

NUTRITION

Mold Spoilage Preventive

Sorbic acid, which can be used by the body like food, is effective in checking mold spoilage on foods. Estimate 10,000,000 pounds of cheese can thus be saved each year.

► A NEW chemical to protect foods from mold spoilage was announced at the meeting of the Institute of Food Technologists in Boston.

The chemical is sorbic acid. It is a fatty acid and can be used by the body like a food. Steps in its development and tests showing its safety were reported by Drs. H. W. Vahlteich, D. Melnick, F. H. Luckmann and C. M. Gooding of The Best Foods, Inc., Bayonne, N. J.; Drs. H. J. Deuel, Jr., and R. Alfin-Slater of the University of Southern California School of Medicine, Los Angeles, and Drs. D. P. Smith and N. Rollin of Milprint, Inc., West de Pere, Wis.

First use of this new food preservative will be to protect packaged cheese from mold. For this purpose it will be incorporated in the wrapper. Meats and pickles are other foods which may soon be protected by it.

Sorbic acid is colorless and in the amount used it is tasteless and odorless, and has no effect on the physical character of the cheese.

The U. S. Food and Drug Administration has ruled that it is safe to use for checking mold on cheese.

Dr. C. M. Gooding of Best Foods is the man chiefly responsible for discovery of this new food preservative. More than 10 years ago he started looking for such a chemical because sodium benzoate, until now the most popular anti-fungus and mold chemical for protecting foods, has been looked at askance by some. Reason for this is that benzoic acid checks fatty acid oxidation by liver enzymes and must be detoxified. Persons with poor liver function will have trouble detoxifying benzoic acid. Furthermore, in several food product environments, benzoate is not adequately effective, Dr. Vahlteich explained.

Dr. Gooding looked for a chemical structurally related to benzoic acid and also to a food component that the body could utilize as it does other foods. He found the answer in sorbic acid which, he says, is markedly superior to benzoic acid as an anti-mold chemical and still the nutritional equivalent of caproic acid, a fatty acid that is a natural component of butter.

Since sorbic acid is not available commercially, it was necessary to make it in the laboratory. Union Carbide and Carbon Corporation has developed a large scale method for its synthesis and it is available in quantity today.

Dr. F. A. Wolf of Duke University, in a study sponsored by the Quartermaster Food

and Container Institute for the Armed Forces, found that sorbic acid is especially effective in stopping mold on meat. Its ability to check yeasts and molds, while allowing normal fermentation in curing cucumbers, was discovered by Drs. G. F. Phillips and J. O. Mundt of the University of Tennessee.

The cheese industry has long needed a harmless effective material for inhibiting mold spoilage. With the advent of prepackaged sliced cheese, this need has "reached

almost desperate proportions," it was pointed out at the meeting.

It is estimated that 10,000,000 pounds of cheese per year can be saved by proper mold control.

Science News Letter, July 4, 1953

HISTORY

Yo, Ho, Ho! Scientists Hunt Spanish Treasure

► A HUNT for sunken treasure from a barnacled 18th century Spanish hulk will be under way in the Florida keys this July by Smithsonian Institution scientists.

The treasure they find may not be trunkful of doubloons, although such a find is a possibility. Priceless objects of historical interest from the romantic period of Spanish dominion in the Americas are the real treasures the scientists seek. Smithsonian scientists have already recovered many objects.

Science News Letter, July 4, 1953



TREASURE HUNT—Dr. Mendel L. Peterson of the history department of the Smithsonian Institution examines the breach of a coral-covered cannon found on the site of a Spanish ship which sank in a hurricane in the Florida Keys area in 1733. Scientists will explore there this summer.