



THIS Ice Cream BUSINESS



by
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Each year, Americans consume more than two billion quarts of a favorite dessert

WHEN THE ORDER to "Abandon ship!" had gone out over the loudspeaker of the crippled aircraft carrier *Lexington* in the South Pacific, the men aboard her interrupted preparations for leaving to eat ice cream! They scooped it into their helmets from cans hoisted from below deck, determined for once in their lives to get all the ice cream they could eat.

Such a thing could probably have happened only aboard an American vessel, for Americans have such an insatiable appetite for ice cream that in 1949 we ate our way through two and a quarter *billion* quarts, or one and a half billion dollars' worth.

Ice cream comes in more flavors than any food ever invented by Nature or man—more than 200 of them, including such eye openers as anise, root beer, sweet potato, avocado, pomegranate, carrot, water cress, and even menthol!

Yet, when the International Association of Ice Cream Manufacturers recently conducted a survey, they discovered that 45 per

cent of the amount sold was vanilla, with chocolate running a slow second at 17 per cent, and strawberry third with nine.

There are some remarkable variations in flavor preferences from state to state and city to city. For instance, in New Mexico strawberry outsells chocolate four to one. More vanilla—and less chocolate—is sold proportionately in Kansas City than in any other metropolis. And Philadelphia holds the record for the least proportionate amount of vanilla.

Strangely enough, ice cream is neither a new nor an American invention. As early as 62 A.D., the Roman emperor Nero sent fast runners to the mountains to bring back snow which was then flavored with honey, juices, and fruit, something like a fruit ice.

Some 1,200 years later, Marco Polo turned up in Italy with a recipe for a remarkable frozen delicacy which was enjoyed in China. People tried it out, and something like our sherbets was soon served in

many parts of Europe, eventually being improved by the addition of milk to resemble ice cream.

Americans always have showed evidence of overwhelming fondness for ice cream. Take George Washington, for instance. History records that between June and August, 1790, he ran up a \$200 bill at the ice-cream shop of a Mr. Cove on Chatham Street in New York City.

Dolly Madison probably did much to make ice cream famous by serving it at state occasions in the White House. And another woman, in 1846, turned it from a White House luxury to a dish within general reach. Up to that time, ice cream was made in "pot freezers," which meant it was beaten by hand and shaken up and down in a pan of salt and ice. Nancy Johnson dreamed up the hand-cranked freezer, a device still in occasional use.

TODAY'S GIGANTIC ice-cream industry really got its start when an enterprising man named Jacob Fussell calculated that people would eat a lot more ice cream if they didn't have to turn a crank. In 1851, he set up a plant in Baltimore and shortly thereafter one in Washington, D. C. Perhaps this early factory gave the District of Columbia the head start that still makes it tops in the nation in per capita production of ice cream—more than 29 quarts per person.

The big catch in early methods of manufacture was that the stuff had to be made in batches, which called for bulky equipment and slow processing. Then a Louisville inventor named Clarence Vogt got to tinkering with a curious contrivance. Its basic part was nothing more than a

piece of nickel pipe a yard long, but today the industry couldn't get along without it.

The ice-cream mix is put into one end of the tube, through which it is pumped under pressure. Actually, the walls of the tube are double, forming a jacket which contains a refrigerant. That makes the inside wall of the tube so cold that the mix freezes instantly and shoots out the other end in a matter of seconds, all ready for packaging.

When manufacturers started making ice cream by quick-freezing methods, they were faced with an uncomfortable discovery. Minute ice crystals somehow appeared in it. But they found that a tiny quantity of gelatin—as little as $\frac{1}{3}$ of one per cent of the total weight added to the mix—licked that problem.

Then there is the trick they perform with air. Yes, one ingredient of ice cream is plain ordinary air. The makers go to a lot of trouble to put it into their product; otherwise ice cream would be so hard you couldn't chip it with an ax.

Americans have shown a vast amount of ingenuity in thinking of new ways to eat ice cream—the soda, for instance. It happens that there was a kind of cream soda before ice cream got into the picture. It was made by mixing ordinary cream with carbonated water.

Apparently people were satisfied with it until one day in 1874, when Robert Green, who was selling sodas at the semicentennial celebration at Franklin Institute in Philadelphia, ran out of cream. In desperation, he sent a rush order to a near-by confectionery store for ice cream. His "substitute" soda became an overnight sensation. Few

persons left the Fair without trying one, and the soda was soon a nation-wide institution.

The sundae got its start in Evanston, Illinois, when the city fathers passed an ordinance forbidding the sale of soda on the Sabbath. Thereupon, ingenious fountain proprietors started featuring "Sunday Sodas"—a soda without the soda. With the spelling changed to "sundae," the concoction became nationally popular.

Quite appropriately, a youngster played a part in one of ice cream's most fabulous success stories. The Eskimo Pie turned up in 1922, and soon hundreds of people were at work trying to improve this chocolate-covered bar. Among them was Harry Burt, owner of an ice-cream factory in Youngstown, Ohio.

One day he invited his children to try a new formula. They pronounced it excellent, but "awfully messy." Then young Harry Burt, Jr., had an idea.

"Why not put them on sticks, Dad, like suckers?" he asked.

Burt didn't have an answer to that, except for the obvious one: "Chances are they wouldn't stick to the sticks." Nevertheless he hus-

tled to the factory and tried thrusting sticks into the bars. Later, when he reached into the freezer to see how well the sticks were holding, he found that it took a mighty pull to get a stick out of its bar, because ice crystals had formed on the sticks, creating a powerful bond between handle and bar.

Guaranteed to make any ice-cream expert launch into a lecture on nutrition is the assertion that ice cream is fattening. He will tell you, for instance, that a single baked apple has 54 more calories than an average 1/6th quart of ice cream!

On the other hand, every dish of ice cream contains a generous amount of calcium, phosphorus, riboflavin, thiamine, vitamin A, and niacin; and the U. S. Department of Agriculture classes ice cream along with milk and cheese as a basic food.

Curiously enough, however, the industry's efforts to tell the story of ice cream in terms of food value have never succeeded as well as appeals to taste, thus leaving the manufacturers in the unusual position of making and selling a highly nutritious food that people eat in quantity simply because they like it.