University of California
Cooperative Extension

Cottage Food Operator's Handbook

Making and Preserving Fruit: Butters, Jellies, Preserves, and Jams

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Brand names and company names are included for educational purposes. No endorsement is implied nor is discrimination intended against similar products or services.

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MAKING AND PRESERVING FRUIT: BUTTERS, JELLIES, PRESERVES AND JAMS

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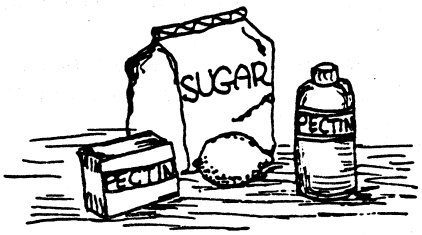
Definitions of Various Fruit-based Products:

Fruit butters, jellies, preserves and jams are foods having a variety of textures, flavors and colors. They are all produced by preserving the fruit with sugar, and are thickened or jellied to some degree. These products have the following characteristics:

- Butters: pureed fruit cooked with sugar and sometimes juice, usually with added spices. The Cottage Food Law allows only certain fruits to be used in fruit butters. Also note the amount of sweeteners and pectin allowed. Butters generally have less sugar than jam.
- Jellies: gelatinous, clear and made from fruit juice and sugar, texture is firm and it holds its shape. Follow the Cottage Food Law (CFO Law) to ascertain acceptable fruits allowed to be made into jellies and the proportions of fruit, sweetener and pectin allowed.
- Preserves: made from whole or cut up fruit in clear, slightly jelled syrup. Follow the CFO Law to ascertain acceptable fruits and proportions. The CFO Law permits the inclusion of dried fruits, but nuts are not allowed.
- Jam: crushed or chopped fruit that is cooked with sugar until it gels. Less firm than jelly. Follow the CFO Law to ascertain acceptable fruits and the proportion of fruit, sweetener and pectin allowed.
- Conserves: preserves are made from a mixture of fruits and/or vegetables that may also include dried fruit or nuts. Again, follow the CFO Law to ascertain acceptable fruits and proportions. The CFO Law permits the inclusion of dried fruits, but nuts are not allowed.
- Marmalade: sliced, ground, or diced citrus fruit; suspended in clear jelly. Again, follow the CFO Law to ascertain fruits and proportions.



Pectin jellies and jams are recognizable because they are thick and gelatinous. This state is reached by a combination of fruit with three ingredients: pectin, acid and sugar. Most fruit jellies and jams contain about one percent pectin. It is naturally occurring and found in many fruits, some containing enough natural pectin to make finished product. Many others require added pectin, especially when making jelly.

Pectins are complex chemicals whose jelling ability is standardized in products made for use in jelly and jam. However, the ability of these products to jell is gradually lost if stored too long before use, or if the mix is heated too long before it is filled into jars.

The amount of pectin recommended may vary from brand to brand. Unused pectins should be stored in a cool, dry place so they will keep their gel strength. Most pectin only work when using a large amount of sugar although some low sugar varieties of pectin are available. They are designed for use with one-third less sugar than the standard pectins. Other pectins will jell without any sugar. (Cottage Food Operators: Only low sugar fruit butters are allowed; no low sugar jams or jellies are allowed).

When using a traditional form of pectin, you have two forms to choose from—dry powdered or liquid. These pectins are made from apples or citrus fruits. Recipes are specifically designed for these traditional pectins; they must be used with the correct form of pectin, method of

preparation, amount of sugar, and amount of fruit. The amount of pectin recommended may vary from brand to brand. If you are using traditional pectin, do not increase or reduce the amount of sugar given in the recipe. It takes a lot of sugar to form a gel. If you use less, you will end up with syrup or a very soft gel. If you use too much, some sugar may remain undissolved. These crystals will leave a sandy or gritty feel in the mouth. Do not double a recipe. It takes too much cooking time, which breaks down the pectin resulting in soft and runny product. Boiling longer only worsens the problems and may change the flavor and darken the color.

These fruits usually contain enough pectin and acid for jelly	
Apples, tart	Grapes, Eastern Concord
Blackberries, tart	Lemons
Crabapples	Loganberries
Cranberries	Plums, most varieties
Currants	Prunes, sour
Gooseberries	Quince
These fruits usually are low in pectin or acid	
Apples, ripe	Grapefruit
Blackberries, ripe	Grape juice, eastern Concord
Cherries, sour	Grapes, California
Elderberries	Oranges
These fruits always need added pectin, acid, or both	
Apricots	Pears
Figs	Pomegranates
Grapes, western Concord	Prunes
Guava	Raspberries
Peaches	Strawberries

Acid: Cooked fruit products made with pectin have a pH between 3.0 and 3.3. Below 3.0, the jelly weeps or forms droplets of water on its surface. If above 3.3 pH, the jelly will be weak and increasingly runny.

Acid is needed for flavor and for gel formation. The acid content varies in fruits and is higher in under ripe fruits. Nearly all fruits need added acid. Commercial pectin products also contain acids.

If lemon juice is needed for additional acid, commercial lemon juice should be used. If desired, ⅛ teaspoon of citric acid can be substituted for each tablespoon of lemon juice.

Sugar: Sugar helps in gel formation, serves as a preserving agent, and contributes to the flavor of the jellied product. It also has a firming effect on the fruit, a property that is useful in making jams. Sugar is a very important factor in determining the shelf life of preserved fruit products. Corn syrup, honey, other nutritive sugars, and low-calorie sweeteners may not be substituted one for one for sugar in recipes. If you wish to use these sweeteners, it is best to use recipes specifically designed for them.

California's CFO Law requires using the fruit-to-sugar proportions specified in the Code of Federal Regulations (CFR), Title 21, Section 150 for various preserved fruit products; these standards are displayed in Appendix 4A at the end of this chapter. These proportions are based on the weight of the fruit and sugar, rather than volume (cups). For example, strawberry is classified as a Group 1 fruit (see Appendix 4A, page 10). CFR 21 150.160 d(1) requires that jams made with Group 1 fruit must have 47 part of fruit to 55 parts of saccharine (Appendix 4A, page 11). If a traditional recipe calls for 4 cups of hulled and crushed strawberries, the amount of sugar can be calculated using the following steps.

1. Measure the weight of 4 cups of strawberries (34 ounces)
2. Calculate the ratio of 47 parts fruit to 55 parts sugar: 47 / 55 = .85
3. Let S be the number of ounces of sugar that need to be calculated.
4. State the equivalent ratios: 34 / S = 47 / 55 = .85
5. To solve for S, multiply both sides by S: S X 34 / S = .85S
6. Simplify to 34 = .85S
7. Divide both sides by .85: 34 / .85 = .85S/.85, which simplifies to 40 = S

So 47 parts of fruit to 55 parts of sugar means that, when using 34 ounces of strawberries, 40 ounces of sugar must be added.

