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Classification of Ice Cream and Related Frozen Products

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Classification of Ice Cream and Related Frozen Products

M. MORTENSEN

INTRODUCTION

Up to the present time the books which have been written on ice cream making have consisted mainly of recipes. Although the most of these have been most excellent and of inestimable value to men starting in the ice cream business with only limited experience, a large book of recipes is always a burden to the maker. It would seem advantageous to have the various frozen products classified according to materials used in their composition. Such a classification should be of help to the ice cream maker and materially reduce the size of the volume of recipes.

FORMER CLASSIFICATION

By comparing classifications and names of the various frozen products as published by our most up-to-date writers on ice cream making and domestic science, the student is likely to be confused, as the various authors use somewhat different classifications and names for the same ice creams.

A book entitled "Ice Cream and Cake," by an American, distinguishes between Neapolitan and Philadelphia ice creams, the former containing eggs, while the latter are made without eggs. The same author also defines water ices as being compounds of the juice of fruit, sugar and water.

For souffles the following recipes are given:

Cream Souffle—
1 qt. orange juice,
1 oz. gelatine,
1 qt. double cream,
2 lbs. sugar,
8 yolks of eggs.

Water Souffle—
1 qt. pineapple juice,
1 qt. water,
12 eggs,
2 lbs. sugar.

For bisque the same author gives the following formula:
3 qts. cream,
1½ lbs. sugar,
4 oz. dry sponge cake, macaroons and meringues mixed.
1 tablespoonful extract of nectarine.
The author of a book entitled "Ice Cream and Candy Makers Factory Guide" classifies ice cream as follows:

1. "Neapolitan" includes all varieties in which cream and eggs and sometimes milk are used, and which therefore requires cooking. Sometimes called "Delmonico" or "New York."
2. "Philadelphia" includes all various creams made of pure cream without eggs.
3. "Plain ice cream." Under this heading you will find all the inexpensive mixtures of both cream and milk with other ingredients to enrich and give "texture" to the product.
4. "Gelatine ice cream," containing a list of formulas giving a large proportion of milk.
5. "Frozen custards," made from milk only, with eggs.
7. "Commercial ice creams," these are special factory formulas for large makers.
8. "Brick creams."

The same author writes:

"Water ices consist of fruit juices diluted, sweetened and frozen same as ice cream.
"Granites are water ices only half frozen without much stirring, and have a rough icy texture.
"Glace and frappe are terms used somewhat loosely by manufacturers, sometimes applied to chilled or half frozen compounds.
"Sherbets are a mock cream ice and are made with white of egg or gelatine, and are frozen like ice cream.
"Sorbet is the French term for sherbet."

In the foregoing classification Neapolitan and Philadelphia creams constitute the main classification and all others might be classed under these two special headings. The definition of plain ice cream, gelatine ice cream and commercial ice creams is hardly specific enough to prevent confusion. The three will be considered identical by the manufacturer.

Miss Parloas in her book "Kitchen Companion" gives the following definitions:

"Philadelphia ice cream, a composition of pure cream, sugar and flavor, the cream may be rich or thin, but milk of poor quality will not answer."

Neapolitan ice cream is described as an ice cream containing eggs.

"Mousse is a dish that is made with whipped cream and frozen without being stirred."

The authors so far quoted have all agreed that Philadelphia cream is made without eggs while Neapolitan cream is made with eggs. The following authors differ more or less from the former:

Goodholmes in "Domestic Cyclopaedia" gives a formula for making Philadelphia ice cream in which eggs are included.

Mrs. Linda Hull Larned in "The Hostess of Today" distinguishes between creams stirred while freezing and creams frozen without stirring. Under the first heading is included

* Published by the Horizontal Freezer Company, Chicago.
French ice cream containing egg yolks and Philadelphia ice cream made without eggs.

The same author writes:

"Sherbet, sometimes called sorbet, is a frozen punch or ice. "Frappes are soft water ices with or without cream. "Mousse is made from whipped cream. "Parfait is made from whipped cream and eggs."

"The Boston Cooking School Cook Book" classifies frozen products as follows:

"Philadelphia ice cream, thin cream sweetened, flavored and frozen. "Plain ice cream, custard foundation, thin cream and flavoring. "Neapolitan or harlequin ice cream, two kinds of ice cream and an ice moulded in a brick. "Mousse, heavy cream, beaten until stiff, sweetened, flavored, placed in a mould, packed in equal parts salt and ice and allowed to stand three hours, or whip from thin cream may be used folded into a mixture containing a small quantity of gelatine. "Water ice, fruit juice sweetened, diluted with water, and frozen. "Sherbet, water ice to which a small quantity of dissolved gelatine or beaten whites of eggs is added. "Frappe, water ice frozen to consistency of mush. "Punch, water ice to which is added spirit or spice. "Sorbet, strictly speaking, frozen punch. The name is often given to a water ice where several kinds of fruit are used."

