



Cottage Foods Academy

Non-Potentially Hazardous Foods List

Guidance Document for Minnesota Cottage Foods Producers

Last Revised: September 3, 2025

This guidance document is offered as a tool for Minnesota cottage food producers (CFPs) to better understand the foods that: are allowed, are not allowed, or maybe could be allowed; under [Minnesota Statute 28A.152, the Minnesota Cottage Foods Law](#). This list is not all-encompassing, and is often updated. Any food suggestions are welcome, particularly foods in languages other than English. Please email suggested additions to info@mfma.org.

For the most part, the MN Cottage Foods Law is based on food science. Only “non-potentially hazardous (NPH) foods,” as defined in [Minnesota Rules, part 4626.0020, subpart 62](#), are allowed. This means they cannot be ‘potentially hazardous,’ as defined in subpart 62, A., or must have a pH of 4.6 or lower, or a water activity of .85 or lower. This list is divided into nine categories. The “Acid, Acidified, Home-canned and Home-processed Foods” category is specified in law to be restricted to these foods: “pickles, vegetables, or fruits having an equilibrium pH value of 4.6 or lower or a water activity value of .85 or less.” **Based on MN’s NPH foods definition in the law, the following foods do NOT qualify as cottage foods: egg dishes, making dairy products (e.g., cheese, yogurt, ghee), meats, poultry, fish, seafood. Rule of thumb: if the food requires refrigeration for food safety, it will not qualify in MN as a cottage food. If the food requires refrigeration for food quality, then it may qualify. Additionally, [by law](#), THC edibles are NOT food therefore cannot be a cottage food or used in cottage foods.**

To search for words in this document:
Press the Ctrl key and the F key to
activate the “Find” box. Type the word
in the Find box.

It is the responsibility of CFPs to ensure the foods sold are legal under this exemption from licensing. For the pH foods, there are [hundreds of tested recipes](#) that meet the ≤ 4.6 pH value. If you use a non-standard recipe, you can test the pH of your finished product using [this suggested method](#) in the Appendix. For the water activity recipes, there are fewer tested recipes. This list provides guidance for known foods that meet the water activity of ≤ 0.85 . We also list some [tested recipes](#) in the Appendix.

- Go to the [Cottage Foods Academy](#) as the 1-stop shop for everything you need to know about the cottage foods industry in Minnesota.
- To access the required training and application to become a registered cottage foods producer go to [MDA's cottage foods website](#).

☀️ Once registered as a MN Cottage Food Producer, we recommend you join the Facebook group [MN Registered Cottage Food Producers Group](#). This group is highly supportive and a wonderful source of information and sharing.

LOOKING for the [Pet Treats Non-Potentially Hazardous Foods](#) List? [Click here](#).

NPH Foods Categories

1. Acidic, Acidified, Home-canned and Home-processed Foods
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 - ii. [Pickled Foods](#)
 - iii. [Vegetables](#)
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Appendix

[Tested Recipes](#)

[Food Testing Labs](#)

[Where to buy pH Meters](#)

[Where to buy Water Activity Meters](#)

[How to Test the pH in Your Food Product](#)

[How to Test the Water Activity in Your Food Product](#)

[Educational Resources](#)

