

# Foods for Iowa 4-H Fairs - Quick Reference Guide (2024)

Food and nutrition exhibits involve fun and engaging food science and nutrition experiments.

Exhibits should be prepared with food safety in mind. Using unsafe ingredients or recipes could cause judges who evaluate exhibits to become ill. Plan ahead for a successful fair experience. Use these guidelines to help you select an acceptable product for exhibit, find an approved recipe source, and identify the appropriate preparation method.



## Preserved Foods - Keys to Success

### 1 Approved Recipe Source

Between 1994-2015, significant changes have been made in home food preservation processes. As a result, recipes handed down from previous generations, found in older cookbooks, or published online may not be safe to use or exhibit.

In order to qualify for state fair in Iowa, home preserved food exhibits must follow current preservation guidelines and use an approved, tested recipe.

ISU Extension and Outreach recognizes the following as current, tested recipe sources:

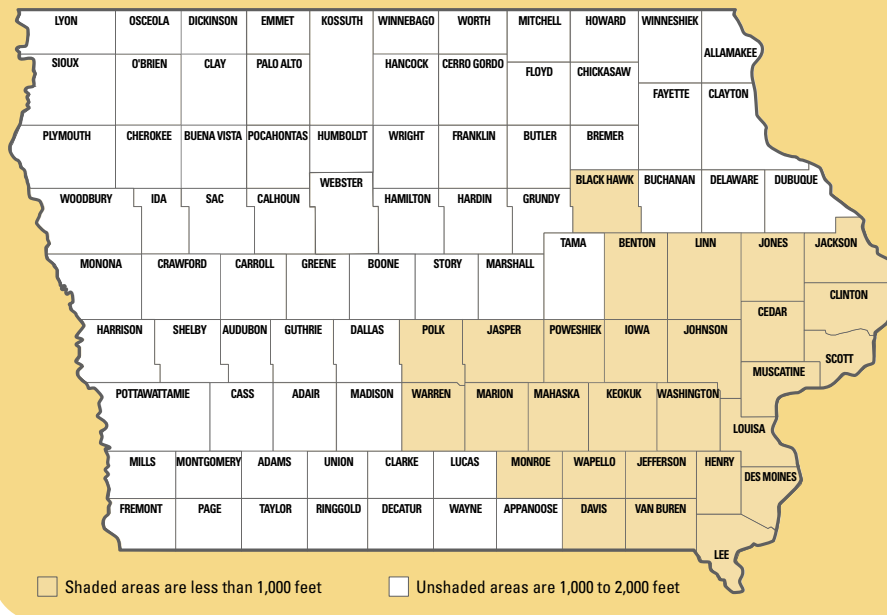
- Iowa State University Extension and Outreach's [Preserve the Taste of Summer handouts](https://store.extension.iastate.edu/product/16631) (HS 205), store.extension.iastate.edu/product/16631:
  - Canning and Freezing Tomatoes
  - Canning Fruit, Vegetables, Salsa, Pickles
  - Canning Meat, Poultry, and Wild Game
  - Freezing Fruits and Vegetables
  - Making Fruit Spreads
  - Drying Foods
  - Fermentation
- [National Center for Home Food Preservation](https://nchfp.uga.edu) - nchfp.uga.edu
  - [Judging Home Preserved Foods](https://nchfp.uga.edu/publications/nchfp/tech_bull/0Judging_Preserved_full.pdf) - nchfp.uga.edu/publications/nchfp/tech\_bull/0Judging\_Preserved\_full.pdf
- [USDA Complete Guide to Home Canning](https://nchfp.uga.edu/publications/usda/INTRO_HomeCanrev0715.pdf) (2015) - nchfp.uga.edu/publications/usda/INTRO\_HomeCanrev0715.pdf
- [So Easy to Preserve](https://setp.uga.edu) 6th Edition (University of Georgia) - setp.uga.edu
- Ball Blue Book, Guide to Preserving, 37th edition. ISBN: 0972753745
- Ball Complete Book of Home Preserving. ISBN: 0778801314
- Commercial canning seasoning packets. Packet directions must be followed with no changes.

### 2 Proper Equipment and Processing Time

If pressure canning is necessary, be sure to **USE A PRESSURE CANNER NOT A PRESSURE COOKER**. A canner will hold at least 4 quart-sized jars.

Adjust the processing time based on the altitude of your location.

Altitudes of Iowa Counties



### 3 Ask the Experts

Contact Iowa State University Extension and Outreach **AnswerLine** with any questions. Tell them you are calling in reference to a 4-H exhibit. Calls are answered Monday through Friday, 9 a.m.–noon, 1–4 p.m.