Mrs. Rorer's "New Cook Book" defines the various frozen products as follows:

"Sherbet is a water ice stirred rapidly during the freezing. "Sorbet is a stirred water ice with one egg meringue added after the mixture is frozen. "Frappes is much the same as water ice partly frozen like wet snow. "Parfait is frozen whipped cream. "Mousse is the same as parfait."

The "Franco-American Cookery Book" defines as Neapolitan ice cream, "a brick of three layers of ices such as orange, vanilla and pistachio placed one on the other."

In the same book is found a recipe for parfait au cafe. It gives the ingredients of this particular parfait as consisting of coffee, sugar, egg yolks and whipped cream.

Mary Ronalds in the "Century Cook Book" defines frozen products as follows:

"Philadelphia ice cream, cream sweetened, flavored and stirred while freezing. "French ice creams are custards of different degrees of richness stirred while freezing. "Parfaits, bisquits, and mousses, are whipped creams with or without eggs frozen without stirring." It is recommended that for bisquit some chopped browned almonds and some macaroons rolled to crumbs be sprinkled over the top.
“Neapolitan ice cream, cream moulded in brick from three layers of different flavors and colors.

"Water ices are fruit juices sweetened with sugar syrup stirred while freezing.

"Punches and sherbets are water ices with liquors mixed with them either before or after they are frozen."

Mrs. Mary J. Lincoln and Anna Barrows in the “Home Science Cook Book” define frozen pudding as an ice cream or custard highly flavored, and containing preserved fruits or nuts.

Val Miller in his book entitled ‘Standard Recipes for Ice Cream Makers’ gives merely a number of recipes without making any attempt to classify them.

The United States Pure Food law gives the following definition of ice creams:

1. Ice cream is a frozen product made from cream and sugar, with or without a natural flavoring, and contains not less than 14 per cent of milk fat.

2. Fruit ice cream is a frozen product made from cream, sugar, and sound, clean, mature fruits, and contains not less than 12 per cent of milk fat.

3. Nut ice cream is a frozen product made from cream, sugar, and sound, non-rancid nuts, and contains not less than 12 per cent of milk fat.”

It will be noted from the foregoing that the most authors agree about what is called Philadelphia creams. Yet the simplest and best known name for such creams both to the manufacturer and to the consumer is “plain ice cream.”

Neapolitan ice creams are by some authors considered to be creams containing eggs. Such creams are by others called parfait, or some manufacturers call them fancy ice creams. Either of these names will be more satisfactory than the name Neapolitan, as the latter is used by several authors and by most manufacturers for a brick of ice cream composed of several flavors, usually three. Parfait is usually made commercially from rich cream, egg yolks, sugar, flavoring material, also nuts or fruit. It is usually frozen in the ice cream freezer, as it thus freezes smoother than when packed to freeze as a whipped cream.

Bisque ice cream seems to be known to writers as well as to manufacturers as a plain cream to which is added bread products, such as finely ground macaroons, lady fingers, sponge cake, etc.

No confusion seems to exist as to the meaning of the name mousse.

The definition of a frozen pudding by Mrs. Mary J. Lincoln and Anna Barrows is the most satisfactory definition that could be given.
Two groups of frozen products have been invented at this station. We have given one of the groups the name "aufait." The other group is called "lacto."

While the writer was engaged in commercial work in Portland, Ore., a lady suggested that he prepare a special brick of ice cream with a layer of figs. She also suggested the name "aufait." From that idea, we have, during the past year, at this station made a variety of ice cream bricks composed of layers of various preserved fruits and ice creams and sherbets.

CLASSIFICATION ADOPTED AT IOWA EXPERIMENT STATION

Considering the work of former writers as well as names used by commercial men, the following classification was worked out by the station:

I. Plain Ice Creams.
II. Nut Ice Creams.
III. Fruit Ice Creams.
IV. Bisque Ice Creams.
V. Parfaits.
VI. Mousses.
VII. Puddings.
VIII. Aufaits.
IX. Lactos.
X. Ices.

