

FreshPreserving™ Problem Solver



| CONDITION | CAUSE | PREVENTION/SOLUTION |
|---|--|---|
| Seal fails. Use food immediately, refrigerate immediately or correct cause and reprocess within 24 hours. | Failure to heat process filled jars using the correct method and an adequate length of time. | Heat process <i>all</i> filled jars using the method and time recommended in a tested fresh preserving recipe for the specific food and jar size. |
| | Improper preparation of lids and/or adjustment of screw bands. | a) Carefully follow manufacturer's preparation directions for lids and jars. (Heat lids in hot water; do not boil.) b) Using your fingers, screw bands down until resistance is met, then increase to fingertip tight. Do not force. Do not use a lid wrench to apply bands. |
| | Improper headspace. | Use headspace recommended in recipe for food product being preserved. |
| | Food particles on jar rim. | Carefully clean jar rims and threads with a clean, damp cloth before applying lids and screw bands. |
| | Failure to adjust processing time or pressure for high altitude. | Know the altitude of your home and adjust processing time or pressure as needed. Click here for altitude charts. |
| Jars seals, or appears to seal, and then unseals. If spoilage is evident, do not use. | Minimum or inadequate vacuum, caused by underprocessing or not heat processing filled jars. | Heat process <i>all</i> filled jars using the method and time recommended in a tested fresh preserving recipe for the specific food and jar size. |
| | Particles of food left on sealing surface. | Carefully clean jar rims before applying closures. |
| | Crack or chip in jar rim. | Check jars before packing and discard any with uneven, chipped sealing surfaces. |
| | Excess air left in jar. | Use headspace recommended in recipe and slide a nonmetallic utensil between food and jar to release trapped air before applying lids and screw bands. |



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| Lid buckles, appearing to warp or bulge upward under the screw band. <i>If spoilage is evident, do not use.</i> | When buckling is apparent immediately after heat processing, cause is overly tight application of screw bands. | Using your fingers, screw bands down until resistance is met, then increase to fingertip tight. Do not force. Do not use a lid wrench to apply bands. |
| | When buckling becomes apparent during storage, cause is food spoilage; heat processing has been insufficient to destroy all spoilage microorganisms. | a) Heat process <i>all</i> filled jars using the method and time recommended in a tested fresh preserving recipe for the specific food and jar size. b) Adjust processing time or pressure for higher altitudes. <i>Note: Foods on which lids buckle during storage must be discarded in a way that prevents consumption by both humans and animals.</i> |
| Liquid is lost during processing. <i>Do not open jar to replace liquid.</i> | Food not heated before being packed into jars. | Use the <u>hot pack method</u> . |
| | Food packed too tightly. | Pack food loosely when using the hot pack method. |
| | Air bubbles not removed before lids and screw bands were applied. | Slide a nonmetallic utensil between food and jar to release trapped air. Repeat 2 to 3 times. |
| | Light band torque: screw bands applied too loosely. | With your fingers, screw bands down until resistance is met, then increase to fingertip tight. Do not force. |
| | Pressure canner not operated correctly. | Regulate heat continuously so that pressure does not fluctuate, avoiding sudden changes to the heat level. |
| | Starchy foods absorbed liquid. | Pack starchy foods, such as corn, loosely. |



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| Liquid is lost immediately after processing (siphoning). | Jars removed from canner before internal pressure/temperature could stabilize/acclimate to outside temperature. | a) For boiling water canner, when processing time is complete, remove lid and turn heat off. Before removing jars, wait 5 minutes. b) For pressure canner, follow manufacturer's directions for cooling prior to removing canner lid. |
| Food darkens in top of jar: | Liquid did not cover food. | Completely cover food solids with liquid, making sure headspace is adequate, before applying closures. |
| | No heat processing to inactivate enzymes. | Heat process <i>all</i> filled jars using the method and time recommended in a tested fresh preserving recipe for the specific food and jar size. |
| | Packing and processing did not expel air. | Use the hot pack method when indicated in recipe. Heat process <i>all</i> filled jars using the method and time recommended in a tested fresh preserving recipe for the specific food and jar size. |
| | Excess air sealed in jar due to improper headspace or bubble removal. | Use headspace recommended in recipe and slide a nonmetallic utensil between food and jar to release trapped air before applying lids and screw bands. |
| Food becomes black, brown or gray. | Natural chemical substances (tannins, sulfur compounds and acids) in food react with minerals in water or with metal containers or utensils used in preparing the food. | a) Use soft water. b) Use stainless steel cooking pans, stainless steel or glass bowls, and heat resistant nonmetallic utensils. Avoid using brass, copper, iron, aluminum, zinc or chipped enamelware. |
| Black spots appear on underside of metal lid. | Natural compounds in some foods cause brown or black deposits on the underside of the lid. <i>This deposit is harmless and does not mean the food is unsafe to eat.</i> | None. |
| Rust appears on underside of metal lid. | Improper coating or scratches on underside of lid. | a) Use lids made by an established, reputable manufacturer. b) Use only nonmetallic utensils when handling lids. Use a magnetic wand, rather than tongs, to lift lids from hot water. |