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Fruit Purees
Michigan State University Cooperative Extension Service
Circular Bulletin Series
Pauline Paul, Foods and Nutrition
Issued August 1946
18 pages

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# Fruit Purees 

By PAULINE PAUL



Purees made from Michigan-grown fruit. They are (beginning at the top and proceeding clockwise) rhubarb, blueberry, sour cherry, plum, strawberry, tomato, and grape. Peach is in the center.

MICHIGAN STATE COLLEGE AGRICULTURAL EXPERIMENT STATION<br>SECTION OF HOME ECONOMICS EAST LANSING

# Fruit Purees* 

By PAULINE PAUL**

IN the summer, when fruits are available in large quantities, it is sometimes difficult to preserve all that we would like to have for the winter months. Also, there are often local surpluses of dead-ripe fruit which cannot be marketed through the regular channels because it will not stand handling; or, if it is marketed, it must be sold at once, often at low prices, to avoid loss from spoilage. Such fruit, if preserved promptly, will yield an excellent product, rich in natural fruit flavor and sweetness.

Purees offer a fine method of preserving excess or dead-ripe fruit, especially fruit that is too soft to withstand the processing involved in canning or freezing. This is particularly true of berries, peaches, plums, and apricots, and, to a somewhat less degree, of cherries and grapes. In addition, certain varieties of many fruits, such as the Golden Jubilee and Oriole peaches, are too soft to be well suited to canning but can be preserved to advantage in the form of purees.

Fruit purees are easy to prepare and simple to preserve by freezing. The fruit is washed and trimmed, cooked for a short time, put through a sieve or food chopper, mixed with a small amount of sugar, packaged and frozen. Then, during the winter months, the puree can be defrosted and used for delicious pies, puddings, frostings, fillings and other dishes.

A short heating or cooking period is necessary in most cases in order to preserve the color and flavor of the product. Usually, purees made of raw fruit tend to turn brown and develop off-flavors during storage. However, strawberries are an exception, and retain their natural color and flavor better if not cooked.

The puree can be prepared in either of two ways. During the cooking, some juice will separate from the fruit. If desired, this juice

[^0]may be drained off and canned or frozen for use in beverages. Then the solid portion is sieved and put up as puree. All the juice may be mixed with the solids and the whole packaged as puree. Mixing the juice with the solids will give a thinner puree, but either method gives a product rich in fruit flavor to enliven winter meals.

The sieving operation, to actually reduce the fruit to puree, can be done in many ways. A conical sieve with a wooden pin to mash the material is very convenient. So, too, is the Foley Food Mill. A potato-ricer or ordinary sieve and spoon also may be used. Any of these devices will separate the pulp from skins, pits and stems, and thus simplify the preliminary preparation of the fruit. If desired, the cooked fruit may be put through a food chopper. In this case, the inedible portions must be removed before the fruit is cooked.


Fig. 1 - Equipment and packaging materials for preparing and packing fruit purees for freezing: (front row, left to right) food grinder, potato ricer, rectangular cartons with cellophane bag liners; (back row, left to right) conical sieve and wooden pin, Foley Food Mill, sieve and wooden spoon, rectangular carton set up showing rack and funnel for filling, heavily waxed cardboard tubs with slip-in lids.


Fig. 2 - Three steps in preparing puree: crushing the fruit before heating; forcing the cooked fruit through a sieve; pouring the cooled, sweetened puree into cartons for freezing.

The purees can be frozen unsweetened, or mixed with a small amount of sugar before packaging. The details are given in the table which follows. Most persons prefer those which have a little sugar added, as tests have shown that sugar helps to preserve the natural color and flavor of the fruit. The purees should be packaged in air-tight containers which will not leak. Heavily-waxed cardboard cartons are ideal for this purpose; or the rectangular cartons with cellophane-bag liners, such as are used for freezing vegetables, may be utilized. Be sure to cool the puree thoroughly before packaging it. The packages should be frozen as soon as possible after preparation and stored at $0^{\circ} \mathrm{F}$. until you wish to use them. They may be stored either in the community locker plant, or in your home freezer. Pint or pound containers may be defrosted by letting the closed container stand overnight in the refrigerator, 2 to 3 hours at room temperature, or 45 minutes to an hour in a pan of cold water. Once defrosted, they may be kept for 2 or 3 days in the refrigerator if necessary, but it is better to freeze in small packages and use promptly after thawing.