Acknowledgments

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|---|--|--|
| FRUITS – FRUITS – FRUITS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Fruits that have an equilibrium pH value of ≤ 4.6 and are heat treated to kill vegetative cells, are considered 'acid.' Following are fruits with pH ranges ≤ 4.6 (Source: Clemson University).</p> <ul style="list-style-type: none"> Apples: 3.20 - 4.00 Apple Juice: 3.35-4.00 Apple Sauce: 3.10-3.60 Apricot nectar: 3.78 Apricots, pureed: 3.42-3.83 Aronia (chokecherry): 3.31-4.28 Blackberries, Washington: 3.85-4.50 Blueberries, Maine: 3.12-3.33 Blueberries, frozen: 3.11-3.22 Cherries, California: 4.01-4.54 Cherries, red, water pack: 3.25-3.82 Cherries, Royal Ann: 3.80-3.83 Chokecherries: 3.31-4.28 Fruit cocktail: 3.60-4.00 Gooseberries (Jostaberry): 2.8-3.2 Grapes, Concord: 2.80-3.00 Grapes, Niagara: 2.80-3.27 Grapes, seedless: 2.90-3.82 Grapefruit: 3.00-3.75 Kiwi: 3.1-3.96 Lemon juice: 2.00-2.60 Lime juice: 2.00-2.35 Lime: 2.00-2.80 Loganberries: 2.70-3.50 Nectarines, yellow flesh: 3.92-4.18 Oranges, Florida: 3.69-4.34 | <p>Fruits that have an equilibrium pH value of > 4.6.</p> <ul style="list-style-type: none"> Elderberries: 4.73-5.19 (see Jams section) Pawpaw: 5.5-5.9 Non-acidified, home-canned bananas, figs; melons, e.g., cantaloupe, honeydew, watermelon. White-fleshed peaches or white-fleshed nectarines. (The natural pH of some white peaches or nectarines can exceed 4.6 pH, making them a low-acid food for canning purposes. (Currently, there is no low-acid pressure process available for white-flesh peaches or nectarines, or an acidification procedure for safe water bath canning.) Raw, un-canned and unpasteurized juice or cider, fruit, or vegetables, are not allowed because they require refrigeration for safety | <ul style="list-style-type: none"> Fruit ciders, fruit juices, including tomato: allowed, if final product meets the pH criteria and are home-canned or pasteurized according to current research tested methods. Home-canned acidified or pickled bananas, figs; melons, e.g., cantaloupe, honeydew, watermelon; using a standardized recipe or test results verifying it meets final product pH ≤ 4.6. These fruits' final home-canned and acidified product might not qualify as their upper pH range can exceed 4.6 pH. <ul style="list-style-type: none"> Apricots: 3.30-4.80 Mangoes, green: 3.40-4.80 Nectarines, white flesh: > 4.6 Peaches, white flesh: > 4.6 Persimmons: 4.42-4.70 |

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|---|-------------|------------|
| FRUITS – FRUITS – FRUITS | | |
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> • Orange juice, California: 3.30-4.19 • Orange juice, Florida: 3.30-4.15 • Peaches, yellow flesh: 3.30-4.05 • Pears, Bartlett: 3.50-4.60 • Pimiento: 4.40-4.90 • Pineapple: 3.20-4.00 • Plums, Blue: 2.80-3.40 • Plums, Red: 3.60-4.30 • Pomegranate: 2.93-3.20 • Prunes: 3.63-3.92 • Raspberries: 3.22-3.95 • Rhubarb: 3.10-3.40 • Strawberries: 3.00-3.90 | | |

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|--|---|------------|
| PICKLED FOODS – PICKLED FOODS – PICKLED FOODS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Pickled foods that have an equilibrium pH value of ≤ 4.6 and are heat treated to kill vegetative cells.</p> <ul style="list-style-type: none"> • Pickled asparagus • Pickled beets • Pickled cantaloupe • Pickled carrots • Pickled chow chow relish • Pickled corn relish • Pickled green or yellow beans (Dilly Beans) • Pickled green tomatoes | <p>Pickled fruits or vegetables that have an equilibrium pH value of > 4.6.</p> <ul style="list-style-type: none"> • Refrigerator or freezer pickled foods • Pickled meats, eggs, fish, and seafood are prohibited by the cottage food law. M.S. 28A.152, subd. 1. (a) (2) (i). <ul style="list-style-type: none"> • Pickled bison • Pickled eggs • Pickled fish • Pickled meats | |

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|--|---|------------|
| PICKLED FOODS – PICKLED FOODS – PICKLED FOODS | | |
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> ● Pickled okra ● Pickled summer yellow squash ● Pickled 3-bean salad ● Pickled watermelon rinds ● Pickles, sweet or dill | <ul style="list-style-type: none"> ● Pickled seafood | |