1. Sherbets.
3. Frappes.
4. Punches.
5. Souffles.

EXPLANATIONS AND FORMULAS

I. Plain ice cream is a frozen product made from cream and sugar with or without a natural flavoring.

Formulas are given for making ten gallons of finished ice cream.

**Vanilla Ice Cream**—
5 gallons 25 per cent cream
8 lbs. sugar
4 oz. vanilla extract

**Chocolate Ice Cream**—
5 gallons cream
10 lbs. sugar
1 1/2 lbs. bitter chocolate
4 oz. vanilla extract

**Maple Ice Cream**—
5 gallons 25 per cent cream
6 lbs. cane sugar
2 lbs. maple sugar
2 oz. caramel
4 oz. vanilla extract
Caramel Ice Cream—
5 gallons 25 per cent cream
8 lbs. sugar
12 oz. caramel
4 oz. vanilla extract

Coffee Ice Cream—
5 gallons 25 per cent cream
8 lbs. cane sugar
Extract from 1 lb. coffee

Mint Ice Cream—
5 gallons 25 per cent cream
8 lbs. cane sugar
1 pt. concentrated Creme de Menthe syrup
Few drops green coloring

II. Nut ice cream is a frozen product made from cream and sugar and sound non-rancid nuts.

Walnut Ice Cream—
5 gallons 25 per cent cream
8 lbs. cane sugar
4 oz. vanilla extract
4 lbs. of walnut meats

According to this general formula the following nut ice creams may be prepared by substituting different kinds of nut meats.

- Chestnut Ice Cream
- Filbert Ice Cream
- Hazelnut Ice Cream
- Pecan Ice Cream
- Peanut Ice Cream
- Almond Ice Cream
- Pistachio Ice Cream

At times pistachio ice cream is made from oil of pistachio instead of from the nuts. If thus prepared, it will come under the head of plain ice creams.

III. Fruit ice cream is a frozen product made from cream, sugar and sound, clean, mature fruits.

Strawberry Ice Cream—
5 gallons 25 per cent cream
8 lbs. sugar
½ gallon crushed strawberries

Employing the same formula the following creams may be made by merely substituting fruits and berries for the strawberries. The amount of sugar may be varied according to the acidity of the fruit.

- Pineapple Ice Cream
- Raspberry Ice Cream
- Cherry Ice Cream
- Peach Ice Cream
- Apricot Ice Cream
- Currant Ice Cream
- Grape Ice Cream
- Cranberry Ice Cream
Preparation of lemon and orange ice creams cannot be included under this general rule. These creams may be prepared as follows:

Lemon Ice Cream—
- 5 gallons 25 per cent cream
- 10 lbs. sugar
- 2 pts. lemon juice
- 1 pt. orange juice

Orange Ice Cream—
- 5 gallons 25 per cent cream
- 10 lbs. sugar
- 2 qts. orange juice
- ½ pt. lemon juice

IV. Bisque ice cream is a frozen product made from cream, sugar and bread products, marshmallows or other confections, with or without other natural flavoring.

Macaroon Ice Cream—
- 5 gallons 25 per cent cream
- 8 lbs. sugar
- 4 oz. vanilla extract
- 5 lbs. ground macaroons

From this formula we can make:
- Grape Nut Ice Cream
- Nabisco Ice Cream
- Sponge Cake Ice Cream
- Marshmallow Ice Cream

V. Parfait is a frozen product made from cream, sugar and egg yolks with or without nuts or fruits and other natural flavoring.

Walnut Parfait—
- 4 gallons 30 per cent cream
- Yolks of 10 dozen eggs
- 14 lbs. sugar
- 4 oz. vanilla extract
- 4 lbs. ground walnut meats

From this formula by substituting the nut meats we can make:
- Filbert Parfait
- Almond Parfait
- Peanut Parfait
- Hazelnut Parfait, etc.

By substituting the same proportion of fruits as are used for fruit ice creams, for the vanilla extract and nut meats, fruit parfaits such as strawberry, raspberry and cherry parfaits and others may be prepared.

Coffee Parfait—
- 4 gallons 30 per cent cream
- Yolks of 10 dozen eggs
- 14 lbs. sugar
- Extract from 1 lb. coffee
Maple Parfait—
4 gallons 30 per cent cream
Yolks of 10 dozen eggs
4 lbs. maple sugar
10 lbs. cane sugar
2 oz. caramel paste

Tutti Frutti—
4 gallons 30 per cent cream
Yolks of 10 dozen eggs
14 lbs. cane sugar
4 oz. vanilla extract
3 lbs. candied cherries
3 lbs. candied assorted fruit

VI. Mousse is a frozen whipped cream to which sugar and natural flavoring has been added.

Cranberry Mousse—
2 gallons 30 per cent cream
4 lbs. cane sugar
1 qt. cranberry juice
¼ pt. lemon juice

From the same formula combinations may be made with various other fruit juices and natural flavors, such as coffee, vanilla, maple, caramel, pistachio, etc.