Fruit purees may be used in many ways. They make excellent pies, puddings and cobblers. They form a flavorful base for 7 -minute frosting. Fruit whip with custard sauce is an attractive and appetizing dessert. Purees contribute flavor and color to ice creams, sherbets and milk shakes, and can be used with vanilla ice cream to make fruit ripple. Sweet rolls or breakfast rings may be filled with sweetened puree instead of jam. Or the puree can be cooked with sugar to make small batches of jam as needed. These purees can also be substituted for crushed or chopped fruit in many of your own treasured recipes. Most of the purees, especially those made of fruits such as plums or Concord-type grapes, are almost too rich in flavor to be eaten straight as a sauce, and so lend themselves well to combination with other foods.

Studies on the retention of vitamin $C$ in these products indicate that there is a slight loss during preparation of the puree, but little if any loss during freezing and frozen storage. The loss during preparation probably occurs during the cooking and sieving operation, and in general seems to be no greater than would be found in any cooking process.

## Details of Preparation of Purees

| Fruit | Preparation of Fruit | Cooking | Sugar | Yield |
| :---: | :---: | :---: | :---: | :---: |
| Cherries, sour | Wash and stem. Pit if they are to be put through the food chopper. | Crush to start juice flowing. Bring to full boil. Puree. | Add 1 cup sugar to 6 cups puree. | 1 lb . fruit yields about $2 / 3 \mathrm{lb}$. ( $11 / 3$ cups) puree. |
| Berries: <br> Blueberries Black Raspberries | Wash and pick over. Remove any stems. | Crush with potato masher or fork. Add $1 / 2$ cup water for each 2 pounds of fruit. Bring to full boil. Puree. | Add 1 cup sugar to 6 to 8 cups puree. | Approx. 1 lb . (2 cups) of puree from each pound of raw fruit. |
| Plums | W ash, cut in half and remove pit. | Steam for 7 min . or add 1 cup water to 4 lb . fruit, bring to boil and cook 2 min. Puree. | Add 1 cup sugar to 8 cups puree. | 2 lb. fruit yield about $11 / 2 \mathrm{lb}$. (3 cups) puree. |
| Peaches | W ash, cut in half and remove pits. | Steam 7 min. Sieve. Or peaches may be dipped in boiling water, peeled, halved and pitted, then cooked 3 min. in boiling sugar syrup and pureed. The syrup should be saved for use in canned or freezing halved or sliced fruit. | Add 1 cup sugar to 8 cups puree. | 3 lb. fruit yield approximately 2 lb. (4 cups) puree |

## Details of Preparation of Purees (Continu

| Fruit | Preparation of Fruit | Cooking | Sugar | Yield |
| :---: | :---: | :---: | :---: | :---: |
| Grapes, Concord type | Wash, stem if desired. | Crush with potato masher to start juice flowing. Bring to boil and cook 2 min . Drain off juice, sieve the remainder. Can or freeze juice separately for beverage. | Add 1 cup sugarto 8 cups puree. | 4 lbs. of grapes (unstemmed) will yield about 1 lb . of puree and 2 lbs . of juice. |
| Rhubarb | Wash, cut in 1 inch pieces. | Add 1 cup water to 2 pounds rhubarb, bring to boil, cook 2 minutes. Sieve or grind. | Add 1 cup sugarto 6 cups puree. | Approx. 1 lb . (2 cups) of puree from each pound of pre pared fruit. |
| Strawberries | Wash and hull. Crush or grind raw berries. Do not cook. |  | Add 1 cup sugarto 6 cups puree. | 1 lb . raw berries yields approximate ly 1 pound of puree |
| Tomatoes | W a sh, remove stems and any bad spots, cut in large chunks. | Bring to a boil, cook 3 minutes, sieve. | Add 1 teaspoon salt to each 2 cups of puree. | 4 lbs. of tomatoe yields about 3 lbs of whole puree, 2 lbs . of juice plus 1 lb . of puree, i the juice is sepa rated from the soli portion. |

