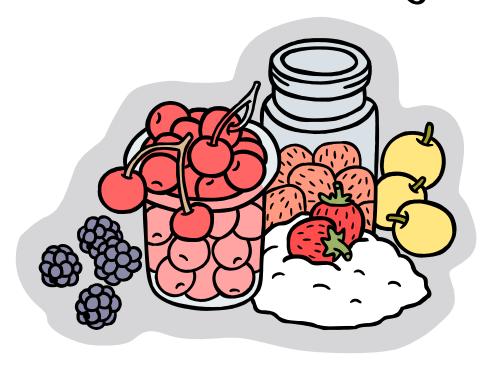
FOOD PRESERVATION

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ARTIFICIAL SWEETENERS



Low Sugar Alternatives for Jams and Jellies

Allison M. Oesterle National Center for Home Food Preservation April 2004

If you have found yourself wondering what to do with the abundance of fruits you have from the summer harvest, consider turning them into jams and jellies that will last throughout the year. Jams and jellies are one of the simplest and most rewarding ways to preserve your summer fruits. Even though most jams and jellies are very sweet, there are some excellent low- and no-sugar alternatives. "Regular" pectin recipes required the amount of sugar listed with them in order to obtain a satisfactory gel, but there are four methods to produce low- and no-sugar jams and jellies:

The first method is to use specially modified pectin. These pectins are labeled as "light," "less sugar needed," or "no sugar needed." The box of packaged pectin will come with recipes that give options for using no sugar, less sugar, or sugar substitutes. Using these pectinadded methods allows you to store your reduced-sugar product at room temperature.

Another method is using regular pectin with special recipes. Some tested recipes are formulated so that the gel forms with regular pectin without needing to add the usual amount of sugar. Keep in mind that there is some sugar in the regular pectin. These recipes often use sugar substitutes for additional sweetening.

A long-boil method can be used to make no- or low-sugar jams. The fruit pulp is boiled until it thickens and resembles a jam, but these spreads will not be true jams with pectin gels. Sugar substitutes can be added to taste for sweetening these products. It is best to use tested recipes.

Finally, there are some recipes that use gelatin as the thickening agent in jams and jellies. This method allows you to control the amount of sugar that is added to the product. These spreads usually have the sugars from fruit juices that are used for the flavoring and sugar substitutes for sweetness. Jellied products thickened with gelatin will require refrigeration.

Jams and jellies made with traditional recipes using lots of sugar or by the first three methods listed above for reduced sugar options will require a short process in a boiling water canner to be kept at room temperature in a sealed jar. Once opened, they all require refrigerated storage. Directions for using a boiling water canning process for jams and jellies can be found at:

http://www.uga.edu/nchfp/publications/uga/uga_processing_j_j.pdf.

Additional recipes and canning information can be found at the website of the National Center for Home Food Preservation, hosted by the College of Family and Consumer Sciences at the University of Georgia: http://www.homefoodpreservation.com.

While there is an abundance of ways to make jams and jellies, keep in mind that following well tested recipes is your best bet for getting a successful gel. Try making jams and jellies using various methods to determine which you like best.

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Can Splenda® (sucralose) be used in preserving food?

Granular Splenda® does not provide preservative properties like sugar. There has not been any published research work with using sucralose in the canning of fruits at home. If one uses Splenda® instead of sugar, our best assumption at this time is that the texture and color preserving aspects of sugar syrup won't be there. The expectation is that the result would be like canning in water except for the additional sweetness contributed by the Splenda®. The USDA fruit canning directions do allow for water canning, as there is adequate preservation for safety from the heat and not sugar. There should be no reason why Splenda® cannot be used in these heat-processed products, as it is heat stable, but some people do notice an aftertaste in other products, so it's possible it might change in flavor a little over storage time.

In other cases, where sugar is important, like some preserves or pickled fruits, it is not recommended that substitution of Splenda® be used for sugar if the product is to be canned for shelf stability. Splenda® cannot be used in traditional Southern preserves, like fig, peach or pear preserves, which are whole or uniform pieces of fruit in very thick sugar syrup. (These preserves are not jam or pectin gel products.) Sugar is required for the preservation of these products as published, with very short boiling water canner processes. Without that sugar, they also become like fruit canned in water and the longer fruit canning process times would be needed.

You could use Splenda® as the optional sweetener in a jam or jelly made with a no-sugar needed pectin, such as Mrs. Wages™ Lite Home Jell® Fruit Pectin or Ball® No-Sugar Needed Pectin. With these low-methoxyl pectins, no sugar is required at all. Sugar substitutes can be added as desired simply for flavor. The package inserts with these pectin's give instructions on when to add the sugar substitutes (usually after all the cooking, right before filling the jars). We have not yet tried Splenda® with these pectins with an extensive variety of fruits, however.

There are some freezer jam recipes at this manufacturer's website, although there is a qualification that the site is intended for Canadian users only: http://www.splenda.ca/en/recipes/preserves/.

Prepared by the National Center for Home Food Preservation, July 2004.

RECIPES

No-Sugar-Needed Strawberry Jam

Adapted from Kraft Foods

Makes: About 3 (1-cup) jars or 48 servings, 1 Tbsp. each

3 cups prepared strawberries (buy about 3 pt. fully ripe strawberries)

3/4 cup water

1 box SURE.JELL for Lower Sugar Recipes Fruit Pectin

1/2 cup SPLENDA® No Calorie Sweetener, Granular or 12 SPLENDA® Packets No Calorie Sweetener

BRING boiling-water canner, half full with water, to simmer. Wash jars and screw bands in hot soapy water; rinse with warm water. Pour boiling water over flat lids in saucepan off the heat. Let stand in hot water until ready to use. Drain jars well before filling.

