

FILL YOUR PANTRY

Preserving Apples | Tips



APPLE YIELDS

Bushel: 42 to 48 pounds, 18 to 20 quarts of apple slices	4-quart basket: hold 5 pounds of apples
1 pound: 4 small, 3 medium, or 2 large apples	1 pound: 3 cups diced or 2- ³ / ₄ cups pared and sliced
2 medium apples: 1 cup grated apples	9-inch pie: 5 to 7 medium apples

RECIPES

Choose scientifically-tested preservation recipes rather than recipes found online, such as on Pinterest or other social media, which may not be safe. Recipes from trusted sources have been tested for many different factors to prevent potentially deadly bacteria from forming.

- [USDA Guide to Home Canning](#)
- [University Cooperative Extensions](#)
- [The National Center for Home Food Preservation](#)
- [So Easy to Preserve, 6th Edition](#)

Some commercial canning companies also provide scientifically tested recipes.

APPLE PEELS

For applesauce or apple butter

Tested canning recipes recommend using peeled apples for applesauce or apple butter. Leaving the peel on the apple could alter processing times and affect food safety.

Natural apple pectin

Pectin is found in apple skins and cores. Apples with skins can be processed but must be stored in the freezer or refrigerator. Natural pectin is not a replacement for commercially-available liquid pectin or pectin powder.

Freezing unpeeled apples

For unpeeled apples, [University of Nebraska](#) recommends freezing apple slices on a tray, like a dry pack. Slice apples to desired thickness, treat for browning, and freeze in a single layer on a metal baking tray. Transfer frozen slices to a freezer bag and measure out as needed for recipes.

Frozen apples are best in cooked apple dishes. Use within 8 months for best quality.



COMMERCIAL PECTIN

Pectin packets

Recipes often use one standard commercial packet or box of pectin, which is typically 1.75 ounces.

Types of pectin

Commercially-purchased pectin is available in both liquid and powder forms, which are not interchangeable. Recipes are specific for the type of pectin used. Always confirm if the recipe calls for powdered or liquid pectin.

Liquid pectin is used for cooked fruit and sugar mixtures after cooking. Powdered pectin is added to unheated fruit.

Some commercial companies, such as Ball®, also sell pectin in bulk. If you are not using a standard box of pectin, determine how much pectin to add by visiting: <https://www.freshpreserving.com/pectin-calculator>.

SUGAR, SWEETENER, AND SYRUP PACKS

Honey dip

The [National Center for Home and Food Preservation](#) recommends mixing ½ cup sugar with 1-½ cups boiling water. Cool to lukewarm and add ½ cup honey. Place fruit in dip and soak 3 to 5 minutes. Remove, drain well, and place on dryer trays.

Sweeteners

Stevia is heat-stable and safe to use for canning, but the resulting apple texture and flavor will be different than compared to canning apples in a light sugar syrup.

Oregon State University published that you could try to can using cooking liquid or in water and then upon opening, sweeten with a sugar substitute.

[Penn State](#) was referenced saying that “stevia-based sweeteners are heat stable and may be used in canning fruit.”

Types of syrup

USDA Canning Guide recommends a medium syrup (30%) for sweet apples and a heavy syrup (40%) for tart apples. Most recipes yield nine pints and seven quarts.

Add ½ or ⅔ cup of syrup per pint, or 1 cup of syrup per quart. To make a small batch of heavy syrup pack (40% sugar), add 2-¾ cups of sugar to 4 cups of water to make 5-⅓ cups of syrup.

Adding spices to sugar pack

Follow a tested recipe, and add spices, such as cinnamon, after thawing and before cooking.

CIDER AND JUICE

Cider is raw apple juice that has not undergone filtration process to remove coarse particles of pulp or sediment.

MOTHER OF VINEGAR

In apple cider vinegar, a jelly-like layer called the "mother of vinegar" forms naturally during the fermentation process. A mix of yeast and bacteria, the mother counts as a probiotic; however its importance to health has not been supported by enough scientifically sound research.

APPLE BUTTER

Crockpot processing

Slow cookers are a safe option for making apple butter when using a tested recipe for canning and following directions carefully; however, the finished product must be stored in the refrigerator or freezer.

Consistency

Straining cooked apples through a colander or processing them through a food mill for apple butter helps to achieve the proper consistency for canning. Processing times may be different when the consistency of apple pieces changes, affecting food safety. Freeze or refrigerate product if not following a tested recipe exactly.

