

Troubleshooting Jelly and Jam Problems

When making jams and jellies every ingredient and processing step is critical. Following tested recipes and using fruit at the right maturity level can affect quality and safety of the canned good. Consider these problems and solutions when troubleshooting jelly and jam issues.

Problem: Formation of Crystals

Cause	Prevention
Excess sugar	Use a tested recipe and measure ingredients accurately.
Undissolved sugar sticking to sides of saucepot	Dissolve all sugar as jelly cooks. If necessary, scrap side of pan free of sugar crystals while cooking jelly.
Tartrate crystals in grape juice	Extract grape juice and allow tartrate crystals to settle out by refrigerating the juice overnight. Strain juice before making jelly.
Mixture cooked too slowly or too long	Cook at rapid boil. Remove from heat immediately when jelling point is reached. Make small batches rather than doubling recipes.

Problem: Bubbles

Cause	Prevention
Air trapped in hot jelly	Remove foam before filling jars. Ladle or pour jelly quickly into jar. Do not allow jelly or jam to start gelling before jars are filled.
Spoilage - Do not use if bubbles are moving.	Follow recommended methods for applying lids and processing.



Problem: Cloudiness

Cause	Prevention
Green fruit (starch)	Use firm, ripe fruit or slightly underripe.
Imperfect straining of homemade juice	Do not squeeze juice but let it drip through jelly bag.
Jelly or jam allowed to stand before it was poured into jars or poured too slowly	Pour into jars immediately upon reaching jelling point. Work quickly.

Problem: Mold or Fermentation

Cause	Prevention
Yeasts and mold on jelly	Process in a boiling water canner. Test seal before storing. Pre-sterilize jars when processed less than 10 minutes in boiling water.
Imperfect sealing (common with paraffin covered jellies)	Use new flat lids for each jar and make sure there are no flaws. Pretreat lids per manufacturer's directions. Use ring bands in good condition - no rust, no dents, no bends. Before applying lids, wipe sealing surface of jar clean.
Improper storage	Store processed jars in a dark, dry, cool place. Refrigerate after opening.





Problem: Too stiff or tough

Cause	Prevention
Overcooking	Cook jelly mixture to a temperature of 8°F higher than the boiling point of water or until it "sheets" from a spoon.
Too much pectin in fruit	Use ripe fruit. Decrease amount of commercial pectin.
Too little sugar	When pectin is not added, try 3/4 cup sugar to 1 cup juice for most fruits.



Problem: Syneresis or "weeping"

Cause	Prevention
Excess acid in juice makes pectin unstable	Maintain proper acidity of juice.
Storage place too warm or storage temperature fluctuated	Store processed jars in a cool, dark, and dry place. Refrigerate after opening.

Problem: Darker than normal color

Cause	Prevention
Overcooking sugar and juice	Avoid long boiling. Best to make small quantity of jelly and cook rapidly.
Stored too long or at too high of temperature	Store processed jars in a cool, dry, dark place and use within one year. Refrigerate after opening.

Adapted from the National Center for Home Food Preservation website at: nchfp.uga.edu

Problem: Too soft

Cause	Prevention
Overcooking fruit to extract juice	Avoid overcooking as this lowers the jelling capacity of pectin.
Using too much water to extract the juice	Use only the amount of water suggested in the instructions.
Incorrect proportions of sugar and juice	Follow recommended proportions.
Undercooking causing insufficient concentration of sugar	Cook rapidly to jelling point.
Insufficient acid	Lemon juice is sometimes added if the fruit is not acidic enough.
Making too large a batch at one time	Use only 4 to 6 cups of juice in each batch of jelly.
Moving product too soon	Do not move jellied products for at least 12 hours after they are made.
Insufficient time before using	Some fruits take up to 2 weeks to set up completely; plum jelly and jellies or jams made from bottled juiced may take longer time.