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|--|--|---|
| VEGETABLES – VEGETABLES – VEGETABLES | | |
| Allowed | Not Allowed | Exceptions |
| <p>Vegetables that are acidified and have an equilibrium pH \leq 4.6 and are heat-treated to kill vegetative cells.</p> <ul style="list-style-type: none"> ● Bloody Mary Mix ● Minnesota Tomato Mixture ● Tomatoes, acidified with bottled lemon juice, citric acid, or vinegar. ● Tomatillos, acidified ● Tomato juice, acidified ● Tomato paste with citric acid ● Tomato sauce, acidified ● Vegetable juice blend, acidified | <p>Final vegetable foods that have an equilibrium pH value of $>$ 4.6.</p> <ul style="list-style-type: none"> ● Fresh vegetable juice that has not been heat treated ● Frozen vegetables ● Hummus ● Pesto ● Home-canned low-acid foods: vegetables, soups, stews; legumes/pulses, e.g., chickpeas, lentils, dry peas, beans | <p>Because many factors affect the acidity level of tomatoes, USDA recommends adding acid to all home-canned tomatoes and tomato products. See Appendix for more information.</p> |

| Acidic, Acidified, Home-Canned and Home-Processed | | |
|---|---|------------|
| FERMENTED FOODS – FERMENTED FOODS – FERMENTED FOODS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Fermented fruit, vegetables, pickles, sauerkraut, that have an equilibrium pH value of ≤ 4.6.</p> <ul style="list-style-type: none"> • Kimchi • Pickles • Sauerkraut • Water Kefir soda • Kombucha with alcohol content not more than one-half of one percent by volume. • Sourdough starter culture fermented to ≤ 4.6 verified by home pH testing. | <p>Fermented fruit, vegetables, pickles, sauerkraut, that have an equilibrium pH value of > 4.6.</p> <ul style="list-style-type: none"> • Black garlic – the production of black garlic is an oxidation & crystallization process, not a fermentation process. • Fermented products requiring refrigeration for food safety. • Fermented products with alcohol content greater than one-half of one percent by volume. | |

| Acid, Acidified, Home-Canned and Home-Processed | | |
|---|--|------------|
| VINEGARS – VINEGARS – VINEGARS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Vinegar and infused vinegars with an equilibrium pH value of ≤ 4.6</p> | <p>Vinegar and infused vinegars with an equilibrium pH value of >4.6</p> <p>Oil based flavored vinaigrettes.</p> | |

| Acid, Acidified, Home-Canned and Home-Processed | | |
|---|--|---|
| CONDIMENTS – CONDIMENTS - CONDIMENTS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Condiments that have an equilibrium pH value of ≤ 4.6 and heat treated to kill vegetative cells.</p> <ul style="list-style-type: none"> • Barbecue sauce • Catsup / Ketchup • Chili sauce • Chutneys • Fruit salsas • Honey, flavored • Syrups –Simple Syrups (1:1 water/sugar ratio) just flavored • Horseradish has a pH > 5.4, therefore it must be acidified to be a cottage food product. See Tested Recipes below. • Mustard • Pepper sauce • Salsa, chile • Salsa, green tomato • Salsa, tomato • Salsa Verde (tomatillos green salsa) • Taco sauce • Flavored with alcohol. Final alcohol content must be less than one-half of one percent by volume. | <p>Condiments that have an equilibrium pH value of > 4.6.</p> <ul style="list-style-type: none"> • Fruit based chutneys with nuts • Pesto • Fresh sauces like guacamole or salsa requiring refrigeration • Corn & Bean Salsa • Salsa canned in quart jars. • Oils such as sunflower, flaxseed, canola, rapeseed. • Infused oils • Oil based flavored vinaigrettes. • Mayonnaise • Flavored with alcohol and final alcohol content is more than one-half of one percent by volume. • Thickened with tapioca, cornstarch, flour, arrowroot, etc. • Coffee Syrups | <p>Bacon as an ingredient: store bought shelf stable bacon added to sauces is allowed. The BBQ sauce must consist of less than 2% by weight of cooked bacon. Final product pH must have an equilibrium of ≤ 4.6.</p> <p>Thickened with Regular Clearjel®, Thermoflo®, ThickGel® are safe alternatives to thicken home-canned or jarred sauces.</p> <p>Home-canned caramel and chocolate dessert sauces. See Tested Recipes.</p> <p>A hot-fill-hold process may be used instead of boiling water or steam canning for some acidified products like salsa and sauces that have a pH < 4.1 or lower, a smooth consistency, and a pre-cook step. See Appendix for more information.</p> |

