



Fresh Preserving 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. 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.
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 preserver 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 preserver before internal pressure/temperature could stabilize/acclimate to outside temperature.	a) For waterbath preserver, when processing time is complete, remove lid and turn heat off. Before removing jars, wait 5 minutes. b) For pressure preserver, follow manufacturer's directions for cooling prior to removing preserver 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.