STEM and crush strawberries thoroughly, one layer at a time. Measure exactly 3 cups prepared fruit into 6- or 8-quart saucepot. Stir in water. Gradually add pectin, stirring until well blended.

BRING mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly. Boil exactly 1 minute, stirring constantly. Remove from heat. Stir in SPLENDA® Granular or SPLENDA® Packets. Skim off any foam with metal spoon.

LADLE immediately into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with 2-piece lids. Screw bands tightly. Place jars on elevated rack in canner. Lower rack into canner. (Water must cover jars by 1 to 2 inches. Add boiling water, if necessary.) Cover; bring water to gentle boil. Process 10 minutes. Remove jars and place upright on towel to cool completely. After jars cool, check seals by pressing middle of lid with finger. (If lid springs back, lid is not sealed and refrigeration is necessary.)

Great Substitute

Prepare as directed, substituting 1 thawed can (12 oz.) frozen white grape juice or apple juice concentrate for the 3/4 cup water. Makes about 4 (1-cup) jars or 64 servings, 1 Tbsp. each. (*Nutrition Information Per Serving with White Grape Juice:* 20 calories, 5g carbohydrate, 4g sugars. *Nutrition Information Per Serving with Apple Juice:* 15 calories, 4g carbohydrate, 3g sugars.)

Diet Exchange:

Free

Nutrition (per serving)

Calories 5 Total fat 0g Saturated fat 0g Cholesterol 0mg Sodium 15mg Carbohydrate 2g Dietary fiber 0g Sugars 1g Protein 0g Vitamin A 0%DV Vitamin C 6%DV Calcium 0%DV Iron 0%DV

No-Sugar-Needed Triple Berry Jam

Adapted from Kraft Foods

Makes: About 3 (1-cup) jars or 48 servings, 1 Tbsp. each

1 cup each prepared ripe strawberries, raspberries and blueberries (buy about 1 pt. of each)

3/4 cup water

1 box SURE.JELL for Lower Sugar Recipes Fruit Pectin

1/2 cup SPLENDA® No Calorie Sweetener, Granular or 12 SPLENDA® Packets No Calorie Sweetener

BRING boiling-water canner, half full with water, to simmer. Wash jars and screw bands in hot soapy water; rinse with warm water. Pour boiling water over flat lids in saucepan off the heat. Let stand in hot water until ready to use. Drain jars well before filling.

STEM and crush strawberries; place exactly 1 cup of the crushed strawberries in 6- or 8-quart saucepot. Repeat with raspberries and blueberries. Stir in water. Gradually add pectin, stirring until well blended.

BRING mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly. Boil exactly 1 minute, stirring constantly. Remove from heat. Stir in SPLENDA® Granular or SPLENDA® Packets. Skim off any foam with metal spoon.

LADLE immediately into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with 2-piece lids. Screw bands tightly. Place jars on elevated rack in canner. Lower rack into canner. (Water must cover jars by 1 to 2 inches. Add boiling water, if necessary.) Cover; bring water to gentle boil. Process 10 minutes. Remove jars and place upright on towel to cool completely. After jars cool, check seals by pressing middle of lid with finger. (If lid springs back, lid is not sealed and refrigeration is necessary.)

Diet Exchange:

Free

Nutrition (per serving)

Calories 10 Total fat 0g Saturated fat 0g Cholesterol 0mg Sodium 15mg Carbohydrate 2g Dietary fiber 1g Sugars 1g Protein 0g Vitamin A 0%DV Vitamin C 2%DV Calcium 0%DV Iron 0%DV

Altitude Chart

At altitudes above 1,000 feet, increase processing time as indicated: 1,001 to 3,000 feet-increase processing time by 5 minutes; 3,001 to 6,000 feet-increase processing time by 10 minutes; 6,001 to 8,000 feet-increase processing time by 15 minutes; 8,001 to 10,000 feet-increase processing time by 20 minutes.

No-Sugar-Needed Peach Jam

Adapted from Kraft Foods

Makes: About 3 (1-cup) jars or 48 servings, 1 Tbsp. each

3 cups prepared peaches (buy about 3 lb. fully ripe peaches)

3/4 cup water

1 box SURE.JELL for Lower Sugar Recipes Fruit Pectin

 $1/2~\text{cup}~\text{SPLENDA} \ensuremath{\mathbb{R}}$ No Calorie Sweetener, Granular or 12 SPLENDA® Packets No Calorie Sweetener

BRING boiling-water canner, half full with water, to simmer. Wash jars and screw bands in hot soapy water; rinse with warm water. Pour boiling water over flat lids in saucepan off the heat. Let stand in hot water until ready to use. Drain jars well before filling.

PEEL, pit and finely chop or grind peaches. Measure exactly 3 cups prepared peaches into 6- or 8-quart saucepot. Stir in water. Gradually add pectin, stirring until well blended.

BRING mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly. Boil exactly 1 minute, stirring constantly. Remove from heat. Stir in SPLENDA® Granular or SPLENDA® Packets. Skim off any foam with metal spoon.

LADLE immediately into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with 2-piece lids. Screw bands tightly. Place jars on elevated rack in canner. Lower rack into canner. (Water must cover jars by 1 to 2 inches. Add boiling water, if necessary.) Cover; bring water to gentle boil. Process 10 minutes. Remove jars and place upright on towel to cool completely. After jars cool, check seals by pressing middle of lid with finger. (If lid springs back, lid is not sealed and refrigeration is necessary.)

Diet Exchange:

Free

Nutrition (per serving)

Calories 10 Total fat 0g Saturated fat 0g Cholesterol 0mg Sodium 15mg Carbohydrate 2g Dietary fiber 0g Sugars 2g Protein 0g Vitamin A 0%DV Vitamin C 0%DV Calcium 0%DV Iron 0%DV

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