

Causes and Possible Solutions for Problems with Jellied Fruit Products

<u>JELLY and JAMS</u>		
Problem	Cause	Prevention
Formation of crystals	1. Excess sugar.	1. Use a tested recipe and measure ingredients precisely
	2. Undissolved sugar sticking to sides of saucepot.	2. Dissolve all sugar as jelly cooks. If necessary, wipe side of pan free of crystals with damp cloth before filling jars.
	3. Tartrate crystals in grape juice.	3. Extract grape juice and allow tartrate crystals to settle out by refrigerating the juice overnight. Strain juice before making jelly.
	4. Mixture cooked too slowly or too long.	4. Cook at a rapid boil. Remove from heat immediately when jelling point is reached. Make small batches at a time; do not double tested recipes.
Bubbles	1. Air became trapped in hot jelly.	1. Remove foam from jelly or jam before filling jars. Ladle or pour jelly quickly into jar. Do not allow jelly or jam to start gelling before jars are filled.
	2. May denote spoilage. If bubbles are moving, do not use.	2. Follow recommended methods for applying lids and processing. (See Mold or Fermentation, below.)
Problem	Cause	Prevention
Too soft	1. Overcooking fruit to extract juice.	1. Avoid overcooking as this lowers the jelling capacity of pectin.
	2. Using too much water to extract the juice.	2. Use only the amount of water suggested in the instructions.
	3. Incorrect proportions of sugar and juice.	3. Follow recommended proportions.
	4. Undercooking causing insufficient	4. Cook rapidly to jelling point.

	concentration of sugar.	
	5. Insufficient acid.	5. Lemon juice is sometimes added if the fruit is acid deficient.
	6. Making too large a batch at one time.	6. Use only 4 to 6 cups of juice in each batch of jelly.
	7. Moving product too soon.	7. Do not move jellied products for at least 12 hours after they are made.
	8. Insufficient time before using.	8. Some fruits take up to 2 weeks to set up completely; plum jelly and jellies or jams made from bottled juices may take the longer time.
Syneresis or "weeping"	1. Excess acid in juice makes pectin unstable.	1. Maintain proper acidity of juice.
	2. Storage place too warm or storage temperature fluctuated.	2. Store processed jars in a cool, dark, and dry place. Refrigerate after opening.
Darker than normal color	1. Overcooking sugar and juice.	1. Avoid long boiling. Best to make small quantity of jelly and cook rapidly.
	2. Stored too long or at too high of temperature.	2. Store processed jars in a cool, dry, dark place and use within one year. Refrigerate after opening.
Cloudiness	1. Green fruit (starch).	1. Use firm, ripe fruit, or slightly under ripe.
	2. Imperfect straining of homemade juice.	2. Do not squeeze juice but let it drip through jelly bag.
	3. Jelly or jam allowed to stand before it was poured into jars or poured too slowly.	3. Pour into jars immediately upon reaching gelling point. Work quickly.
Problem	Cause	Prevention
Mold or Fermentation (Denotes spoilage; do not use.)	1. Yeasts and mold grow on jelly.	1. Process in a boiling water canner. Test seal before storing. Pre-sterilize jars when processed less than 10 minutes in boiling water.

	2. Imperfect sealing. (Common also with paraffin-covered jellies.)	2. Use new flat lids for each jar and make sure there are no flaws. Pretreat the lids per manufacturer's directions. Use ring bands in good condition – no rust, no dents, no bends. Wipe sealing surface of jar clean after filling, before applying lid.
	3. Improper storage.	3. Store processed jars in a dark, dry, cool place. Refrigerate after opening.
Too stiff or tough	1. Overcooking.	1. Cook jelly mixture to a temperature 8°F higher than the boiling point of water or until it "sheets" from a spoon.
	2. Too much pectin in fruit.	2. Use ripe fruit. Decrease amount if using commercial pectin.
	3. Too little sugar which requires excessive cooking.	3. When pectin is not added, try ¾ cup sugar to 1 cup juice for most fruits.

PRESERVES

Problem	Cause	Prevention
Not a characteristic fruit flavor	1. Overcooked or scorched.	1. Should be stirred frequently when mixture begins to thicken to prevent sticking. Cook only to jelling point.
	2. Poor quality fruit used.	2. Select only sound, good flavored fruit of optimum maturity.
Shriveled product	1. Syrup is too heavy.	1. Follow instructions for the type of fruit being preserved.
Tough product	1. Starting the cooking of fruit in syrup that is too heavy (too much sugar).	1. Cook each fruit according to directions; by evaporation the syrup concentration will gradually increase.
	2. Not plumping fruit properly.	2. Fruit should plump at least 24 hours covered in syrup before canned.
	3. Overcooking.	3. Cook according to directions.
Sticky, gummy product	1. Overcooking.	1. Follow recommended directions for each product. (Cook only until syrup is quite thick and fruit is fairly translucent.)
Darker than normal color	1. Cooking too large of quantities at one	1. It is usually best to cook not more than 2 to 4 pounds of prepared fruit at

	time.	a time.
	2. Cooked too slowly.	2. A better color is usually produced if the product is cooked rapidly.
	3. Overcooked.	3. Cook only until syrup is quite thick and the fruit is fairly translucent.
Loss of color	1. Improper storage.	1. Store processed jars in a dark, dry, cool place.
Mold or Fermentation (Denotes spoilage; do not use.)	1. Imperfect sealing.	1. Use new flat lids for each jar and make sure there are no flaws. Pretreat the lids per manufacturer's directions. Use ring bands in good condition – no rust, no dents, no bends. Wipe sealing surface of jar clean after filling, before applying lid.
	2. Yeast or mold growth.	2. Process in a boiling water canner. Test seal before storing. Pre-sterilize jars when processed less than 10 minutes in boiling water.
	3. Improper storage.	3. Store processed jars in a dark, dry, cool place. Refrigerate after opening.

For problems with jar seals, and other general canned food problems, see [Causes and Possible Solutions for Problems with Canned Foods](#).

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