General Instructions & Steps in Jam or Jelly Making

Fruits can be frozen or canned for making jams or jellies at a more convenient time. When freezing or canning your own fruits to make jams or jellies later, preserve the fruits unsweetened. Frozen fruits tend to collapse when thawed and this makes accurate measurements difficult. Therefore, measure amounts needed before freezing, package, mark, and freeze. Commercially canned or frozen fruit juices frequently have the pectin removed. Jellies made with these juices will be soft in texture. Use reliable recipes with detailed instructions. Measure ingredients carefully. Remember—fruit, pectin, acid, and sugar all have to be present in the right amounts for the jelly or jam to gel.For acceptable Cottage Foods fruit butters, jams, jellies and preserves, traditional recipes cannot be used 'as is'. Because the regulations require weight measurements be used, the CFO will have to weigh the fruit and the sugar to get the approved proportions. Usually, a person can start with a standard pectin recipe and weigh the amounts that the recipe (usually cups and tablespoons) uses. Then test to see if these measurements are in the correct proportions for acceptable Cottage Food products.

Once the correct weights of fruit (or juice) and sugar are ascertained (such as 34 ounces of strawberries to 40 ounces of sugar), use the instructions for the recipe you were 'basically' following.

1. Wash and dry clean canning jars. They do not need to be pre-sterilized if more than 10 minutes in a boiling water canner.
2. Prepare the two-piece lids according to the manufacturer's instructions.
3. Prepare butter, jam, jelly, or preserves according to Cottage Food recommendations based upon a recipe for the product. Usually, a commercial pectin product will help to have a standard product with more yield in less time than other methods.
4. Boil for recommended time and quickly skim off foam. Add ½ teaspoon vegetable oil to prevent foam formation, if desired. **Animal fats such as butter are not allowable by Cottage Food Law.**

5. Fill jars, leaving ¼ inch headspace.
6. Wipe the sealing surface of the jars with a dampened paper towel, to remove anything on the rim that might interfere with sealing.
7. Place prepared lids and rings on the jars. Screw finger tight but do not force too tightly.
8. Process 10 minutes in boiling water canner with water at least one inch above tops of jars. Process 15 minutes if elevation is 1,001 to 6,000 ft. and 20 minutes if above 6,000 ft.
9. Remove jars from canner, do not tip, keep them upright. Do not wipe off water, it will evaporate. Place on a soft towel and keep out of drafts so the jars can cool undisturbed.
10. Cool jars upright for 12-24 hours.
11. Remove screw bands.
12. Wash jars and lids to remove all residue.
13. Label and store in a cool, dry place. For CFO products, labeling instructions must be followed carefully.

Making Jelly with Added Pectin: Follow Cottage Food Law requirements for making acceptable jelly. Weigh the juice and the sugar to obtain the correct proportions. Use only firm fruits naturally high in pectin. Select a mixture of about ¾ ripe to ¼ under ripe fruit. Wash all fruits thoroughly before cooking. Crush soft fruits or berries; cut firmer fruits into small pieces. Some recipes can be found that utilize canned or frozen juices that yield satisfactory products. In general, commercially canned or frozen fruit juices will not make satisfactory jellies unless pectin is added because the natural pectin has been removed.

- Using the peels and cores will add pectin to the juice during cooking.
- Add water to fruits that require it as listed in the following table.

General Guidelines for Extracting Juices and Making Jelly (will vary for Cottage Foods)

	To Extract Juice		**Ingredients added to each cup of strained juice**		**Yield from 4 cups of juice**
	Cups of water to be added per lb. of juice or fruit	**Minutes to simmer fruit before extracting juice**	**Sugar (cups)**	**Lemon Juice (tsp.)**	**1/2 pints**
Apples	1	20-25	3/4	1 1/2 (optional)	4-5
Blackberries	0-1/4	5-10	3/4-1	0	7-8
Crabapples	1	20-25	1	0	4-5
Grapes	0-1/4	5-10	3/4-1	0	8-9
Plums	1/2	15-20	3/4	0	8-9

- Put fruit and water in large saucepan and bring to a boil. Then simmer according to time listed until fruit is soft, while stirring to prevent scorching.
- One pound of fruit should yield at least one cup of clear juice.

- When fruit is soft, strain through a colander. Then strain through a double layer of cheesecloth or a jelly bag. Allow juice to drip through, using a stand or colander to hold the bag. Pressing or squeezing the bag or cloth will cause cloudy jelly.
- Use no more than six to eight cups of extracted fruit juice at a time. Measure fruit juice, sugar, and lemon juice according to the recipe and heat to boiling. Stir until the sugar is dissolved. Boil over high heat to the jellying point. To test for doneness, use one of the following methods.

Temperature test: Use a jelly or candy thermometer and boil until mixture reaches the proper temperature for your altitude, as indicated in the following chart.

Altitude	**Sea Level**	**1,000 ft.**	**2,000 ft.**	**3,000 ft.**	**4,000 ft.**	**5,000 ft.**	**6,000 ft.**	**7,000 ft.**	**8,000 ft.**
Temperature needed	220°F	218°F	216°F	214°F	212°F	211°F	209°F	207°F	205°F

Sheet or spoon test: Dip a cool metal spoon into the boiling jelly mixture. Raise the spoon about 12 inches above the pan (out of steam). Turn the spoon so the liquid runs off the side. The jelly is done when the syrup forms two drops that flow together and sheets or hangs off the edge of the spoon.
Remove from heat and quickly skim off foam. Then promptly fill canning jars with jelly using a measuring cup or ladle the jelly through a wide-mouth funnel, leaving ¼ inch headspace. Adjust lids and process ten minutes in a boiling water canner. (Adjust processing time for elevation, if needed.)

Making Jam Without Added Pectin: For best flavor, use fully ripe, but not overripe fruit. Rinse fruit thoroughly before cooking. Do not soak. Remove stems, skins, and pits from fruit; cut into pieces and crush. For berries, remove stems and blossoms and crush. Seedy berries may be put through a sieve or food mill. Measure crushed fruit into a large saucepan using the ingredients and quantities required by Cottage Food Law.

- Add sugar and bring to a boil while stirring rapidly and constantly.
- Continue to boil until mixture thickens. Use one of the following tests to determine when jams are ready to fill. Remember to allow for thickening during cooling.

Temperature test: Use a jelly or candy thermometer. See temperatures at various altitudes as described above for jelly.

Freezer test: Place a small plate in the freezer, remove the jam mixture from the heat and pour a small amount onto cold plate. Put it in freezer for a couple of minutes. Tip the plate and if the mixture doesn't run and is jelly-like, it is ready to fill into the jar.

