



K-STATE
Research and Extension

PRESERVE IT FRESH, PRESERVE IT SAFE STRAWBERRIES



When preserving fresh foods at home, follow proper techniques to prevent foodborne illness. These tested methods can be used to process strawberries.

Freezing

Quantity

A 24-quart crate of fresh strawberries weighs 36 pounds and yields 12 to 16 quarts. An average of 1 pound makes 1 pint of frozen berries.

Quality

Freeze strawberries or preserve them the day they are harvested for best quality. Pick when they reach an ideal maturity for eating fresh. Select fresh berries with a sweet flavor, deep uniform color, and firm texture. Smaller, misshapen, and seedy berries make good-quality jams.

Preparation

Remove stem caps from berries. Wash 1 to 2 quarts at a time and drain. Do not soak.

Procedure

Freezer manuals offer guidelines for the maximum amount that can be frozen at one time to maintain quality — usually 2 to 3 pounds of food for each cubic foot of freezer space.

To make a syrup pack: Mix and dissolve $2\frac{3}{4}$ cups of sugar in 4 cups of lukewarm water; chill before using. Add 1 cup syrup per quart of prepared fruit.

For a sugar pack: Mix $\frac{3}{4}$ cup dry sugar per quart of prepared fruit.

For dry or tray pack: Spread a single layer of strawberries on shallow trays and freeze. When frozen, package berries and return them to the freezer.

To package, fill pint- or quart-sized freezer bags, squeezing out the air. Leave 1 inch of headspace, seal, label, and freeze. Bags may be placed in reusable, rigid-plastic freezer containers before freezing for added protection against puncture and leakage. Dry packs need $\frac{1}{2}$ inch of headspace.

To use: Thaw berries at room temperature in the original package. For faster thawing, use a microwave or submerge berries in cool or lukewarm water.

Canning

Strawberries become mushy and lose color and flavor when canned. This practice is not recommended.

To learn more about water bath, steam, or pressure canning, see *How-to Guide to Water Bath Canning and Steam Canning* (MF3241) and *How-to Guide to Pressure Canning* (MF3242).

For all canning recipes, wash and sterilize jars and keep them hot. Preheating is optional for standard metal lids. If desired, heat in simmering but not boiling water. If using reusable plastic lid systems with rubber rings, follow the manufacturer's directions.

Strawberry Jam

Yield: About 8 half-pints or 4 pints

2 quarts crushed strawberries (about 4 to 5 pounds)
6 cups sugar

Wash and crush berries using a potato masher. Measure 2 quarts crushed strawberries. Combine berries and sugar in a large sauce pot. Slowly bring to boil, stirring occasionally until sugar dissolves. Rapidly cook to the gelling point (220° F), which takes about 40 minutes. As the mixture thickens, stir frequently to prevent sticking. Remove from heat. Skim to remove excess foam. Pour hot jam into hot jars, leaving $\frac{1}{4}$ inch of headspace. Wipe jar rims and apply lids and rings fingertip-tight. Process in a boiling water bath or steam canner according to directions in Table 1. Turn off heat and remove canner lid. Let jars cool 5 minutes before removing them from canner. Do not retighten bands. Cool completely, check seals, label, and store.

Strawberry-Rhubarb Jelly

Yield: 7 half-pints

- 1½ pounds red stalks of rhubarb (6 cups)
- 1½ quarts ripe strawberries (fresh or previously frozen, unsweetened)
- 6 cups sugar
- 2 3-oz. pouches liquid pectin

To prepare juice: Wash and cut rhubarb into 1-inch pieces. Wash, stem, and crush strawberries. Puree fruits in a blender or food processor. Pour puree into a jelly bag or four layers of cheesecloth and gently squeeze out juice.

To make jelly: Measure 3½ cups of juice into a large saucepan. Add sugar and mix well. Bring to a boil over high heat, stirring constantly. Immediately stir in the pectin. Bring to a full rolling boil and boil hard for 1 minute, stirring constantly. Remove from heat; quickly skim off foam. Immediately pour the jelly into hot canning jars, leaving ¼ inch of headspace. Wipe jar rims, apply lids and rings fingertip-tight. Process jars for 5 minutes in a water bath or steam canner according to directions in Table 1. Turn off heat and remove canner lid. Let jars cool 5 minutes. Remove jars from canner, but do not retighten bands. Cool completely, check seals, label, and store.