| Acid, Acidified, Home-Canned and Home-Processed | | |
|--|---|--|
| INGREDIENTS – INGREDIENTS - INGREDIENTS | | |
| Allowed | Not Allowed | Exceptions |
| <p>Ingredients' final product has an equilibrium pH value of ≤ 4.6 or water activity value of ≤ 0.85 and heat treated to kill vegetative cells.</p> <ul style="list-style-type: none"> • Fruit toppings like peach, sweet cherry • Pie filling (thickened with ClearJel® or Thermflo®): apple, blueberry, cherry, peach, green tomato • Lemon or lime curd • Cornstarch in baked foods. • Flavored with alcohol. Final alcohol content must be less than one-half of one percent by volume. | <p>Ingredients' final product has an equilibrium pH value of > 4.6 or water activity value of > 0.85.</p> <ul style="list-style-type: none"> • Pie fillings thickened with tapioca, cornstarch, arrowroot, or flour added before canning. • Mincemeat pie filling • Mole paste • Pineapple, orange, raspberry, rhubarb, etc. curd (only lemon or lime curd has a safe research tested home canning method) • Lemon or lime curd flavored with ginger or herbs like thyme. • Flavored with alcohol and final alcohol content is more than one-half of one percent by volume. • Extracts/Vanilla Extract when selling as a cottage food product because the final alcohol content is higher than allowed (must be one-half of one percent by volume or less). Note: Extracts/Vanilla extracts are allowed as ingredients in baked goods. | <p>Pie fillings thickened with Regular Clearjel®, Thermoflo®, ThickGel® are safe alternatives to thicken home-canned or jarred fillings or toppings before water-bath canning.</p> <ul style="list-style-type: none"> • Ball preserving has tested recipes for a home canned chocolate cranberry sauce and a chocolate raspberry sauce safe for water bath canning. See Appendix for more information. • Packaged sweet dessert sauces (not home canned), like caramel and chocolate, with a water activity ≤ 0.85 are allowed. Refrigerate or freeze the product for quality. • A cold-fill-hold process may be used for some products as an alternative to the boiling water or steam canning process. Products must have a pH or 3.3 or below or acidified with pH of 3.5 or 3.8. Must include a pre-cook and a cooling step. See Appendix for more information. |

| BAKED FOODS | | |
|---|---|--|
| Allowed | Not Allowed | Exceptions |
| <p>Baked foods that do not require refrigeration and have a final water activity value of ≤ 0.85 or pH of ≤ 4.6.</p> <ul style="list-style-type: none"> • Baklava • Bars • Biscuits, fruit-filled • Biscotti • Breads, yeasted • Brownies • Cakes • Cake pops • Cookies • Cupcakes • Donuts / Doughnuts • Focaccia • Macarons with allowable fillings listed in Section 8: Icings, Fillings, Frosting, Sugar Art, & Toppings • Macaroons • Meringue Cookies • Pastries • Pies, fruit-filled • Pineapple upside down cake • Pizza crusts • Pecan pie –using the approved recipe in Come and Bake It 1. • Pretzels • Some Quick breads (See Exceptions column) • Flavored with alcohol. Final alcohol content must be less than one-half of one percent by volume. | <p>Baked foods that require refrigeration and have a final water activity value of > 0.85 or pH of > 4.6.</p> <ul style="list-style-type: none"> • Cake, brownies, bread baked in a jar • Cakes/Cupcakes topped with fresh whipped cream and/or cut <u>1</u> fruit • Cheesecake • Custard, pudding, cakes, or cupcakes with custard filling • Pies: banana cream, chess pie, meringue pies • Pies**:pumpkin, squash, sweet potato pie, etc. **These pies **may** be eligible IF they are tested and meet Aw / pH • Fillings with: Meat, Bison, Poultry, Fish, Seafood, Vegetables • Non-baked dairy (butter, cheese, cream cheese, yogurt), example: no-bake cheesecakes. • Non-baked product containing raw and/or unpasteurized eggs such as raw cookie dough, egg noodles, soft meringues on pies • Final product decorated or garnished with cut <u>1</u> fresh fruits, vegetable or meat • Pizza • Flavored with alcohol and final alcohol content is more than one-half of one percent by volume. • Frozen doughs • Tres Leches Cakes or Cupcakes | <ul style="list-style-type: none"> • Sweet or quick breads, cakes & pies made with fresh fruit, vegetables or cheese, e.g., banana, carrot, pumpkin, zucchini, sweet potato cheddar may be a potentially hazardous food. Test these products for both water activity and pH to verify non-potentially hazardous status. Recipes from Come and Bake It 1 (2015) & 2 (2018) testing as non-potentially hazardous including: Mom's zucchini bread, pumpkin roll cake, pumpkin whoopie pies, pumpkin bread, pumpkin cake bars. • NOT all recipes in the Come and Bake It 2: Pumpkin Spice Edition (2018) are legal in Minnesota, since Minnesota has a different standard for "non-potentially hazardous" foods: pH ≤ 4.6 or water activity ≤ 0.85. • Lefse, crepes, crepe cakes: allowed if tested and has a water activity of ≤ 0.85. • Artisan style breads baked with olives or aged cheese –allowed if tested and has a water activity content of ≤ 0.85 Ingredients must be added before baking and cannot be added as a topping after baking. • Yeasted breads with added ingredients that impact the final water activity value need to be tested. E.g. sourdough bread with olives |