Adjusting Firmness in Jellies, Jams, and Preserves: Jelly will be medium firm if you are using fruit with average jellying properties. Fruits differ so it's not possible to develop exact formulas that will produce the same result over and over.
If your first batch is too soft or firm, adjust the proportions of fruit or the cooking time for the next batch.

In products made with added pectin, use ¼ to ½ cup more fruit or juice to make a softer product. Use ¼ to ½ cup less fruit or juice to make a firmer product. When making Cottage Foods allowable preserved fruit products (Butters, Jams, Jellies, Preserves), one must follow the allowable proportions of fruit, sweetener, and pectin.

In products made without added pectin, shorten the cooking time to make a softer product. Lengthen the cooking time to make a firmer product.

Packaging

The boiling water processing requirements for fruit jams, jellies, and other preserved fruit products make glass the only financially viable packaging option for cottage food producers. Glass jars are available in a variety of sizes, colors and shapes, but cost considerations cause most CFOs to use clear Mason jars. Their thick walls easily withstand the high temperatures of fruits cooked with sugar. When pouring jams or other preserved fruit products into jars, it is very important to wipe the jar rims using a clean, damp paper towel to ensure that none of the jam is left on the sealing surface and interferes with the lid sealing properly.

Storage

Like all other cottage foods, California's Cottage Food Law requires that jams and other preserved fruit products must be stored in the home kitchen or in a storage area attached to the home that is used exclusively for storage. Storage areas must be maintained free of rodents and insects.

Jams and other preserved fruit products should be stored in a cool, dark, dry place, between 50-70°F and consumed within a year. Over extended periods of time, changes in color, flavor, texture and nutrient content of home-canned preserved fruit products are inevitable. Do not store jars above 95°F or near hot pipes, a range, a furnace, or in direct sunlight. Under these conditions, food will lose quality in a few weeks or months and may spoil. Accidental freezing of jams and other preserved fruit products will not cause spoilage unless jars become unsealed and contaminated. If jars must be stored where they may freeze, wrap them in newspapers, place them in heavy cartons, and cover with more newspapers and blankets. Dampness may corrode metal lids, break seals, and allow recontamination and spoilage.

Some Common Questions and Answers

Q. Can I use honey in place of sugar when I make jams and jellies?

A. In a recipe with no added pectin, you may replace half the sugar with honey. In a recipe with added pectin, you can replace approximately one-fourth of the sugar with honey. Jams and jellies made with honey will have a darker color and slightly different flavor than those made with sugar.

Q. Can I use corn syrup in place of sugar when I make jams and jellies?

A. In jellies and jams with no added pectin, you can replace one-fourth of the sugar with light corn syrup. In recipes with added powdered pectin, you can replace up to one-half of the sugar in jelly and jam with light corn syrup. In recipes with liquid pectin, you can replace up to 2 cups of the sugar with light corn syrup. Doing any adjustments of this nature, may compromise the proportions allowed for Cottage Food Products.

Q. Why are my double batches of jelly unsuccessful?

A. The cooking time changes in relation to the proportion of ingredients when you increase the recipe. The bigger the batch, the worse the problem will be. Small batches of jelly are easier to handle and are more apt to turn out successfully.

Q. Why is it necessary to process jellies, conserves, preserves, and marmalades?

A. Mold and other spoilage microorganisms can grow if the jar is not sealed tightly to exclude air. Water bath processing produces a strong vacuum seal.

Q. Can ordinary cooked jams and jellies be frozen successfully?

A. Yes. Allow room for expansion as they freeze however. This usually means increasing headspace to ½ inch or more. You may wish to freeze overnight and then cover jars with tight-fitting lids to reduce jar breakage. The color, flavor, and texture of jams and jellies stored in the freezer are excellent.

Q. How long can powdered or liquid pectin be stored?

A. Pectin should be stored in a cool, dry place so that it will keep its jell strength. It should not be held over from one year to another.

Q. My jam tastes like wine; what happened?

A. It has fermented due to an improper seal or due to storing too long in the refrigerator.

Q. Why is my jelly bubbly?

A. If the bubbles are active, it's a sign of spoilage—throw it out! Stationary bubbles indicate the jelly was poured too slowly from too great a height into the jars and air was trapped.

Q. Can I rescue my over-cooked jelly?

A. Unless it tastes scorched or burned, it can be diluted with water and heated to make pancake syrup. Follow the directions more carefully next time.

Q. Can fruit juice or fruit be canned or frozen to be made into jelly or jam at a later time?

A. Definitely. In fact, jellied products are best not stored longer than 6 months. If you add sugar to the juice or canned fruit, be certain to label the amount added.

Q. What can be done to make soft jellies firmer?

A. Measure jelly to be recooked. Work with no more than 4 to 6 cups at a time. **Note:** Adding additional sugar, acid and pectin will affect the proportions allowable for Cottage Food products.
To remake with powdered pectin: For each quart of jelly, mix ¼ cup sugar, ½ cup water, 2 tablespoons commercial lemon juice, and 4 teaspoons powdered pectin. Bring to a boil while stirring. Add jelly and bring to a rolling boil over high heat, stirring constantly. Boil hard ½ minute. Remove from heat, quickly skim foam off jelly, and fill sterile jars, leaving ¼ inch headspace. Wipe jar rims with damp clean cloth or paper towel. Use newly prepared lids and rings. Process for 10 minutes at sea level or more per higher elevations.

To remake with liquid pectin: For each quart of jelly, measure ¾ cup sugar, 2 tablespoons commercial lemon juice, and 2 tablespoons liquid pectin. Set aside. Bring jelly to boil over high heat, while stirring. Remove from heat and quickly add the sugar, lemon juice, and pectin mixture. Bring to a full rolling boil, stirring constantly. Boil hard for 1 minute. Quickly skim off foam and fill sterile jars, leaving 1/4-inch headspace. Wipe jar rims with damp clean cloth or paper towel. Use newly prepared lids and rings. Process for 10 minutes at sea level or more per higher elevations.

To remake without added pectin: For each quart of jelly, add 2 tablespoons commercial lemon juice. Heat mixture to boiling and boil for 3 to 4 minutes. Use temperature or spoon test (described earlier in this lesson) to determine jelly doneness. Remove from heat, quickly skim off foam, and fill jars, leaving ¼ inch headspace. Wipe jar rims with damp clean cloth or paper towel. Use newly prepared lids and rings. Process for 10 minutes at sea level or more per higher elevations.