## Recipes

## FRUIT-FILLED COFFEE CAKES

| 2 | cakes yeast |  |
| ---: | :--- | :--- |
| $1 / 4$ | c. | lukewarm water |
| 1 | c. | milk |
| $1 / 4$ | c. | melted shortening |

$1 / 2$ c. sugar<br>1 tsp. salt<br>2 eggs, beaten<br>$51 / 2$ to 6 c . sifted flour

Soften yeast in lukewarm water. Scald milk, add salt, sugar and shortening, and cool to lukewarm. Add 2 cups of flour, beat well. Add softened yeast and eggs, blend thoroughly. Add remaining flour to make a soft dough. Turn out on a lightly floured board and knead until satiny. Place in lightly greased bowl, cover and let rise in warm place until doubled in bulk. Punch down. Divide dough in half. Roll one-half into rectangle $8 \times 16$ inches. Fit one end into bottom of greased $8 \times 8 \times 2$-inch pan, spread with filling, fold other end over. Roll other half of dough into $8 \times 16$-inch rectangle. Spread with filling, roll like a jelly roll, seal edges by pinching together. Coil into bottom of $8 \times 4 \times 3$-inch bread pan. Slash top in several places. Brush with melted butter. Let rise again until doubled in bulk. Bake in moderate oven ( $375^{\circ}$ F.) 30 to 40 minutes, or until done.

## Fillings:

Peach: $1 / 4 \mathrm{c}$. peach puree, 2 tb . sugar, 2 tsp. grated orange rind, $1 / 4 \mathrm{c}$. nuts, $1 / 8$ tsp. cinnamon.
Plum: $1 / 4$ c. plum puree, 1 tsp. grated lemon rind, $1 / 4 \mathrm{c}$. nuts, 2 tb . sugar, $1 / 8$ tsp. nutmeg.
Grape: $1 / 4$ c. grape puree, $1 / 8$ tsp. cloves, 2 tb. raisins, 2 tb. sugar.
Black Raspberry: $1 / 4$ c. puree.
Sour Cherry: $1 / 4$ c. puree, 2 tb. sugar.
Strawberry: $1 / 4$ c. puree, 1 tb. sugar, $1 / 8$ tsp. grated lemon rind, dash of nutmeg.


Fig. 3 - Breads to delight the eye as well as the taste: (left) rhubarb pin wheel bread, plum four-leaf clovers, strawberry pin wheels (in baking dish), cherry baskets, and (right) peach-layered bread.

## FRUIT ROLLS

Use same recipe as for Fruit-filled Coffee Cakes. Divide dough into thirds.

Four-leafed clovers: Place a little sweetened puree in the bottom of greased muffin tins. Make small balls of dough and place 4 in each muffin tin. Pour a little more puree on top of each one. Let rise and bake.

Baskets: Roll pieces of dough between the hands to form long thin strands. Coil each strand into the bottom and up the sides of a greased muffin tin. Place puree in center. Let rise and bake.

Pin wheels: Place puree mixture in bottom of greased shallow baking pan. Roll dough out into rectangle, brush with melted shortening, sprinkle with sugar, and roll like a jelly roll. Cut roll in slices 1 inch thick. Place slices cut side down in fruit mixture, let rise and bake.

## TOMATO JUICE

1 c. tomato puree
$1 / 4$ c. water

Salt and pepper
$1 / 2$ tsp. grated onion

Mix thoroughly and serve iced. Makes $11 / 4$ cups juice.
The amount of water to puree may be varied according to taste. Other seasonings may be added, such as lemon juice, Worcestershire sauce, mace, curry powder or tabasco sauce.