| BAKED FOODS | | |
|-------------|--|------------|
| Allowed | Not Allowed | Exceptions |
| | <ul style="list-style-type: none"> • Sesame Balls (rice flour dough wrapped over a filling of lotus paste or red bean paste, then deep fried & rolled in sesame seeds). • Recipes from Come and Bake It 1 & 2 editions tested as potentially hazardous including: sweet potato cinnamon bread, pumpkin scones, carrot cake, pumpkin roll filling, pumpkin pie, lemon zucchini bread, applesauce nut bread, pumpkin cake, orange pumpkin muffins, pumpkin layer cake, pumpkin blondies, cake mix pumpkin cake, cream cheese kolaches, banana bread, savory cheddar cheese quick bread, cheddar cheese herb yeast bread. • Home rendered lard, bacon grease, or other animal fats unless they are part of a baked product, e.g., pie crust or cupcakes. • Steamed Buns, e.g., Kas Las Paus or Kalapao – yeast-based or baking powder bun filled with beef or pork sausage, or hard-boiled egg. • Steam Rolls or Steam Rice Roll Cakes, e.g., Fawn Kouv or Banh Cuon –steamed rice roll cake with mushrooms, pork stir fry, noodles, or meat fillings. • Steamed layer cake, steamed rice cakes • Cakes topped with bottles of alcohol / liquor. • Perogies | |

| BEVERAGES | | |
|--|--|---|
| Allowed | Not Allowed | Exceptions |
| <p>Final beverage product pH \leq 4.6 or water activity <0.85.</p> <ul style="list-style-type: none"> • Packaged items, i.e. jar and lid examples, including but not limited to: • Fermented beverages (see Fermented Foods section) • Soft drinks, packaged • Teas, packaged • Dry drink mixes / blends, in packages • Pasteurized or home-canned high-acid juices • Lemonade and fruit flavored ades, packaged • Shrubs (vinegar based non-alcoholic concentrated syrup that combines fruit juice, sugar, vinegar). • Switchels (vinegar-based blend of water, flavorings, apple cider). • Tinctures with vinegar as base liquid. | <p>Final beverage product pH > 4.6 or water activity > 0.85.</p> <ul style="list-style-type: none"> • Prepared, ready-to-serve beverages like coffee, tea, lemonade are considered food service requiring licensing. • Coffee syrup (coffee concentrate with added sugar) is a low-acid food for canning, and there are no approved research-tested canning recipes for canning/bottling coffee syrup. • Fresh squeezed juice • Tri-Color Drink (Nam Vam or Na Va) or Tri-Color Dessert (Ché Ba Máu). • Tapioca Coconut Drink (Nab Vam). • Bubble Tea, Boba Tea • Cold brew coffee, tea require refrigeration for food safety. • Tinctures with an alcohol base. | <ul style="list-style-type: none"> • Fruit ciders, fruit juices, including tomato products, are allowed if home-canned or pasteurized according to current research tested methods and the final product meets the pH criteria. • Raw, un-canned and unpasteurized juice is not allowed because it requires refrigeration. • A cold-fill-hold process may be used for some beverages as an alternative to the boiling water or steam canning process. Products must have a pH of 3.3 or below or acidified with pH of 3.5 to 3.8. Must include a pre-cook and a cooling step. Instructions here: https://foodsafety.wisc.edu/assets/coldfill2019.pdf |