Q. Is there any way to remove sugar crystals that have formed in my jelly?

A. Too much sugar may have been added or the jelly was cooked too long. There is no easy method to remove these crystals. You can try remaking the jelly with added water. Start by adding about ½ cup boiling water to the amount of jelly produced in the original recipe. If you had a firm jelly, reheat it with the added water by rapidly bringing it to the boiling point while stirring constantly. Remove from heat and fill jars, leaving ¼ inch headspace. Process the jars for 10 minutes in a boiling water canner. If your jelly was not firm enough the first time, add four teaspoons powdered pectin per quart of jelly with the water and boil hard for one minute before filling jars, or add two tablespoons liquid pectin when the jelly and water reach boiling and continue to boil hard for one minute before filling jars. Wipe jar rims with damp clean cloth or paper towel. Use newly prepared lids and rings. Process for 10 minutes in a boiling water canner at sea level (adjust for elevation, if needed).

Q. What is a full rolling boil?

A. It is a bubbling, steamy boil that no amount of stirring can stir down. A very large saucepan is recommended to prevent boiling over.

Q. How can I decrease the amount of foam which forms on my jelly?

A. The foam that forms from the boiling process will not hurt the product, but it will detract from the appearance. Adding ½ teaspoon oil may help eliminate this foam.

Resources

So Easy to Preserve. University of Georgia (http://setp.uga.edu/)

USDA Complete Guide to Home Canning, 2009 revision. USDA AIB 539.
http://nchfp.uga.edu/publications/publications_usda.html

- *Let's Preserve: Jam, Jellies and Preserves.* . University of Nebraska Extension. EC 448. http://ianrpubs.unl.edu/live/ec448/build/ec448.pdf

Jams and Jellies: Problems and Solutions

Problem	Cause	Prevention
Formation of sugar crystals	Excess sugar	Follow recipe exactly.
	Undissolved sugar sticking to sides of kettle	Wipe side of pan free of crystals with damp cloth before filling jars.
	Mixture cooked too slowly or too long	Cook at a rapid boil. Remove from heat immediately when jellying point is reached.
	Mixture cooked too little	Cook until sugar has completely dissolved and mixed with fruit juice.
		Products are safe to eat.
Syneresis or "weeping"	Excess acid in juice makes pectin unstable	Maintain proper acidity of juice.
	Storage place too warm or storage temperature fluctuated	Store in a cool, dark, dry place.
	Product was sealed with paraffin	Seal with lids and process. "Weepy" products are safe to eat.
Too soft	Overcooking fruits to extract juice	Avoid overcooking as this lowers the jellying capacity of pectin.
	Incorrect proportions of sugar and juice	Follow recommended instructions.
	Undercooking causing insufficient concentration	Cook rapidly to jellying point.
	Insufficient acid	Avoid using fruit that is overripe. Add lemon juice if needed.
	Making too large a batch at one time	Use only 4 to 6 cups of juice in each batch of jelly.
		Products are safe to eat.
Too stiff or tough	Overcooking	Cook jelly mixture to a temperature 8 degrees higher than the boiling point of water for jelly.
	Too much pectin in fruit	Use ripe fruit.
		Products are safe to eat.

Problem	Cause	Prevention
Cloudy	Fruit was green	Use firm, ripe fruit, or slightly under ripe.
	Imperfect straining	Do not squeeze juice; let it drip through jelly bag.
	Jelly allowed to stand before it was poured into jars and poured too slowly	Hold kettle close to top of jar and pour jelly quickly into jar. Follow recommended methods to get airtight seal.
	If product does not have airtight seal, may denote spoilage. If there are moving bubbles, do not use.	Cloudy products are safe to eat unless there are moving bubbles or product appears spoiled.
Mold (denotes spoilage; do not use)	Imperfect seal	Seal with lids and process in boiling water bath.
	Paraffin seal not airtight, reusing paraffin	Do not use paraffin; use 2-piece lids and process in boiling water bath.
	Lack of sanitation	Sterilize jars if processing time is less than 10 minutes.
	Too little sugar	Following processing recommendations for low-sugar jellied products. Moldy jams and jellies are not safe to eat and should be discarded.
Fading	Storage place too warm or too light	Store in cool, dark, dry place 35-50°F.
	Storage too long	Use oldest products first. Products are safe to eat.
Fruit floats in jam	Under ripe fruit	Use ripe fruit.
	Not thoroughly crushed	Crush fruit uniformly.
	Undercooking	Cook rapidly following instructions.
	Improper packing in jars	Products are safe to eat.

Problem	Cause	Prevention
Bubbles	Kettle was not held close to top of jar as jelly was poured, or jelly was poured slowly and air became trapped in hot jelly If product does not have an airtight seal may denote spoilage. If bubbles are moving, do not use	Hold kettle close to top of jar and pour jelly quickly into jar. Follow recommended methods to get airtight seal. Jellied foods with bubbles safe to eat unless there are moving bubbles or product is spoiled.
Crystals in grape jelly	Tartrate crystals	Formed from the tartaric acid naturally present in grapes. To minimize crystal formation, let the freshly extracted grape juice stand in the refrigerator two to five days. Pour or decant and strain the clear juice again through a jelly bag or coffee filter before making the jelly.
Dark surface	Air in jar	Indicates the jar of jelly was sealed with too much air, or the seal failed.
Darker than normal coloring	Overcooking sugar and juice	Recipes with added pectins are cooked less and result in better and brighter color.
Wine-like flavor or odor	Inadequate heat processing or stored too long in the refrigerator	Caused by yeast fermentation of the sugar to alcohol and carbon dioxide. If there is no mold on or in the jelly, it is safe to eat.

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TITLE 21--FOOD AND DRUGS
CHAPTER I--FOOD AND DRUG ADMINISTRATION
DEPARTMENT OF HEALTH AND HUMAN SERVICES
SUBCHAPTER B--FOOD FOR HUMAN CONSUMPTION

PART 150 FRUIT BUTTERS, JELLIES, PRESERVES, AND RELATED PRODUCTS

Subpart B--Requirements for Specific Standardized Fruit Butters, Jellies, Preserves, and Related Products

Sec. 150.110 Fruit butter.

(a) The fruit butters for which definitions and standards of identity are prescribed by this section are the smooth, semisolid foods each of which is made from a mixture of one or a permitted combination of the optional fruit ingredients specified in paragraph (b) of this section and one or any combination of the optional ingredients specified in paragraph (c) of this section, which meets the specifications in paragraph (d) of this section, and which is labeled in accordance with paragraph (e) of this section. Such mixture is concentrated with or without heat. The volatile flavoring materials or essence from such mixture may be captured during concentration, separately concentrated, and added back to any such mixture, together with any concentrated essence accompanying any optional fruit ingredient.