## TOMATO SAUCE

| $1 / 4$ | c. chopped onion |
| :--- | :--- |
| 1 | clove garlic, sliced |
| $1 / 2$ | c. chopped green pepper |
| $1 / 4$ | c. shortening |
| 2 | c. tomato puree |
| 1 | c. water |

Dash of cayenne
1 tb. Worcestershire sauce
$1 / 4$ tsp. celery salt
$1 / 2$ tsp. salt
2 tsp. sugar

Saute onion, garlic and green pepper in shortening until lightly browned. Add remaining ingredients and cook gently 1 hour. Put through a sieve and reheat before serving. Makes about 2 cups sauce.

May be served on hamburgers, meat loaf, cooked vegetables, rice, macaroni, hash, poached eggs, or used as sauce for Italian spaghetti and meat balls. Or chill and combine 1 part tomato sauce with 1 part mayonnaise or salad dressing for cocktail sauce, tartar sauce, or dressing for jellied salads.

## TOMATO FRENCH DRESSING

```
1/2 c. tomato puree
1/2 c. vinegar
3/4 tsp. salt
1/4 tsp. paprika
    1 tb. Worcestershire sauce
```

$1 / 4$ tsp. pepper
$1 / 4$ c. sugar
1 tb. grated onion
$1 / 2$ tsp. mustard
1 c. salad oil

Combine all ingredients and mix thoroughly. Makes 1 pint of dressing.

## CAULIFLOWER ROMANA

1 head cauliflower
1 clove garlic
3 tb. cooking fat
$1 / 2$ tsp. salt
$1 / 2$ c. tomato puree
$1 / 2$ c. water
chopped parsley

Saute garlic lightly in cooking fat. Remove garlic. Add cauliflower flowerets and brown slightly. Add salt, tomato puree and water, cover, simmer until done (10 to 15 minutes). Turn into serving dish and sprinkle with chopped parsley.

Variations: Broccoli or string beans may be substituted for cauliflower. $1 / 4$ cup chopped onions may be used in place of the garlic.

## TOMATO ASPIC

| $11 / 2$ | c. tomato puree |
| ---: | :--- |
| $1 / 2$ | c. water |
| 1 | tb. granulated gelatin |
| $3 / 4$ | tsp. salt |

2 tb. lemon juice
1 tsp. grated onion
Dash of pepper

Soften gelatin in $1 / 4$ c. water. Heat remainder to boiling. Remove from heat, add gelatin and stir until dissolved. Add remaining ingredients, mix thoroughly and chill until thickened.

Variations: Vegetables, such as chopped celery, chopped green pepper, cooked peas, cooked diced carrots, string beans, etc., may be added before the mixture thickens.

## FROZEN FRUIT SALAD

3 oz. pkg. cream cheese
$1 / 4$ c. cooked salad dressing
Dash of salt
$1 / 2$ c. whipping cream (or evaporated milk)

1 c. puree
1 c. diced orange
1 tsp. grated orange rind
$1 / 4$ c. chopped nuts

Combine cream cheese and salad dressing, mix well. Add puree. Fold in whipped cream (or whipped evaporated milk) and remaining ingredients. Turn into freezing tray and freeze in mechanical refrigerator. Or turn into mold, cover, pack in 4 parts ice to 1 part salt until frozen. Serve on lettuce. Serves 6 to 8 .


Fig. 4 - A ring mold of tomato aspic, filled with mixed vegetable salad and garnished with dill dressing, will tempt family appetite.

## FREEZER ICE

| $1 / 4$ | c. | sugar |
| ---: | :--- | :--- |
| 1 | c. water | Dash of salt |
| $1 / 2$ | c. puree | Juice of 1 orange or |
|  | 1 lemon |  |

Mix sugar and water and bring to a boil. Cool. Add remaining ingredients, and freeze, using 1 part of salt to 8 parts of ice as the freezing mixture. Makes 1 pint of ice.