| CANDY, CONFECTIONS | | |
|---|--|------------|
| Allowed | Not Allowed | Exceptions |
| <p>Final product does not require refrigeration for food safety and has a final water activity value of ≤ 0.85.</p> <ul style="list-style-type: none"> • Bon bons • Brittle | <p>Final product does not require refrigeration for food safety and has a final water activity value of > 0.85.</p> <ul style="list-style-type: none"> • Flavored with alcohol and final alcohol content is more than one-half of one percent | |

| CANDY, CONFECTIONS | | |
|--|---|------------|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> • Candied or caramel apples without a stick inserted. • Caramels • Chocolate • Chocolate, ground • Chocolate-covered, non-perishable foods, such as nuts, dried fruits, marshmallows, & pretzels • Cotton candy • Fudge • Gummies • Hard candy • Hot Chocolate Bombs or Cocoa Bombs • Popcorn balls • Flavored with alcohol. Final alcohol content must be less than one-half of one percent by volume. | <p>by volume. E.g., liquid filled chocolate with a liqueur filling.</p> <ul style="list-style-type: none"> • Candied or caramel apples with sticks inserted in the apples as they are a high risk for <i>Listeria Monocytogenes</i> bacterial growth requiring refrigeration for food safety. • Chocolate-covered fresh fruit, e.g., berries, pineapple, melon • Anything containing raw eggs • Cream based filling • Tapioca desserts, e.g., Nab Vam, Tri Color Dessert, Ché Ba Máu | |

| DRIED, DEHYDRATED, ROASTED FOODS | | |
|--|---|--|
| Allowed | Not Allowed | Exceptions |
| <p>Final product water activity value of ≤ 0.85.</p> <ul style="list-style-type: none"> • Baking mixes • Chiwda (Indian snack mix) • Coconut • Coffee beans • Culinary lavender • Dates • Dry drink mixes / blends, in packages • Flour milled from grains | <p>Final product water activity value of > 0.85.</p> <p>Rule of thumb: if the food was not ≤ 0.85 (or $<4.6\text{pH}$) before freeze drying, it is not allowed. E.g., almond milk or cow milk yogurt / pudding: is >0.85 before freeze drying, so therefore not allowed.</p> <ul style="list-style-type: none"> • Cooked tapioca • Jerky: fish, meat, poultry, seafood | <p>Freeze drying note: Unlike other food preservation methods, freeze drying doesn't kill bacteria that might be present in the food. Only non-potentially hazardous foods can be freeze dried under MN's cottage foods law; freeze drying a potentially hazardous food does not make it non-potentially hazardous. See Appendix for more information.</p> |

| DRIED, DEHYDRATED, ROASTED FOODS | | |
|---|--|------------|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> • Fruit • Fruit leathers • Grains • Garlic • Granola, cereals, trail mixes • Herbs • Herb Blends • Hot Pepper Chips / Hot Chili Snacks (e.g., Kao Soi, Guizhou, Yunnan-style) if other ingredients added don't change the final product from a shelf-stable food. • Legumes & pulses such as beans, lentils, peas, beans, soybeans, and peanuts. • Milled cornmeal, flaxseed, flour, etc. • Mushrooms, mushroom jerky, etc. Must be dried, dehydrated only; not roasted. • Nut mixes • Onions • Pasta noodles without eggs • Popcorn & Popcorn Snacks • Potato chips • Seasonings, seasoning salt • Seeds like pumpkin, sunflower • Soup mixes (dry) • Spices, spice blends • Tea (dry) • Tomatoes • Tree nuts and legumes, coated or uncoated • Vegetable leathers like pumpkin or mixed vegetable • Vegetable chips • Vegetables | <ul style="list-style-type: none"> • Roasted vegetables or fruits, e.g., peppers, carrots, tomatoes, etc. • Dried noodles with eggs • Fresh, frozen, or cooked pasta • Popcorn, kettle corn made onsite at a farmers' market or community event. This is food service and requires a food license from MDA. • Fresh or Fried Egg or Spring Rolls • Freeze Dried cheesecake, pudding, yogurt, dairy, eggs, ice cream, meat, fish, seafood & poultry. • Noodle Soup, e.g., Kaopia, Khao Piak Sen • Nut Butters • Steamed Rolls (e.g., spring roll filled with vegetables and/or meat. | |