**CALL:** 1-800-262-3804 (Iowa area codes)  
515-296-5883 (non-Iowa area codes)  
1-800-735-2942 Relay Iowa for hearing impaired

**EMAIL:** [answer@iastate.edu](mailto:answer@iastate.edu)

# Preserved Foods

Home preserved food must be prepared using current, tested recipes to qualify as a fair exhibit.

	ACCEPTABLE EXAMPLES	UNACCEPTABLE EXAMPLES	METHOD NOTES
<b>JAMS JELLIES SWEET SPREADS</b>	<ul style="list-style-type: none"> <li>Fruit jams and jelly</li> <li>Pepper jelly</li> <li>Tomato jam</li> <li>Fruit butter</li> <li>Conserves</li> <li>Preserves</li> <li>Marmalades</li> </ul>	<ul style="list-style-type: none"> <li>Recipes made with Jell-O®</li> <li>Recipes that require refrigeration</li> <li>Jars sealed with paraffin or inverted</li> </ul>	<ul style="list-style-type: none"> <li>It is highly recommended that any freezer/refrigerator/Jell-O® jams or jellies be exhibited as a written project.</li> </ul>
<b>PRESERVED FRUITS</b>	<ul style="list-style-type: none"> <li>Whole or cut fruits</li> </ul>		<ul style="list-style-type: none"> <li>May be packed in sugar syrup, water or fruit juice.</li> </ul>
<b>LOW ACID VEGETABLES</b>	<ul style="list-style-type: none"> <li>Beans</li> <li>Carrots</li> <li>Corn</li> <li>Soups</li> <li>Vegetable with meat</li> </ul>	<ul style="list-style-type: none"> <li>Do not pack for artistic affect (“fancy packs” or hand-placing the vegetable to produce a tight, vertical pack) unless the recipe directly states to pack this way</li> </ul>	<ul style="list-style-type: none"> <li>If recipe calls for a peeled vegetable, it must be peeled.</li> </ul>
<b>PICKLES AND RELISHES</b>	<ul style="list-style-type: none"> <li>Cucumber</li> <li>Beets</li> <li>Asparagus</li> <li>Carrots</li> </ul>	<ul style="list-style-type: none"> <li>Do not pack for artistic affect (“fancy packs” or hand-placing the vegetable to produce a tight, vertical pack) unless the recipe directly states to pack this way</li> <li>Alum not advised</li> </ul>	
<b>SALSA</b>	<ul style="list-style-type: none"> <li>Canned mild salsa</li> <li>Canned hot salsa</li> <li>Canned fruit salsa</li> </ul>	<ul style="list-style-type: none"> <li>Fresh salsa</li> <li>Pico de gallo</li> <li>Recipe that a participant creates CANNOT be used as a fair exhibit</li> </ul>	<ul style="list-style-type: none"> <li>May NOT contain corn or black beans. If desired, you can add them at the time of serving.</li> </ul>
<b>TOMATO PRODUCTS</b>	<ul style="list-style-type: none"> <li>Tomatoes</li> <li>Tomato juice</li> <li>Tomato sauce</li> <li>Ketchup</li> <li>Spaghetti sauce</li> <li>BBQ sauce (canned)</li> </ul>	<ul style="list-style-type: none"> <li>Fresh BBQ sauce (not canned)</li> </ul>	<ul style="list-style-type: none"> <li>Tomato products are considered an acidified product and should be acidified according to recipe standards. Refer to the National Center for Home Food Preservation<sup>2</sup> for standards and include in your recipe explanation.</li> </ul>
<b>MEATS OR POULTRY</b>	<ul style="list-style-type: none"> <li>Canned beef, chicken, pork, and venison</li> </ul>	<ul style="list-style-type: none"> <li>Jerky</li> </ul>	<ul style="list-style-type: none"> <li>Either raw pack or hot pack are acceptable.</li> </ul>
<b>HONEY</b>	<ul style="list-style-type: none"> <li>Liquid</li> </ul>	<ul style="list-style-type: none"> <li>Honeycomb</li> </ul>	<ul style="list-style-type: none"> <li>Package in Queenline or classic honey jar.</li> <li>Density/moisture content must be measured by a refractometer.</li> </ul>
<b>MAPLE SYRUP</b>	<ul style="list-style-type: none"> <li>Maple syrup</li> </ul>		<ul style="list-style-type: none"> <li>Maple syrup exhibits must follow the instructions as outlined by <a href="http://extension.umn.edu/goods-your-woods/homemade-maple-syrup">University of Minnesota Extension’s, Maple Syrup page</a>, extension.umn.edu/goods-your-woods/homemade-maple-syrup</li> </ul>
<b>DRIED FOODS</b>	<ul style="list-style-type: none"> <li>Fruits</li> <li>Vegetables</li> </ul>	<ul style="list-style-type: none"> <li>Meats, including jerky</li> </ul>	<ul style="list-style-type: none"> <li>Must be completely dry (brittle texture).</li> <li>Must be stored in an airtight food grade container.</li> <li>Fruit leather must be brought in a plastic bag as part of a display but is not for tasting.</li> </ul>
<b>FREEZE DRIED FOODS</b>	<ul style="list-style-type: none"> <li>Fruits</li> <li>Vegetables</li> <li>Candy</li> </ul>		<ul style="list-style-type: none"> <li>Freeze dried foods exhibits should follow the best practices in the Penn State Extension Guidelines outlined in, <a href="http://extension.psu.edu/lets-preserve-freeze-drying">Let’s Preserve: Freeze-Drying page</a>, extension.psu.edu/lets-preserve-freeze-drying. Reference accordingly.</li> </ul>

