



Jams & Jellies Problem Solver

The Jams & Jellies Problem Solver is designed to help you identify the general conditions that may occur when fresh preserving jams, jellies and other soft spreads. If your jams or jellies have not set after 2 weeks and you followed the recipe instructions completely and accurately, you may remake it in order to achieve a firmer set.

| CONDITION | CAUSE | PREVENTION/SOLUTION |
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| Soft spread is tough or stiff. | There was too much natural pectin in fruit. | Use fruit that is fully ripe, not under-ripe. |
| | Soft spread was cooked too long. | When commercial pectin is not added, use a gel stage test to check doneness before filling jars. |
| | Too much sugar was used. | If commercial pectin is not used, 170 g to 225 g sugar for each 240 mL of juice or fruit should be adequate. Use standard dry measuring cups and level sugar even with the top edge of the cup. |
| Soft spread ferments (bubbles are apparent in or on top of spread). <i>If spoilage is evident, do not use.</i> | Soft spread was not brought to the correct temperature before filling jars and/or was under-processed, preventing all spoilage microorganisms, such as yeasts, from being destroyed. | Bring soft spread to a full rolling boil when using commercial pectin or to 105°C when preparing a recipe with no added pectin. Fill jars and apply lids and bands, one at a time, as instructed in preserving recipe. Process in a waterbath preserver. Refer to recipe for correct processing time. |
| Soft spread weeps (liquid forms at the top). | Syneresis, or “weeping,” occurs in quick-setting soft spreads and is due to an imbalance of acid and pectin in fruit mixture or the quality of pectin in the fruit. | None. |
| | Storage conditions were not ideal. | Store soft spreads in a dry, dark place between 10° and 20°C. |
| Soft spread contains glass-like particles (crystals in grape spreads). | Too much sugar was used. | Follow recipe instructions and sugar measurements. Use standard dry measuring cups and level sugar even with the top edge of the cup. |



| CONDITION | CAUSE | PREVENTION/SOLUTION |
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| Soft spread contains glass-like particles (crystals in grape spreads). (continued) | The mixture may have been undercooked. When the cooking time is too short, sugar does not dissolve completely and does not mix thoroughly with the juice or fruit. | Follow cooking instructions closely. |
| | The mixture may have been cooked too slowly or for too long. Long, slow cooking results in too much evaporation of the water content of the fruit. | Follow cooking instructions closely. |
| | Undissolved sugar that was sticking to the pan washed into the soft spread as it was poured. | Carefully wipe side of pan free of sugar crystals with a spatula during cooking or with a damp cloth before filling jars. Instead of pouring, ladle soft spread into jars. |
| | For grape products: crystals were formed by tartaric acid, a natural substance in grapes from which cream of tartar is made. | Allow grape juice to stand in the refrigerator for 12 to 24 hours. Ladle juice from bowl, being careful not to disturb sediment that may have settled on the bottom, and strain through a dampened jelly bag or several layers of dampened cheesecloth. |
| Soft spread made with no added pectin is too soft. | Proportions of sugar, juice or fruit, acid and pectin were not in balance. | Follow instructions precisely for soft spreads with no added pectin. |
| | Too large a batch was made at one time. | Use no more than 950 mL to 1.4 L of juice or fruit in each batch. Never make a double batch. |
| | Fruit was too ripe. | Fruit selected should be fully ripe but not over-ripe. Using some slightly under-ripe (but not green) fruit will help because it has more natural pectin to aid with gelling. |
| | Soft spread was not boiled to the correct temperature. | Use a <u>gel stage test</u> to check doneness before packing jars. |



| CONDITION | CAUSE | PREVENTION/SOLUTION |
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| Soft spread is cloudy. | Fruit used was too green or under-ripe. | Fruit should be firm and fully ripe. |
| | Fruit was cooked too long before being strained to collect juice. | Fruit should be cooked only until it is tender. |
| | Some fruit pulp may have been extracted when juice was squeezed from fruit. | To obtain the clearest jelly possible, let juice drain through a dampened jelly bag or several layers of dampened cheesecloth. Do not squeeze jelly bag. |
| | Soft spread was ladled into jars too slowly. | Work quickly to fill jars before soft spread starts to set. |
| Soft spread made with added pectin is too soft. | Soft spread mixture was allowed to stand before it was ladled into jars. | When cooking time is complete, ladle soft spread into jars and process immediately. |
| | Proportions of sugar, juice or fruit, acid and pectin were not in balance. | Measure precisely and make one recipe at a time. Never make a double batch. |
| | Too large a batch was made at one time. | Use no more than 950 mL to 1.4 L of juice or fruit in each batch. |
| | Fruit used was too ripe. | Fruit selected should be fully ripe but not over-ripe. Using some slightly under-ripe (but not green) fruit will help because it has more natural pectin to aid with gelling. |
| | Soft spread was not boiled at a "full rolling boil" for the time indicated in the recipe. | Bring soft spread to a full rolling boil that cannot be stirred down and boil hard for the time indicated in the recipe. |
| The wrong type of pectin was used, the wrong quantity of pectin was used and/or proportions of ingredients used were not according to the recipe. | Use only the type and quantity of pectin called for in the recipe. Pectin types are not interchangeable. Ingredients must be added in the order specified in the recipe (the order depends on the type of pectin you are using). | |



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| Soft spread made with added pectin is too soft. <i>(continued)</i> | Fruit was puréed, not crushed or chopped, and therefore too much natural pectin was broken down, causing excess liquid. | Crush or chop fruit according to the recipe instructions; do not purée in a blender or food processor, unless specified in recipe. |
| Jelly or soft spread is filled with bubbles. <i>If spoilage is evident, do not use.</i> | If bubbles are moving when the jar is stationary, the soft spread is spoiling. | Process all soft spreads in a waterbath preserver for the time indicated in the recipe. |
| | If bubbles are not moving when the jar is stationary, air was trapped in the soft spread as it gelled. | Ladle soft spread quickly into the jar, holding the ladle near the rim of the jar or funnel. Use nonmetallic utensils to free bubbles before applying lid. |
| Soft spread or fruit mixture has mold. <i>Do not use.</i> | Mixture was not fully heated to a temperature high enough to destroy molds before jars were filled. | Bring soft spread to a full rolling boil that cannot be stirred down and boil hard for the time indicated in the recipe before filling jars. |
| | Food was not processed long enough to destroy molds, allowing them to grow on the surface of the food. | Process all filled jars in a waterbath preserver for the time indicated in the recipe. |
| | Headspace was too great to allow creation of an adequate vacuum seal. | Leave 0.65 cm headspace in soft spreads. |
| Fruit floats in soft spread: mixture gels, but fruit solids and clear jelly separate into layers. | Immature fruit or porous, textured fruit was used. | Use fully ripe, freshly picked fruit and berries, either fresh or frozen. Some imported out-of-season fruits are firm textured and tend to float more easily. |
| | Sugar content of soft spread is too high. | Measure carefully and be sure to cook mixture at a full rolling boil for the time indicated in the recipe before filling jars. |
| | Air in fruit — may be dependent on growing season. | None. |