(b)(1) Each of the optional fruit ingredients referred to in paragraph (a) of this section is prepared by cooking one of the following fresh, frozen, canned, and/or dried (evaporated) mature fruits, with or without added water, and screening out skins, seeds, pits, and cores:

Factor Referred to in Paragraph (d)(2) of This Section

Name of fruit	
Apple	7.5
Apricot	7.0
Grape	7.0
Peach	8.5
Pear	6.5
Plum (other than prune)	7.0
Prune	7.0
Quince	7.5

(2) The permitted combinations are of two, three, four, and five of the fruit ingredients specified in paragraph (b)(1) of this section; the weight of each is not less than one-fifth of the weight of the combination. Each such fruit ingredient in any such combination is an optional ingredient.

(c) The following safe and suitable optional ingredients may be used:

(1) Nutritive carbohydrate sweeteners.

(2) Spice.

(3) Flavoring (other than artificial flavoring).

(4) Salt.

(5) Acidifying agents.

(6) Fruit juice or diluted fruit juice or concentrated fruit juice, in a quantity not less than one-half the weight of the optional fruit ingredient.

(7) Preservatives.

(8) Antifoaming agents except those derived from animal fats.

(9) Pectin, in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the fruit ingredient.

(d) For the purposes of this section:

(1) The mixture referred to in paragraph (a) of this section shall contain not less than five parts by weight of the fruit ingredient as measured in accordance with paragraph (d)(2) of this section to each two parts by weight of nutritive carbohydrate sweetener as measured in accordance with paragraph (d)(4) of this section.

(2) Any requirement with respect to the weight of any optional fruit ingredient, whether concentrated, unconcentrated, or diluted, means the weight determined by the following method: (i) Determine the percent of soluble solids in the optional fruit ingredient by the method for soluble solids referred to in paragraph (d)(3) of this section; (ii) multiply the percent so found by the weight of such fruit ingredient; (iii) divide the result by 100; (iv) subtract from the quotient the weight of any nutritive sweetener solids or other added solids; and (v) multiply the remainder by the factor for such ingredient prescribed in paragraph (b)(1) of this section. The result is the weight of the optional fruit ingredient.

(3) The soluble solids content of the finished fruit butter is not less than 43 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists" (AOAC), 13th Ed. (1980), section 22.024, under "Soluble Solids by Refractometer in Fresh and Canned Fruits, Fruit Jellies, Marmalades, and Preserves--Official Final Action," which is incorporated by reference, except that no correction is made for water-insoluble solids. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:*http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(4) The weight of any nutritive carbohydrate sweetener means the weight of the solids of such ingredient.

(5) The weight of fruit juice or diluted fruit juice or concentrated fruit juice (optional ingredient, paragraph (c)(6)) from a fruit specified in paragraph (b)(1) of this section is the weight of such juice, as determined by the method prescribed in paragraph (d)(2) of this section, except that the percent of soluble solids is determined by the method prescribed in the AOAC, 13th Ed. (1980), section 31.011, under "Solids by Means of Refractometer--Official Final Action," which is incorporated by reference; the weight of diluted concentrated juice from any other fruits is the original weight of the juice before it was diluted or concentrated. The availability of this incorporation by reference is given in paragraph (d)(3) of this section.

(e)(1)*Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter, except that:

(i) In case the fruit butter is made from a single fruit ingredient, the name is "Butter", preceded by the name where by such fruit is designated in paragraph (b)(1) of this section.

(ii) In case the fruit butter is made from a combination of two, three, four, or five fruit ingredients, the name is "Butter", preceded by the words "Mixed fruit" or by the names whereby such fruits are designated in paragraph (b)(1) of this section, in the order of predominance, if any, of the weight of such fruit ingredients in the combination.

(2) Each of the optional ingredients specified in paragraphs (b) and (c) of this section shall be declared on the label as required by the applicable sections of part 101 of this chapter, except that:

(i) Other than in the case of dried (evaporated) fruit the name(s) of the fruit or fruits used may be declared without specifying the particular form of the fruit or fruits used. When the optional fruit ingredient is prepared in whole or in part from dried fruit, the label shall bear the words "prepared from" or "prepared in part from", as the case may be, followed by the word "evaporated" or "dried", followed by the name whereby such fruit is designated in paragraph (c) of this section. When two or more such optional fruit ingredients are used, such names, each preceded by the word "evaporated" or "dried", shall appear in the order of predominance, if any, of the weight of such ingredients in the combination.

(ii) [Reserved]

[42 FR 14445, Mar. 15, 1977, as amended at 47 FR 11831, Mar. 19, 1982; 49 FR 10101, Mar. 19, 1984; 54 FR 24895, June 12, 1989; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

Sec. 150.140 Fruit jelly.

(a) The jellies for which definitions and standards of identity are prescribed by this section are the jelled foods each of which is made from a mixture of one or a permitted combination of the fruit juice ingredients specified in paragraph (b) of this section and one or any combination of the optional ingredients specified in paragraph (c) of this section, which meets

the specifications in paragraph (d) of this section and which is labeled in accordance with paragraph (e) of this section. Such mixture is concentrated with or without heat. The volatile flavoring materials or essence from such mixture may be captured during concentration, separately concentrated, and added back to any such mixture, together with any concentrated essence accompanying any optional fruit ingredient.

(b)(1) Each of the fruit juice ingredients referred to in paragraph (a) of this section is the filtered or strained liquid extracted with or without the application of heat and with or without the addition of water, from one of the following mature, properly prepared fruits which are fresh, frozen and/or canned:

Factor Referred to in Paragraph (d)(2) of This Section

Name of fruit	
Apple	7.5
Apricot	7.0
Blackberry (other than dewberry)	10.0
Black raspberry	9.0
Boysenberry	10.0
Cherry	7.0
Crabapple	6.5
Cranberry	9.5
Damson, damson plum	7.0
Dewberry (other than boysenberry, loganberry, and youngberry)	10.0
Fig	5.5
Gooseberry	12.0
Grape	7.0
Grapefruit	11.0
Greengage, greengage plum	7.0

Guava	13.0
Loganberry	9.5
Orange	8.0
Peach	8.5
Pineapple	7.0
Plum (other than damson, greengage, and prune)	7.0
Pomegranate	5.5
Prickly pear	11.0
Quince	7.5
Raspberry, red raspberry	9.5
Red currant, currant (other than black currant)	9.5
Strawberry	12.5
Youngberry	10.0

(2) The permitted combinations are of two, three, four, or five of the fruit juice ingredients specified in paragraph (b)(1) of this section, the weight of each is not less than one-fifth of the weight of the combination. Each such fruit juice ingredient in any such combination is an optional ingredient.

(c) The following safe and suitable optional ingredients may be used:

(1) Nutritive carbohydrate sweeteners.

(2) Spice.

(3) Acidifying agents.

(4) Pectin, in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the fruit juice ingredient.

(5) Buffering agents.

(6) Preservatives.

(7) Antifoaming agents except those derived from animal fats.