# Baked Goods and Confections

	ACCEPTABLE EXAMPLES	UNACCEPTABLE EXAMPLES	METHOD NOTES
PERISHABLE FOOD	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Foods served hot</li> <li>Foods that require refrigeration</li> <li>Foods containing alcohol</li> <li>Foods served or made in canning jars or containers that are not food-grade</li> <li>Dips, fried foods, homemade noodles, nut butters, salads, smoothies</li> </ul>	<ul style="list-style-type: none"> <li>Perishable items (except home canned foods) that cannot be <b>safely</b> brought to the fair can be exhibited as a written project. Project can include pictures, explanation of steps, and evaluation of product quality from others at home.</li> </ul>
PIES	<ul style="list-style-type: none"> <li>Double crusted fruit pie</li> <li>Dutch apple pie</li> </ul>	<ul style="list-style-type: none"> <li>Custard, meringue, pecan, or pumpkin pies</li> <li>Unbaked fruit pies</li> <li>Products made with a butter-sugar mixture topping that is baked less than 45 minutes, e.g., apple or rhubarb crisps</li> </ul>	<ul style="list-style-type: none"> <li>Fruit must be cooked.</li> </ul>
PASTRIES	<ul style="list-style-type: none"> <li>Croissants</li> <li>Danishes</li> <li>Strudels</li> <li>Turnovers</li> </ul>	<ul style="list-style-type: none"> <li>Cream or custard filled</li> </ul>	<ul style="list-style-type: none"> <li>Fruit must be cooked.</li> </ul>
CANDIES	<ul style="list-style-type: none"> <li>Fudge</li> <li>Taffy</li> <li>Candied lemon</li> </ul>	<ul style="list-style-type: none"> <li>Candies that require refrigeration</li> <li>Cream cheese mints</li> </ul>	<ul style="list-style-type: none"> <li>Texture must be dry enough that it does not require refrigeration.</li> </ul>
YEAST BREADS	<ul style="list-style-type: none"> <li>White, Wheat, Rye</li> <li>Pretzels</li> <li>Rolls</li> <li>Breads with cheese that is fully incorporated (not visually detectable)</li> </ul>	<ul style="list-style-type: none"> <li>Breads containing meat, salsa, vegetables, potatoes, beans, fresh herbs or layers of cheese inside or on top of the product</li> <li>Breads leavened by wild microorganisms such as sourdough, friendship bread, etc.</li> <li>Caramel rolls made with milk or cream in caramel sauce</li> </ul>	<ul style="list-style-type: none"> <li>No dried potato flakes.</li> <li>Small amount of dried herbs on top acceptable but not incorporated into bread.</li> </ul>
QUICK BREADS	<ul style="list-style-type: none"> <li>Coffee cakes</li> <li>Muffins</li> <li>Biscuits</li> <li>Scones</li> <li>Banana, Pumpkin, Zucchini breads</li> </ul>	<ul style="list-style-type: none"> <li>Quick breads containing meat, salsa, vegetables (except finely shredded zucchini and pureed pumpkin), beans, fresh or dried herbs, or chunks (small or large) of cheese.</li> </ul>	<ul style="list-style-type: none"> <li>May be frosted or unfrosted. See frosting guidelines (page 4).</li> <li>No baking in metal cans.</li> <li>No visible chunks of cheese. It is highly suggested that you use shredded cheese.</li> <li>No reduced sugar or sugar substitute recipes.</li> </ul>
BISCUITS	<ul style="list-style-type: none"> <li>Rolled or dropped biscuits</li> <li>Scones</li> </ul>	<ul style="list-style-type: none"> <li>Biscuits containing meat, salsa, vegetables, beans, fresh herbs, or chunks (large or small) of cheese.</li> </ul>	<ul style="list-style-type: none"> <li>No visible chunks of cheese. It is highly suggested that you use shredded cheese.</li> </ul>
CEREAL GRAINS	<ul style="list-style-type: none"> <li>Baked granola</li> <li>Cereal</li> <li>Crackers (containing no herbs)</li> <li>Trail mixes</li> </ul>		<ul style="list-style-type: none"> <li>Must be baked.</li> <li>Must be dry and in an airtight food grade container.</li> </ul>
FLAVORED OILS/ VINEGARS	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Homemade salad dressings</li> <li>Flavored vinegars with fruit peels in the product</li> <li>Vinegar or oils with added herbs or garlic</li> </ul>	
COOKIES AND BARS	<ul style="list-style-type: none"> <li>Drop, rolled, pressed, or refrigerator</li> <li>Black bean brownies (commercially processed beans)</li> <li>Brownies, Scotcheroos</li> <li>No-bake cookies that do not contain flour</li> </ul>	<ul style="list-style-type: none"> <li>Lemon bars</li> <li>Items that require refrigeration after baking or preparing (this excludes items that set up at room temperature)</li> <li>Edible cookie dough</li> </ul>	<ul style="list-style-type: none"> <li>All doughs containing flour and eggs <b>MUST</b> be baked.</li> <li>No flowers, including edible flowers.</li> </ul>