Strawberry Jam – No Sugar Needed

- Yield:* 6 half-pints
- 2 quarts strawberries
 - 1 cup water
 - 1 package no sugar needed powdered pectin

Wash strawberries; drain. Stem and crush strawberries. Measure 5 cups. Combine strawberries and remaining ingredients in a large saucepot, stirring to dissolve pectin. Bring to a boil, stirring constantly. Add sweetener according to pectin package guidelines, if desired. Boil 1 minute, stirring constantly. If gel starts to form before 1 minute boil is complete, remove from heat. Ladle hot jam into hot jars, leaving ¼ inch of headspace. Remove air bubbles. Clean jar rim with a damp towel. Apply lids and rings fingertip-tight. Process in a water bath or steam canner according to directions in Table 1. Turn off heat and remove canner lid. Let jars cool 5 minutes. Remove jars from canner; do not retighten bands. Cool completely, check seals, label, and store.

Strawberry-Kiwi Jam

Yield: 6 half-pints

- 3 cups crushed strawberries (about 2 pounds)
- 3 kiwifruit, peeled and diced
- 1 tablespoon minced crystallized ginger
- 6 tablespoons Ball Classic Pectin
- 1 tablespoon lemon juice
- 5 cups sugar

Wash strawberries; drain. Remove stems and caps. Crush strawberries using a potato masher. Measure 3 cups crushed strawberries. Peel kiwifruit and dice. Combine strawberries, kiwi, ginger, pectin and lemon juice in a large saucepan. Bring mixture to a boil over medium-high heat, stirring to blend in pectin. Add sugar, stirring until sugar dissolves. Bring mixture to a rolling boil that cannot be stirred down. Boil hard for 1 minute, stirring constantly. Remove from heat. Skim off foam if necessary. Pour into hot jars, leaving ¼ inch of headspace. Remove air bubbles. Wipe jar rims, apply lids and rings fingertip-tight. Process in a water bath or steam canner according to directions in Table 1. Turn off heat and remove canner lid. Let jars cool 5 minutes. Remove jars from canner; do not retighten bands. Cool completely, check seals, label, and store.

Storing Jams and Jellies

Remove screw bands and check lid seals. If the center of the lid is indented, wash, dry, label, and store jar in a clean, cool, dark place. If the lid is unsealed, examine and replace the jar if defective, use new lids and reprocess as before. Wash screw bands and store separately. Jams and jellies are best consumed within one year.

Table 1. Recommended processing times in a water bath canner or steam canner.

| Product | Style of Pack | Jar Size | Minutes of processing at different altitudes (in feet) | | |
|----------------------------------|---------------|---------------------|--|-------------|-------------|
| | | | 0-1,000 | 1,001-3,000 | 3,001-6,000 |
| Strawberry Jam | Hot | Half-pints or pints | 15 | 20 | 25 |
| Strawberry-Rhubarb Jelly | Hot | Half-pints | 5 | 10 | 10 |
| Strawberry Jam – No Sugar Needed | Hot | Half-pints | 10 | 15 | 20 |
| Strawberry-Kiwi Jam | Hot | Half-pints | 10 | 15 | 20 |

Nutrition per 1 tablespoon jam or jelly

| | Calories | Carbohydrate (g) | Fat (g) | Vitamin C (mg) | Dietary fiber (g) |
|----------------------------------|----------|------------------|---------|----------------|-------------------|
| Strawberry Jam | 39.0 | 10.1 | 0.0 | 5.8 | 0.3 |
| Strawberry-Rhubarb Jelly | 47.0 | 12.0 | 0.0 | 5.5 | 0.8 |
| Strawberry Jam - No Sugar Needed | 4.47 | 1.1 | 0.0 | 8.22 | 0.3 |
| Strawberry-Kiwi Jam | 30.0 | 8.0 | 0.0 | 5.0 | 0.2 |

Nutrition per ½ cup frozen strawberries

| | Calories | Carbohydrate (g) | Fat (g) | Vitamin C (mg) | Dietary fiber (g) |
|------------|----------|------------------|---------|----------------|-------------------|
| Syrup pack | 73.0 | 18.0 | 0.3 | 47.0 | 2.0 |
| Sugar pack | 97.0 | 24.5 | 0.3 | 47.0 | 2.0 |
| Dry pack | 25.0 | 5.8 | 0.3 | 47.0 | 2.0 |

Problems and Solutions**1. Why do strawberry pieces float to the top of jam?**

The fruit was either not ripe enough, not crushed into small pieces, not cooked long enough, or not packed properly into the jars.

2. How can I reduce the amount of foaming?

Add ½ teaspoon butter or margarine to the fruit mixture before boiling.

3. Is paraffin wax safe to use on top of jams and jellies?

Because of possible mold contamination, paraffin or wax seals are no longer recommended for any sweet spread, including jams and jellies. Always process sweet spreads in a water bath canner or steam canner to prevent mold and preserve flavor and color.

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Adapted from original by Karen P. Penner, Ph.D., and Jeanne Dray, April 1995

Complete Guide to Home Canning, USDA AIB No. 539, 2009, and *So Easy to Preserve*, 6th ed., The University of Georgia Cooperative Extension Service.

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