## PUREE SHERBET

| $1 / 2$ | c. |
| :--- | :--- |
| $1 / 4$ | sugar |
| 1 | to $1 / 2$ c. puree |
| 1 | ts. gelatin |
| $1 / 2$ | c. water |

1 to 2 tb . lemon juice Dash of salt
2 egg whites, stiffly beaten

Mix gelatin and water, let stand 5 minutes. Heat gently until gelatin is melted. Add sugar, puree, lemon juice and salt, and chill. When cool, turn into refrigerator tray and freeze until mushy. Remove from tray and beat with rotary egg beater until smooth. Fold in egg whites, return to refrigerator and freeze until solid. Serves 4 to 6 .

To freeze in a hand freezer, add egg whites to cool mixture, turn into freezer and freeze in a mixture of 8 parts of ice to 1 of salt.

## FRUIT ICE CREAM

| $11 / 2$ | c. puree |
| :---: | :--- |
| $1 / 4$ | c. sugar |
| Dash of salt | 2 c. light orange juice, or |
|  | 2 tsp. lemon juice |

Combine ingredients. Freeze in freezer using 1 part of salt to 8 parts of ice for the freezing mixture. Makes about $3 / 4$ qt. ice cream.

May be frozen in a mechanical refrigerator. Set the cold control as low as possible. Freeze mixture until mushy, take out and beat with rotary egg beater until smooth, return to refrigerator and freeze until solid.

## FROZEN RIPPLE

1 quart vanilla ice cream 1 cup puree
Cut ice cream into irregular chunks. Pack into freezing tray or mold, pouring puree over and around the pieces to give a marbled effect. Freeze in mechanical refrigerator or cover tightly and pack in a mixture of 4 parts ice to 1 of salt. Serves 4 to 6 .

## DELICIOUS FRUIT PUDDING

| 1 c. cake flour | $1 / 2$ c. sugar |
| :--- | :--- |
| 1 tsp. baking powder | $1 / 2$ c. milk |
| $1 / 4$ tsp. salt | $1 / 2$ tsp. vanilla |
| 2 tb. shortening | 1 c. puree |
| 1 tb. flour | 1 orange, cut in sections |
| $1 / 4$ c. sugar | 1 tb. grated orange rind |
| $1 / 2$ | c. water |

Sift 1 c. flour, baking powder and salt. Cream shortening, add $1 / 2$ cup sugar and cream well. Add flour mixture alternately with milk and vanilla.

Combine 1 tb . flour and $1 / 4 \mathrm{c}$. sugar, add water slowly and mix until smooth. Add puree, orange sections and rind, and turn into a casserole. Top with cake mixture, bake in a moderate oven ( $350^{\circ}$ F.) 50 minutes, or until cake is done. Serves 4 to 6 .

## SEVEN-MINUTE FROSTING

```
        2 ~ e g g ~ w h i t e s
11/2 c. sugar
```

$1 / 2$ c. puree
1 tb. lemon juice

Combine in top of double boiler, place over hot water and beat with rotary egg beater for seven minutes. Remove from heat, continue to beat until proper consistency to spread. Makes enough frosting for tops and sides of two 9 -inch layers or three 8 -inch layers. If puree is quite tart, omit lemon juice.


Fig. 5 - Adding second half of cake batter to make fruit ripple cake.

## FRUIT RIPPLE CAKE

| $1 / 4$ | c. | shortening |
| :--- | :--- | :--- |
| $3 / 4$ | c. | sugar |
| 1 | egg |  |
| 2 | c. | flour |
| 1 | c. | puree |
| $1 / 2$ | c. | chopped nuts |

Cream shortening, add $3 / 4$ c. sugar gradually, creaming thoroughly. Add egg and beat thoroughly. Sift flour, baking powder and salt. Add to creamed mixture alternately with milk, beating after each addition. Turn half of batter into greased $8 \times 8 \times 2$-inch pan. Combine puree, nuts, $1 / 4 \mathrm{c}$. sugar and nutmeg, pour half of this over batter in pan. Top with remaining cake batter, then remaining puree mixture. Bake in a moderate oven ( $375^{\circ}$ F.) 40 to 45 minutes. Serve warm.