BROWNING

Using a pretreatment

Pretreatment can help to prevent enzymatic browning but is not necessary from a food safety perspective.

Grape juice

Due to its acidic nature, grape juice works in a pinch to prevent enzymatic browning but may cause some color and flavor change in apples. Using white grape juice may help prevent color change.

Non-browning apples

The USDA and FDA recently approved a genetically engineered, non-browning apple called the Artic® Apple, which does not brown after being cut.

Asthma and sodium bisulfide

For long-term storage of dried fruit, the [National Center for Home and Food Preservation](#) recommends sulfuring or using a sulfite dip as the best pretreatment. Alternative pre-treatments provide shorter-term storage options.

However, [pretreating with sodium bisulfide can leave sulfites in food, causing asthmatic reactions](#) in a small portion of the asthmatic population.

PROCESSING

Processing times

Follow tested recipes exactly, especially their processing times. Over-processing may reduce the product's quality and cause the pectin in jelly or jam to breakdown, leading to a runny, undesirable product.

Extending processing time beyond a recipe's recommendation does not replace the need to sterilize jars. Consider sterilizing jars in the boiling-water bath while preparing the jam or jelly ingredients to save time.

Splatters and spills

Reliable recipes recommend bringing jelly or jam to a boil, removing the hot mixture from heat, and pouring it immediately into hot, sterile jars.

Be sure to remove the mixture from heat after boiling to prevent splattering, which can cause burns.

AIR BUBBLES

As long as the jar is properly sealed and processed, and bubbles are not moving inside the jar after processing, the product is still safe.

Gently running a clean plastic knife through jarred, but not yet sealed, processed product can help to release air bubbles trapped inside. Avoid using a table knife to release air bubbles, as it may scratch, crack, or weaken the glass jar.

JARS, LIDS, AND RINGS

Storing and inspecting

After processing and cooling, rings can be removed from sealed jars before storing canned product. For best quality, store canned foods in a cool, dark place and use within one year.

Examine canned product as often as desired. Check for signs of spoilage, such as leaking, rising air bubbles inside the jar, unnatural color, or foul smell.

A swollen lid indicates the presence of yeast or spoilage bacteria-producing gas. Discard immediately.

One-piece lids

If not intended for canning, one-piece stainless steel lids with silicone rings are typically fine to use for refrigerator and freezer storage. Often, packaging will indicate if the lids are suitable for freezing, but always check with the manufacturer to be sure.

DEHYDRATING

Choosing a dehydrator

There are many different types of dehydrators, including vertical and horizontal air flow, and have many different features. Read more about what to look for in a dehydrator from the [National Center for Home Food Preservation](https://nchfp.uga.edu/how/dry/dehydrator.html): <https://nchfp.uga.edu/how/dry/dehydrator.html>

Drying temperatures

Dehydrating requires maintaining a low, constant temperature between 120°F and 140°F. If the oven cannot reach a low enough temperature, apples are at risk of cooking and scorching rather than drying.

Ovens with a "keep warm" option may work for drying, but use an oven thermometer to check the actual temperature of the oven to see if it can maintain a temperature around 150 to 140°F.

Dehydrating tips

It is better to over-dry than under-dry. When using dehydrator for the first time, check on the apples occasionally. Apples should be pliable and not stick together when folded.

In round dehydrators, the rack on the bottom, or closest to the heat, will dry apples faster than the top rack.

Drying methods

The only scientifically tested and recommended methods for drying food are using an electric dehydrator, oven drying, sun drying (in the correct conditions), air drying, or microwave drying, which is especially good for drying herbs and leafy vegetables.

Alternate drying methods found online or suggested by popular media may not be safe and should be avoided.

PRESSURE GAUGE TESTING

Testing dial gauges

Many county Extension offices test dial gauges as a service to residents. Call your local Extension office to schedule an appointment or to find out about testing events in your area. Visit University of Illinois Extension's website to find testing locations closest to you: go.illinois.edu/PressureCannerTesting

RESOURCES

Books

So Easy to Preserve, 6th Edition: setp.uga.edu

USDA Complete Guide to Home Canning: bit.ly/3z5ljpK

The Ball® Blue Book

Websites and Online Videos

National Center for Home Food Preservation: nchfp.uga.edu/

YouTube: What's Cooking with Mary Liz Wright: bit.ly/3plFDi5

From Garden Gates to Dinner Plates: go.illinois.edu/CottageFoods

University of Illinois Extension Food Preservation Resources: go.illinois.edu/PreserveFood

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