

CHEMISTRY-NUTRITION

New Candies Are Created

Candymakers are striving for more flavor, better nutritional balance, and longer-lasting freshness, in the sweets being made in an unique experimental kitchen.

By MARTHA G. MORROW

► IF YOU make fudge or taffy at home, you may be surprised at what goes on in a unique candy kitchen in New Orleans. In this experimental kitchen:

Candy, made by experts, is frequently discarded because it does not taste as good as expected.

Some is considered worthless because it lacks that luscious, yummy look.

Much is put aside for months to see how long it will stay fresh.

Some is chemically analyzed as to protein, carbohydrate and vitamin content.

Little is eaten!

On those rare occasions when people are invited to sample the tempting goodies, they cannot just absent-mindedly enjoy the caramels, nougats, creams, jellies and hard candies offered. As members of a scientific taste panel, they must compare it with other batches as to flavor, smoothness and other qualities.

Soybean protein, yeast, sunflower-seed kernels and many other ingredients not used in today's candymaking are tried in this experimental kitchen in the hope that

sweets you eat in the future will be more flavorful, less likely to become stale and better balanced nutritionally.

This scientific study is designed specifically for those with a "sweet tooth." With protein, minerals and vitamins added to the present all-carbohydrate makeup of many candies, parents may some day feel free to permit their youngsters to eat generously of the sweets instead of vainly trying to stop them.

And while enjoying the goodies, both kids and grown-ups will provide an additional market for farm products. Peanuts, almonds, filberts and pecans, for instance, are used in increasing amounts as better varieties are developed by American farmers. New farm products are being tested to discover additional ingredients which will make more kinds of tasty candy to add to our list of delectable, desirable and health-giving foods.

Experimental batches of candy, five pounds at a time, are made in the New Orleans Laboratory, Agricultural Chemical Research Division of the Bureau of Agricultural and Industrial Chemistry, U. S. Department of Agriculture. A candymaker is supplied by the collaborating National Confectioners' Association, which represents several hundred candy manufacturers throughout the country.

Improved Candies

New and improved candies developed at the laboratory include:

Delicious chocolate-coated marshmallows with a raspberry center.

Jelly-type candy having a generous portion of apple flavor sealed into it.

Crunchy hard candy that carries a load of protein in addition to its sweetness.

Fondant-filled candies that keep fresh for a month.

To date several new recipes have been worked out to increase the protein, fat and vitamin content of your favorite candies, yet not adversely affect their looks, flavor or texture. You cannot buy these candies locally as yet for they are still in the laboratory stage. But in a few years you may find some of them at your confectioner.

Yeast, dry milk products and refined soy flour show the most promise to date as sources of protein. Extensive tests have been made to determine how much of each can be incorporated into caramels, creams and fudge without making them less tasty.

Dried edible yeast contains about 50% proteins and is a good source of thiamin

and other members of the vitamin B complex. One of the favorite candies from the experimental kitchen is a fluffy white nougat enriched with two percent of mildly flavored yeast.

Dry milk products not only put more protein into chocolate creams, bon bons and other candies, but they keep these candies fresh longer by increasing their moisture retention. Those that passed the taste-test include handroll creams containing from five to ten percent of whole milk solids, non-fat milk solids and buttermilk; caramels containing dried whey; and nougats incorporating whole milk and nonfat milk solids.

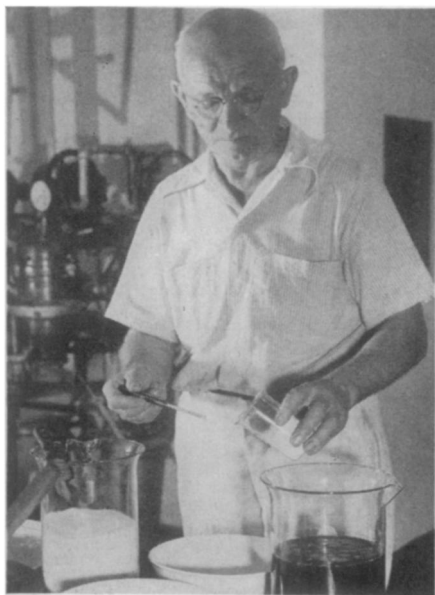
Soybean Protein

A highly refined, clean-colored soybean protein, one that is 95% pure protein, tasteless and odorless, has recently been made available. As much as five percent of this product can be worked into pulled hard taffy that ordinarily is an all-sugar candy. Delicious soft candies like nougats and cast creams can be made with protein contents as high as seven to eight percent.

Candy with an entirely new flavor, that of sorgo syrup, may some day be the rage. This syrup, produced from the sweet juice varieties of sorgo cane, has a flavor and aroma all its own and its mineral content is relatively high. Its delicate but persistent flavor is not perceptibly altered by substantial amounts of other enriching ingredients.

Almost 3,000,000,000 pounds of candy are produced in the United States each year. This is enough for each man, woman and child to eat a pound and a half every month. If the candy manufacturers have their way, these pounds will have a higher nutritional value while looking, tasting and costing the same. And the U. S. Department of Agriculture is blazing the trail to show how our own farm products and by-products can be used to make candy better.

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NUTRIENTS GUIDE CANDY-MAKERS—The protein content of candy is being measured here by Fred J. Fahs, a candymaker for the National Confectioners' Association.

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