## PUREE AND APPLE COBBLER

$11 / 2$ c. flour<br>$11 / 2$ tsp. baking powder<br>1 tb. sugar<br>$1 / 4$ tsp. salt<br>$11 / 2$ c. puree<br>1 large apple, sliced

$1 / 4$ c. shortening
1 egg , slightly beaten
$1 / 4$ c. milk
$1 / 4$ c. sugar

Sift flour, baking powder, 1 tb . sugar and salt together. Cut in shortening. Combine egg and milk, add to flour mixture and stir. Turn out on floured board and knead 30 seconds. Pat out to fit top of baking dish. Combine puree, apple and $1 / 4$ c. sugar. Turn into shallow baking dish, cover with dough, bake 25 to 30 minutes in a hot oven ( $400^{\circ}$ F.). Serve warm. Serves 6 to 8 .


Fig. 6 - Placing the crust on puree and apple cobbler.

## MERINGUE PIE

```
    1 cup sugar
    4 tb. cornstarch
13/4 c. water
    2 egg yolks, slightly beaten
    1 tb. lemon juice
```

1 c. puree
1 baked 9-inch pie shell
2 egg whites, stiffly beaten with
4 tb. sugar

Combine 1 c . sugar, cornstarch, water, bring to a boil and cook until well thickened. Remove from fire, add slightly beaten egg yolks, return to fire and cook gently until thickened again. Add puree and lemon juice, cool, turn into pie shell. Top with meringue made of 2 egg whites beaten stiff with 4 tb. sugar added. Bake in a moderate oven ( $325^{\circ} \mathrm{F}$.) 15 minutes, or until meringue is well browned.

## SWEDISH FRUIT WHIP WITH CUSTARD SAUCE

| 1 tb. cornstarch | 1 c. puree |
| :--- | :--- |
| $1 / 2$ c. sugar | 2 tb. lemon juice |
| Dash of salt | 1 tsp. grated lemon rind |
| $1 / 4$ | c. water |

Mix cornstarch, sugar and salt. Add water and puree and cook until well-thickened. Add lemon juice and rind. Whip egg white until stiff, add hot fruit mixture gradually, beating constantly. Pour into serving dish or sherbet glasses, chill and serve with custard sauce. Serves 6. Lemon juice and rind may be omitted if puree is very tart.

Custard Sauce: Mix thoroughly 1 egg yolk, $1 / 3$ c. sugar, dash of salt and 1 c . milk. Place in top of double boiler over hot water and cook gently, stirring constantly, until mixture coats the spoon. Remove from heat, add $1 / 4$ tsp. vanilla, cool, serve on fruit whip.


Fig. 7 - Chiffon pie, topped with whipped cream and served with hot coffee. makes a gala ending for dinner, or fine party refreshments.

## CHIFFON PIE

1 tb. ( 1 envelop) gelatin
$3 / 4$ c. water
$3 / 4$ c. puree
1 tb. lemon juice

2 eggs, separated
1 c. sugar
$1 / 4$ tsp. salt
1 baked 9-inch pie shell

Soak gelatin in water 5 minutes. Add puree, lemon juice, egg yolks, and $1 / 2$ cup sugar. Turn into top of double boiler. Cook over hot water until slightly thickened. Cool. When mixture begins to set, fold in egg whites beaten with other $1 / 2$ cup sugar, and salt, and turn into pie shell. Chill until set.


[^0]:    *The study upon which this report is based was made in part by funds provided by the Rackham Research Endowment.
    \%*Assistant Professor (Research), Department of Foods and Nutrition.
    The author is indebted to many members of the Foods and Nutrition staff for assistance in preparing and sampling the purees and recipes discussed in this bulletin.