Sultana roll, as indicated by the name, is made in a round mould. The center of the mould is filled with tutti frutti, and the outside with pistachio mousse.

VII. Pudding is a product made from cream or milk, with sugar, eggs, nuts and fruits, highly flavored.

Nesselrode Pudding—
3 gallons 30 per cent cream
10 dozen eggs
10 lbs. cane sugar
4 oz. vanilla extract
6 lbs. candied cherries and assorted fruits
4 lbs. raisins
4 lbs. walnut meats
4 lbs. filbert meats

Manhattan Pudding—
3 gallons 30 per cent cream
10 dozen eggs
12 lbs. sugar
2 qts. orange juice
1 pt. lemon juice
4 lbs. walnut meats
4 lbs. pecan meats
4 lbs. cherries and assorted fruits

Plum Pudding—
3 gallons 30 per cent cream
10 dozen eggs
10 lbs sugar
2½ lbs. chocolate
4 lbs. cherries and assorted fruits
2 lbs. raisins
2 lbs. figs
1 lb. walnut meats
3 tablespoonfuls ground cinnamon
½ teaspoonful ground cloves

VIII. Aufait is a brick cream consisting of layers of one or more kinds of cream with solid layers of frozen fruits.

Fig aufait may be made from three layers of cream of various flavors with two layers of whole or sliced preserved figs. It is most satisfactory to slice the figs lengthwise in halves. The following illustration shows how a very delicious brick of fig aufait may be made.

Other aufaits may be made from a variety of preserved fruits and berries and combined with different creams.

IX. Lacto is a product manufactured from skimmed or whole sour milk, eggs and sugar, with or without natural flavoring.

Formulas for lactos will be found in Bulletin No. 118 published by this station.

X. Ices are frozen products made from water or sweet skimmed or whole milk, and sugar, with or without eggs, fruit juices or other natural flavoring.

Ices may for convenience be divided into sherbets, milk sherbets, frappes, punches and souffles.

1. A sherbet is an ice made from water, sugar, egg albumen and natural flavoring, and frozen to the consistency of ice cream.

Lemon Sherbet—
6 gallons water
Whites of 2 dozen eggs
24 lbs. sugar
6 pts. lemon juice
1½ pts. orange juice
Water, eggs and sugar will be the same for other sherbets; the flavoring material only will change.

Orange Sherbet—
   6 qts. orange juice
   1 pt. lemon juice

Pineapple Sherbet—
   1 gallon crushed pineapple
   1 qt. lemon

Peach Sherbet—
   6 qts. peach pulp

Cherry Sherbet—
   6 qts. cherry juice
   1 pt. lemon juice

Ginger Sherbet—
   4 pts. ginger syrup
   4 lbs. chopped preserved ginger
   4 pts. lemon juice

Strawberry Sherbet—
   6 qts. strawberry juice
   1 pt. lemon juice

2. Milk sherbet is an ice made from sweet skimmed or whole milk with egg albumen, sugar and natural flavoring, frozen to the consistency of ice cream.

Pineapple Milk Sherbet—
   6 gallons milk
   20 lbs. sugar
   Whites of 2 dozen eggs
   1 gallon pineapple pulp
   1 qt. lemon juice

Milk sherbets of various flavors may be prepared according to above formula by using the same amount of flavoring material as is used for plain sherbets.

3. Frappe is an ice consisting of water, sugar and natural flavoring and frozen to a soft semi-frozen consistency. Same formulas as are given for sherbets will answer for frappe by omitting the egg albumen.

4. Punch is a sherbet flavored with liquors, or highly flavored with fruit juices and spice.

5. Souffle is an ice made from water, eggs, sugar and flavoring material. It differs from sherbets mainly in that it contains the whole egg.

Pineapple Souffle—
   1½ gallons water
   4 dozen eggs
   12 lbs. sugar
   1 gallon grated pineapple
   1 qt. lemon juice
Following the same formula, souffles of other flavors can be made.

The formulas presented have been given mainly for the purpose of making clear the difference between the various groups. Numerous other formulas may be prepared based on the same general outline.