products made from enriched flour, you will be getting as much of the morale vitamin B<sub>1</sub>, or thiamin, as much of the pellagra-preventing nicotinic acid, and as much blood-building iron as your grandfather got from his stone-ground flour.

These three substances, thiamin, nicotinic acid and iron, in amounts to make the total content that of stone-ground flour from high vitamin wheat are now

known to be so close to the requirements of the new flour definition the Food and Drug Administration is still working on that millers need not hesitate to start immediate production of such a flour. Later, and indeed before very long, another B vitamin, riboflavin, can be added.

This tremendous gain in nourishing qualities will be made without sacrifice of flavor, color, or baking qualities and with scarcely any increase in cost. The revolution in flour can be accomplished in one of two ways. The two vitamins and the iron can be added to ordinary white flour. This will not make any change in taste or color.

At present it will increase the price

of flour by less than 50 cents a barrel, or about three cents for a 12-pound sack. This means an increase of less than two-tenths of a cent in the cost of a pound loaf of bread, which is so little that the retail price of enriched bread may be kept the same as that of ordinary bread.

Enriched flour may also be made, with the thiamin, nicotinic acid and iron content of stone-ground flour from high quality vitamin wheat, by modifications of the milling process. The enriched flour produced in this way will not be quite as snowy white as flour we know today. It may have a creamy color but ought to be as acceptable, at least for bread making, as any other. Enriched flour made in this way can be sold without any increase in price. Enriched bread also may be made by the use of special yeast.

Any significant increase in the price of the revolutionized bread and flour would defeat the purpose of the change because those who most need vitamins are those least able to spend more for food.

Well-to-do persons can stave off vitamin starvation by eating more liberally



**DR. RUSSELL M. WILDER**

*Of the staff of the Mayo Clinic, he is now chairman of the National Research Council's Committee on Food and Nutrition.*

of meats and vegetables rich in the vitamins which bread at present lacks. Or they can, on their doctor's advice, take vitamin chemicals in the form of pills.

For poor people, however, bread and cereals must be the mainstay of the diet for economic reasons. As for vitamin pills—it would cost nearly \$5.00 to buy at present drug store prices the amount of thiamin alone which can be had in enriched flour for less than 50 cents a barrel extra, and this extra 50 cents also pays for the nicotinic acid and iron that will be in the enriched flour.

As soon as enriched flour and bread become available, bakers and consumers will be urged by those guiding the nation's nutrition program to prefer this scientifically constructed loaf to formulas for bread which fail to provide all the nutritional elements called for in the specifications of the new flour.

Thiamin, nicotinic acid and iron are "musts" for the new, enriched bread and flour. Scientists recognize, however, that adding these three chemicals to bread is not the entire answer to the restoring of bread to its ancient estate as the staff of life. The coarse dark breads our grandfathers ate represented about 85% of the contents of the wheat berry. Our modern white flour represents only from 60 to 70%. Lost with this 30% to 40% of the wheat berry are not only thiamin, nicotinic acid and iron, but other members of the vitamin B complex.

Among these are riboflavin, pantothenic acid, vitamin B<sub>6</sub> and many others which have only recently been discovered. As these become available chemically, as thiamin and nicotinic acid now are, they will be added to enriched flour in the amounts considered desirable for the nation's welfare.

National defense needs have speeded the bread and flour revolution to a much earlier start than was expected. Millers had been developing this program, but were waiting for the U. S. Food and Drug Administration to announce a name and standards or definition, for the new flour. That announcement is anticipated in the very near future.

Meanwhile, the Nutrition Planning and Policy Committee of the federal government which is functioning in the national nutrition program with the advice of the National Research Council's committee on food and nutrition, has recognized the need for early action because of the emergency.

There is much reason to believe that a population receiving enough vitamins in its food is better able to withstand the stresses and strains of war and threats of war. This committee has urged the millers to start immediately making a flour which, as it becomes available, will provide an increase in vitamin consumption the country over. And the millers are moving full speed ahead.

*Science News Letter, February 8, 1941*

RADIO

## Television Broadcasting Not Limited to Wealthy

"TELEVISION broadcasting is by no means limited to those with millions to invest," Allen B. Du Mont, president of the Du Mont Laboratories, said in a statement on the present status of television.

"It is the writer's honest opinion," he declared, "that a good start in television broadcasting can be made for as little as \$25,000. And that figure can even be shaved if need be. For that sum one can obtain a 50-watt video and audio transmitting setup, which will prove adequate for the average city coverage. The transmitting aerial will have to be at least 250 feet high for satisfactory coverage of the desired area. The film pickup, camera and associated equipment will round out the requirements."

"At this early date almost any kind of program material will prove adequate. Just as the local weekly paper has a place in the community, despite the overwhelming bulk and appeal of the big metropolitan daily, so the local television station can find a place despite the millions that may be talked about for big metropolitan enterprises."

Defense demands are temporarily slowing the development of television, thinks Mr. Du Mont.

"The greatest progress in any one year was scored in this video form of broadcasting during the past twelve months," he stated. "And, were it not for the tremendous demands of our national defense emergency which must be necessarily first in importance over all other activities in the laboratory, factory and transmitting station, television might well be on its commercial way this year."

*Science News Letter, February 8, 1941*

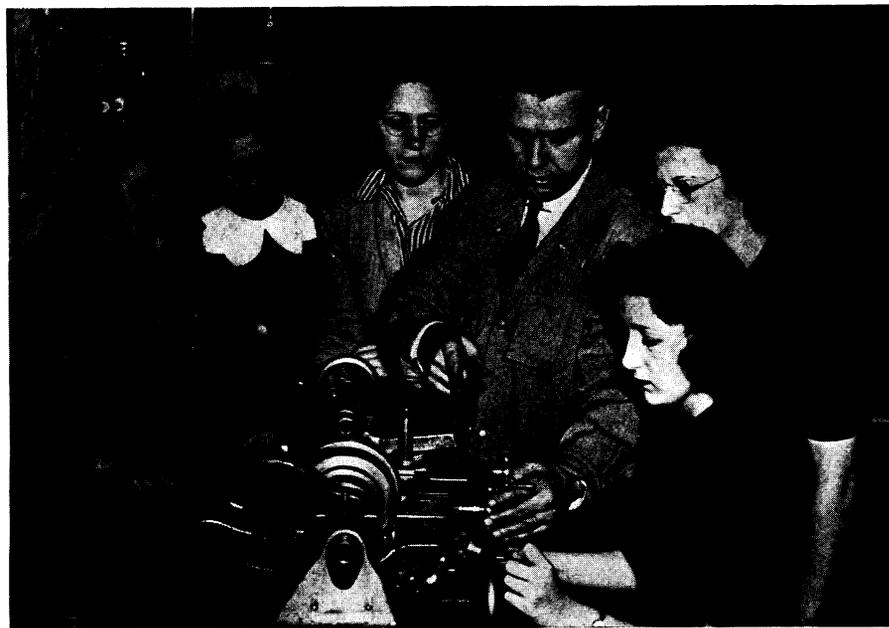
PSYCHOLOGY

## Uncle Sam Trains Girls To Make Shell Fuses

THE DEXTROUS fingers of girls are now being trained at Newton, Mass., by Uncle Sam for the delicate precision work of making time shell fuses.

Unique among the programs for training men for defense jobs is this WPA training course, the only one where women are being fitted for the defense industries. All those taking training at Newton are girls, and they have proved to be more adaptable than men at learning this particular kind of work.

Nearby watch factories, including the



**DEFENSE TRAINING**

*An instructor explains the mysteries of a lathe to one of the students in the WPA training course at Newton, Mass.*