(8) Mint flavoring and artificial green coloring, in case the fruit juice ingredient or combination of fruit juice ingredients is extracted from apple, crabapple, pineapple, or two or all of such fruits.

(9) Cinnamon flavoring, other than artificial flavoring, and artificial red coloring in case the fruit juice ingredient or combination of fruit juice ingredients is extracted from apple or crabapple or both such fruits.

(d) For the purposes of this section:

(1) The mixture referred to in paragraph (a) of this section shall contain not less than 45 parts by weight of the fruit juice ingredients as measured in accordance with paragraph (d)(2) of this section to each 55 parts by weight of saccharine ingredient as measured in accordance with paragraph (d)(4) of this section.

(2) Any requirement with respect to the weight of any fruit juice ingredient, whether prepared from concentrated, unconcentrated, or diluted fruit juice means the weight determined by the following method: (i) Determine the percent of soluble solids in such fruit juice ingredient by the method for soluble solids referred to in paragraph (d)(3) of this section; (ii) multiply the percent so found by the weight of such fruit juice ingredient; (iii) divide the result by 100; (iv) subtract from the quotient the weight of any added saccharine ingredient solids or other added solids; and (v) multiply the remainder by the factor for such fruit juice ingredient prescribed in paragraph (b) of this section. The result is the weight of the fruit juice ingredient.

(3) The soluble-solids content of the finished jelly is not less than 65 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), section 31.011, under "Solids by Means of Refractometer--Official Final Action," which is incorporated by reference. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:*http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(4) The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.

(e)(1) The name of each jelly for which a definition and standard of identity is prescribed by this section is as follows:

(i) In case the jelly is made with a single fruit juice ingredient, the name is "Jelly", preceded or followed by the name or synonym whereby the fruit from which such fruit juice ingredient was extracted is designated in paragraph (b) of this section.

(ii) In case the jelly is made with a combination of two, three, four, or five fruit juice ingredients, the name is "Jelly", preceded or followed by the words "Mixed fruit" or by the

names or synonyms whereby the fruits from which the fruit juice ingredients were extracted are designated in paragraph (b) of this section, in the order of predominance, if any, of the weights of any such fruit juice ingredients in the combination.

(2)*Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter, except that:

(i) The name(s) of the fruit or fruits used may be declared without specifying the particular form of the fruit or fruits used.

(ii) When the optional ingredients listed in paragraphs (c) (3), (4), and (5) of this section are declared on the label, the declaration may be followed by the statement "Used as needed" on all jellies to which they are customarily, but not always, added to compensate for natural variations in the fruit juice ingredients used.

[42 FR 14445, Mar. 15, 1977, as amended at 47 FR 11831, Mar. 19, 1982; 49 FR 10101, Mar. 19, 1984; 54 FR 24895, June 12, 1989; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

Sec. 150.141 Artificially sweetened fruit jelly.

(a) The artificially sweetened fruit jellies for which definitions and standards of identity are prescribed by this section are the jellied foods made from a fruit juice ingredient as specified in paragraph (b) of this section and an artificial sweetening ingredient as specified in paragraph (c) of this section, with a jelling ingredient as specified in paragraph (d) of this section. Water may be added. The quantity of the fruit juice ingredient, calculated as set out in 150.140(b), amounts to not less than 55 percent by weight of the finished food. The article is sealed in containers and so processed by heat, either before or after sealing, as to prevent spoilage. Such food may also contain one or more of the following optional ingredients:

(1) Spice, spice oil, spice extract.

(2) A vinegar, lemon juice, lime juice, citric acid, lactic acid, malic acid, tartaric acid, fumaric acid, or any combination of two or more of these, in a quantity which reasonably compensates for deficiency, if any, of the natural acidity of the fruit juice ingredient.

(3) Sodium citrate, sodium acetate, sodium tartrate, monosodium phosphate, disodium phosphate, trisodium phosphate, sodium potassium tartrate, potassium citrate, potassium acid tartrate, or any combination thereof, in an amount not exceeding 2 ounces avoirdupois per 100 pounds of the finished food.

(4) Sodium hexametaphosphate in an amount not exceeding 8 ounces avoirdupois per 100 pounds of the finished food.

(5) Purified calcium chloride, calcium citrate, calcium gluconate, calcium lactate, calcium

sulfate, monocalcium phosphate, potassium chloride, or any combination of two or more of these salts, in a quantity reasonably necessary to enable the jelling ingredients to produce a jellied finished product.

(6) Ascorbic acid, sorbic acid, sodium sorbate, potassium sorbate, sodium propionate, calcium propionate, sodium benzoate, benzoic acid, methylparaben (methyl-*p*- hydroxybenzoate), propylparaben (propyl-*p*- hydroxybenzoate), or any combination of two or more of these, in a quantity reasonably necessary as a preservative, but not to exceed 0.1 percent by weight of the finished food.

(b) The fruit juice ingredient referred to in paragraph (a) of this section is any one, or any combination of two, three, four, or five of the fruit juice ingredients complying with the requirements of 150.140(c). Except as paragraph (d) of this section permits the use of pectin, carrageenan, or salts of carrageenan standardized with nutritive sweetener, no nutritive sweetening ingredient is added, either directly or indirectly, to the fruit juice ingredient used to make artificially sweetened fruit jelly.

(c) The artificial sweetening ingredients referred to in paragraph (a) of this section are saccharin, sodium saccharin, calcium saccharin, or any combination of two or more of these.

(d) The jelling ingredients referred to in paragraph (a) of this section are pectin, agar-agar, carob bean gum (also called locust bean gum), guar gum, gum karaya, gum tragacanth, algin (sodium alginate), sodium carboxymethylcellulose (cellulose gum), methylcellulose (meeting U.S.P. requirements and with methoxy content not less than 27.5 percent and not more than 31.5 percent on a dry-weight basis), carrageenan or salts of carrageenan complying with the requirements of 172.620 or 172.626 of this chapter, or any combination of two or more of these. Pectin may be standardized with a nutritive sweetening ingredient, but such sweetening ingredient shall not amount to more than 44 percent by weight of the standardized pectin and the quantity of such standardized pectin used shall not exceed 3 percent by weight of the finished food. Carrageenan or salts of carrageenan may be standardized with a nutritive sweetening ingredient, but such sweetening ingredient shall not amount to more than 25 percent by weight of the standardized carrageenan or salts of carrageenan and the quantity of such standardized carrageenan or salts of carrageenan used shall not exceed 2 percent by weight of the finished food.

(e) The name of each artificially sweetened fruit jelly for which a definition and standard of identity is prescribed by this section consists of the words "artificially sweetened", immediately followed by the name prescribed by 150.140(e)(1) for the fruit jelly which corresponds in its fruit ingredient to the artificially sweetened article. The words "artificially sweetened" shall be prominently and conspicuously displayed in letters not smaller than the largest letter used in any other word in the name of the food.