	ACCEPTABLE EXAMPLES	UNACCEPTABLE EXAMPLES	METHOD NOTES
CAKES	<ul style="list-style-type: none"> <li>• Foam</li> <li>• Sponge</li> <li>• Shortened</li> <li>• Cupcakes</li> <li>• Angel food</li> <li>• Pound</li> <li>• Chocolate</li> </ul>	<ul style="list-style-type: none"> <li>• Carrot</li> <li>• Cake filled or topped with any product requiring refrigeration</li> <li>• Cake filled, garnished, or topped with fresh fruit</li> <li>• Fruit filled cakes containing chunks of fruit</li> <li>• Pineapple upside down cake</li> </ul>	<ul style="list-style-type: none"> <li>• May be frosted or unfrosted. Frosting is required if decorating skills are part of the goal.</li> <li>• No baking in metal cans.</li> <li>• No flowers, including edible flowers.</li> </ul>
FROSTING AND GLAZES	<ul style="list-style-type: none"> <li>• Commercially canned frostings, e.g., German chocolate, cream cheese</li> <li>• Sprinkle of powdered sugar</li> <li>• 4-Hers are advised to ONLY use the Tested Vanilla Buttercream Recipe (see below)</li> <li>• Glazes made with powdered sugar and water only</li> </ul>	<ul style="list-style-type: none"> <li>• Cream cheese frosting made from scratch</li> <li>• German chocolate frosting made from scratch</li> <li>• Ganache</li> <li>• 7-minute frosting</li> <li>• Fresh juice or zest</li> </ul>	<ul style="list-style-type: none"> <li>• It is highly suggested that exhibits be presented without frosting unless the frosting is part of the exhibit goal.</li> </ul>

The following recipe is required for use with Iowa 4-H Fair Food Product Exhibits

All Iowa 4-Hers must reference the [AnswerLine Safe Frosting for Iowa 4-H Fairs post](https://www.extension.iastate.edu/Q7JVR0), go.iastate.edu/Q7JVR0, in their write-up for full credit if a homemade frosting is used in the exhibit. Any change or addition of ingredients will be unacceptable and will result in disqualification.

### Tested Vanilla Buttercream Recipe

#### Ingredients

- 1 cup unsalted butter, slightly softened
- 4 cups powdered sugar
- ¼ teaspoon salt
- 1 teaspoon vanilla extract
- 2 Tablespoons dairy milk (skim, 2%, or whole)

#### Instructions

1. Beat the butter, salt, and vanilla together until fully combined on medium speed.
2. Reduce speed and add the powdered sugar and milk. Add the milk a teaspoon at a time to achieve the right consistency for the way you want to use the frosting. DO NOT use more than 2 tablespoons of milk.
3. Slowly increase the speed of the mixer and beat until the frosting is light and fluffy.

No endorsement of products or firms is intended nor is criticism implied of those not mentioned.

Developed by Shannon Coleman, associate professor and state human sciences specialist in food safety and Lena Frank (alum), department of food science and human nutrition. Reviewed by AnswerLine specialists with Iowa State University Extension and Outreach.

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