(f)(1) The jelling ingredient used shall be named on the label by a statement "___ added" or "with added ___", the blank being filled in with the common name of the jelling ingredient used; for example, "pectin and methylcellulose added".

(2) When one of the optional ingredients specified in paragraph (a)(1) of this section is used,

the label shall bear the statement "___ added" or "with added ___", the blank being filled in with the words "spice", "spice oil", or "spice extract" as appropriate, but in lieu of the word "spice" in such statement the common name of the spice may be used.

(3) When the optional ingredient specified in paragraph (a)(4) of this section is used, the label shall bear the words "sodium hexametaphosphate added" or "with added sodium hexametaphosphate".

(4) When any optional ingredient listed in paragraph (a)(6) of this section is used, the label shall bear the statement "___ added as a preservative", the blank being filled in with the common name of the preservative ingredient used as designated in paragraph (a)(6) of this section.

(g) Wherever the name of the food appears on the label of the artificially sweetened fruit jelly so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in this section, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name, without intervening written, printed, or graphic matter, except that the varietal name of the fruit source of the fruit juice ingredient used in preparing such jelly may so intervene.

(h)*Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

[42 FR 14445, Mar. 15, 1977, as amended at 58 FR 2882, Jan. 6, 1993]

Sec. 150.160 Fruit preserves and jams.

(a) The preserves or jams for which definitions and standards of identity are prescribed by this section are the viscous or semi-solid foods, each of which is made from a mixture composed of one or a permitted combination of the fruit ingredients specified in paragraph (b) of this section and one or any combination of the optional ingredients specified in paragraph (c) of this section which meets the specifications in paragraph (d) of this section, and which is labeled in accordance with paragraph (e) of this section. Such mixture, with or without added water, is concentrated with or without heat. The volatile flavoring material from such mixture may be captured during concentration, separately concentrated, and added back to any such mixture, together with any concentrated essence accompanying any optional fruit ingredient.

(b)(1) The fruit ingredients referred to in paragraph (a) of this section are the following mature, properly prepared fruits which are fresh, concentrated, frozen and/or canned:

Group I

Blackberry (other than dewberry), Black raspberry, Blueberry, Boysenberry, Cherry, Crabapple, Dewberry (other than boysenberry, loganberry, and youngberry) Elderberry, Grape, Grapefruit, Huckleberry, Loganberry, Orange, Pineapple, Raspberry, red raspberry,

Rhubarb, Strawberry, Tangerine, Tomato, Yellow tomato, Youngberry

Group II

Apricot, Cranberry, Damson, damson plum, Fig, Gooseberry, Greengage, greengage plum, Guava, Nectarine, Peach, Pear, Plum (other than greengage plum and damson plum), Quince, Red currant, currant (other than black currant)

(2) The following combinations of fruit ingredients may be used:

(i) Any combination of two, three, four, or five of such fruits in which the weight of each is not less than one-fifth of the weight of the combination; except that the weight of pineapple may be not less than one-tenth of the weight of the combination.

(ii) Any combination of apple and one, two, three, or four of such fruits in which the weight of each is not less than one-fifth and the weight of apple is not more than one-half of the weight of the combination; except that the weight of pineapple may be not less than one-tenth of the weight of the combination.

In any combination of two, three, four, or five fruits, each such fruit is an optional ingredient. For the purposes of this section the word "fruit" includes the vegetables specified in this paragraph.

(c) The following safe and suitable optional ingredients may be used:

(1) Nutritive carbohydrate sweeteners.

(2) Spice.

(3) Acidifying agents.

(4) Pectin, in a quantity which reasonably compensates for deficiency, if any, of the natural pectin content of the fruit ingredient.

(5) Buffering agents.

(6) Preservatives.

(7) Antifoaming agents, except those derived from animal fat.

(d) For the purposes of this section:

(1) The mixture referred to in paragraph (a) of this section shall be composed of not less than: (i) In the case of a fruit ingredient consisting of a Group I fruit or a permitted combination exclusively of Group I fruits, 47 parts by weight of the fruit ingredient to each 55 parts by weight of the saccharine ingredient; and (ii) in all other cases, 45 parts by weight of the fruit ingredient to each 55 parts by weight of the saccharine ingredient. The weight of the fruit ingredient shall be determined in accordance with paragraph (d)(2) of this section, and the weight of the saccharine ingredient shall be determined in accordance with paragraph (d)(5)

of this section.

(2) Any requirement with respect to the weight of any fruit, combination of fruits, or fruit ingredient means:

(i) The weight of fruit exclusive of the weight of any sugar, water, or other substance added for any processing or packing or canning, or otherwise added to such fruit.

(ii) In the case of fruit prepared by the removal, in whole or in part, of pits, seeds, skins, cores, or other parts; the weight of such fruit, exclusive of the weight of all such substances removed therefrom.

(iii) In the cases of apricots, cherries, grapes, nectarines, peaches, and all varieties of plums, whether or not pits and seeds are removed therefrom; the weight of such fruit, exclusive of the weight of such pits and seeds.

(iv) In the case of concentrated fruit, the weight of the properly prepared fresh fruit used to produce such concentrated fruit.

(3) The term *concentrated fruit* means a concentrate made from the properly prepared edible portion of mature fresh or frozen fruits by removal of moisture with or without the use of heat or vacuum, but not to the point of drying. Such concentrate is canned or frozen without the addition of sugar or other sweetening agents and is identified to show or permit the calculation of the weight of the properly prepared fresh fruit used to produce any given quantity of such concentrate. The volatile flavoring material or essence from such fruits may be captured during concentration and separately concentrated for subsequent addition to the concentrated fruit either directly or during manufacture of the preserve or jam, in the original proportions present in the fruit.

(4) The weight of any optional saccharine ingredient means the weight of the solids of such ingredient.

(5) The soluble-solids content of the finished jam or preserve is not less than 65 percent, as determined by the method prescribed in "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th Ed. (1980), section 22.024, under "Soluble Solids by Refractometer in Fresh and Canned Fruits, Jellies, Marmalades, and Preserves--Official Final Action," which is incorporated by reference, except that no correction is made for water-insoluble solids. Copies may be obtained from the AOAC INTERNATIONAL, 481 North Frederick Ave., suite 500, Gaithersburg, MD 20877, or may be examined at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:*http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(e)(1) The name of each preserve or jam for which a definition and standard of identity is prescribed by this section is as follows:

(i) If the fruit ingredient is a single fruit, the name is "Preserve" or "Jam", preceded or followed by the name or synonym whereby such fruit is designated in paragraph (b) of this

section.

(ii) If the fruit ingredient is a combination of two, three, four, or five fruits, the name is "Preserve" or "Jam", preceded or followed by the words "Mixed fruit" or by the names or synonyms whereby such fruits are designated in paragraph (b) of this section, in the order of predominance, if any, of the weights of such fruits in the combination.

(2)*Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter, except that:

(i) The name(s) of the fruit or fruits used may be declared without specifying the particular form of the fruit or fruits used.

(ii) When the optional ingredients listed in paragraphs (c) (3), (4), and (5) of this section are declared on the label, the declaration may be followed by the statement "used as needed" on all preserves or jams to which they are customarily, but not always, added to compensate for natural variations in the fruit ingredients used.

[42 FR 14445, Mar. 15, 1977, as amended at 47 FR 11831, Mar. 19, 1982; 49 FR 10101, Mar. 19, 1984; 54 FR 24895, June 12, 1989; 58 FR 2882, Jan. 6, 1993; 63 FR 14035, Mar. 24, 1998]

Sec. 150.161 Artificially sweetened fruit preserves and jams.

(a) The artificially sweetened fruit preserves or artificially sweetened fruit jams for which definitions and standards of identity are prescribed by this section are the viscous or semisolid foods made from a fruit ingredient as specified in paragraph (b) of this section and an artificial sweetening ingredient as specified in paragraph (c) of this section, and with or without water and a jelling ingredient as specified in paragraph (d) of this section. The quantity of the fruit ingredient amounts to not less than 55 percent by weight of the finished food. The article is sealed in containers and so processed by heat, either before or after sealing, as to prevent spoilage. Such food may also contain one or more of the following optional ingredients:

(1) Spice, spice oil, spice extract.

(2) A vinegar, lemon juice, lime juice, citric acid, lactic acid, malic acid, tartaric acid, fumaric acid, or any combination of two or more of these, in a quantity which reasonably compensates for deficiency, if any, of the natural acidity of the fruit ingredient.

(3) Sodium citrate, sodium acetate, sodium tartrate, monosodium phosphate, disodium phosphate, trisodium phosphate, sodium potassium tartrate, potassium citrate, potassium acid tartrate, or any combination thereof, in an amount not exceeding 2 ounces avoirdupois per 100 pounds of the finished food.

(4) Sodium hexametaphosphate in an amount not exceeding 8 ounces avoirdupois per 100 pounds of the finished food.

(5) Purified calcium chloride, calcium citrate, calcium gluconate, calcium lactate, calcium sulfate, monocalcium phosphate, potassium chloride, or any combination of two or more of these salts, in a quantity reasonably necessary to enable the jelling ingredients to produce a jelled finished product.

(6) Ascorbic acid, sorbic acid, sodium sorbate, potassium sorbate, sodium propionate, calcium propionate, sodium benzoate, benzoic acid, methylparaben (methyl-*p*- hydroxybenzoate), propylparaben (propyl-*p*- hydroxybenzoate), or any combination of two or more of these, in a quantity reasonably necessary as a preservative but not to exceed 0.1 percent by weight of the finished food.

(b) The fruit ingredient referred to in paragraph (a) of this section is any one, or any combination of two, three, four, or five of the fruit ingredients complying with the requirements of 150.160 (b) and (c). Except as paragraph (d) of this section permits the use of pectin, carrageenan, or salts of carrageenan standardized with nutritive sweetener, no nutritive sweetening ingredient is added, either directly or indirectly, to the fruit ingredient used to make artificially sweetened fruit preserves or artificially sweetened fruit jam.

(c) The artificial sweetening ingredients referred to in paragraph (a) of this section are saccharin, sodium saccharin, calcium saccharin, or any combination of two or more of these.

(d) The jelling ingredients referred to in paragraph (a) of this section are pectin, agar-agar, carob bean gum (also called locust bean gum), guar gum, gum karaya, gum tragacanth, algin (sodium alginate), sodium carboxymethylcellulose (cellulose gum), methylcellulose (meeting U.S.P. requirements and with methoxy content not less than 27.5 percent and not more than 31.5 percent on a dry-weight basis), carrageenan or salts of carrageenan complying with the requirements of 172.620 or 172.626 of this chapter, or any combination of two or more of these. Pectin may be standardized with a nutritive sweetening ingredient, but such sweetening ingredient shall not amount to more than 44 percent by weight of the standardized pectin and the quantity of such standardized pectin used shall not exceed 3 percent by weight of the finished food. Carrageenan or salts of carrageenan may be standardized with a nutritive sweetening ingredient, but such sweetening ingredient shall not amount to more than 25 percent by weight of the standardized carrageenan or salts of carrageenan and the quantity of such standardized carrageenan or salts of carrageenan used shall not exceed 2 percent by weight of the finished food.

(e) The name of each artificially sweetened fruit preserve or artificially sweetened fruit jam for which a definition and standard of identity is prescribed by this section consists of the words "artificially sweetened" immediately followed by the name prescribed by 150.160(e)(1) for the fruit preserves or jams which correspond in fruit ingredient to the artificially sweetened article. The words "artificially sweetened" shall be prominently and conspicuously displayed in letters not smaller than the largest letter used in any other word in the name of the food.

(f)(1) The jelling ingredient used shall be named on the label by a statement "___ added" or "with added ___", the blank being filled in with the common name of the jelling ingredient used.

(2) When one of the optional ingredients specified in paragraph (a)(1) of this section is used, the label shall bear the statement, "___ added" or "with added ___", the blank being filled in with the words "spice", "spice oil", or "spice extract" as appropriate, but in lieu of the word "spice" in such statement the common name of the spice may be used.

(3) When the optional ingredient specified in paragraph (a)(4) of this section is used, the label shall bear the words "sodium hexametaphosphate added" or "with added sodium hexametaphosphate".

(4) When any optional ingredient listed in paragraph (a)(6) of this section is used, the label shall bear the statement "___ added as a preservative", the blank being filled in with the common name by which the preservative ingredient used is designated in paragraph (a)(6) of this section.

(g) Wherever the name of the food appears on the label of the artificially sweetened fruit preserve or artificially sweetened fruit jam so conspicuously as to be easily seen under customary conditions of purchase, the words and statements specified in this section, showing the optional ingredients used, shall immediately and conspicuously precede or follow such name without intervening written, printed, or graphic matter, except that the varietal name of the fruit used in preparing such preserve or jam may so intervene.

(h)*Label declaration.* Each of the ingredients used in the food shall be declared on the label as required by the applicable sections of parts 101 and 130 of this chapter.

[42 FR 14445, Mar. 15, 1977, as amended at 58 FR 2882, Jan. 6, 1993]

Authority: 21 U.S.C. 321, 341, 343, 348, 371, 379e.
Source: 42 FR 14445, Mar. 15, 1977, unless otherwise noted.

http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/cfrsearch.cfm?cfrpart=150