| DRIED, DEHYDRATED, ROASTED FOODS | | |
|--|-------------|------------|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> Vegetarian-based soup mixes (dry). | | |

| FREEZE-DRIED FOODS | | |
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| Allowed | Not Allowed | Exceptions |
| <p>Final product pH \leq 4.6 or water activity \leq 0.85.</p> <ul style="list-style-type: none"> Freeze dried candy, jello, fruit, vegetables, herbs, approved frostings in the Come & Bake It books. | <p>Final product pH $>$ 4.6 or water activity $>$ 0.85.</p> <ul style="list-style-type: none"> Freeze Dried cheesecake, pudding, yogurt, dairy, milk, eggs, ice cream, meat, fish, seafood, poultry. Cut fruit, vegetables | <p>Freeze drying note: Unlike other food preservation methods, freeze drying doesn't kill bacteria that might be present in the food. Only non-potentially hazardous foods can be freeze dried under MN's cottage foods law; freeze drying a potentially hazardous food does not make it non-potentially hazardous. See Appendix for more information.</p> |

| FROZEN FOODS | | |
|--|---|------------|
| Allowed | Not Allowed | Exceptions |
| <p>Final product pH \leq 4.6 or water activity \leq 0.85.</p> <ul style="list-style-type: none"> Any allowable cottage food that meets the pH or water activity parameters may be frozen. Fruit-based frozen treats, e.g., popsicles, sorbet, ice snow cones, etc. <ul style="list-style-type: none"> Fruit juices need to be heat treated | <p>Final product pH $>$ 4.6 or water activity $>$ 0.85.</p> <ul style="list-style-type: none"> Non-dairy soft serve Frozen fruit and vegetables Frozen uncooked or partially cooked bread doughs, batters, pies, etc. Ice milk, ice cream, or ice pops made with dairy. | |

| FROZEN FOODS | | |
|--|--|------------|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> ○ Whole fruit can be added (but not cut fruit due to being potentially hazardous) ● Note: Imported frozen berries were identified as the source of several viral outbreaks of both Norovirus and Hepatitis A. Boiling berries for one minute to make juice prior to re-freezing is best practice to eliminate pathogens. | <ul style="list-style-type: none"> ● Freeze Dried cheesecake, pudding, yogurt, dairy, milk, eggs, ice cream, meat, fish, seafood, poultry. ● Fruit-based frozen treats using cut₁ fruits ● Uncooked freezer jam, jellies, preserves. | |

| ICINGS, FILLINGS, FROSTINGS, SUGAR ART, TOPPINGS | | |
|---|--|---|
| Allowed | Not Allowed | Exceptions |
| <p>Final product pH \leq 4.6 or water activity \leq 0.85.</p> <p>Icings, Fillings, Frosting</p> <ul style="list-style-type: none"> ● Buttercream using a tested recipe. ● Cookie dough frosting; must use commercially heat-treated flour. ● Gum paste ● Flat ● Fondant ● Fudge ● Glaze ● Royal icing with meringue powder <p>Sugar Art</p> <ul style="list-style-type: none"> ● Cake toppers ● Cream cheese mints ● Cupcake toppers | <p>Final product pH $>$ 4.6 or water activity $>$ 0.85.</p> <ul style="list-style-type: none"> ● Eggs, cream, milk or cream cheese based; unless the final product using these ingredients is documented as a non-potentially hazardous food. ● Non-edible ingredients such as luster dust, glitter, decorations, disco dust, twinkle dust, shimmer powder, petal dust, marked as “non-edible” or “for decoration only” without an ingredient list. ● Flavored with alcohol and final alcohol content is more than one-half of one percent by volume. ● Fresh whipped cream ● Recipes from <i>Come and Bake It</i> 1 & 2 editions that tested as potentially hazardous including: Italian meringue buttercream, | <ul style="list-style-type: none"> ● Dairy and cream cheese-based frostings tested recipes that meet the water activity \leq 0.85 or pH \leq 4.6. ● Recipes from <i>Come and Bake It</i> 1 & 2 tested as non-potentially hazardous are allowed: cream cheese buttercream, maple cinnamon cream cheese frosting, marshmallow cream cheese frosting, cream cheese sour cream frosting, orange cream cheese frosting, traditional cream cheese frosting, faux cream cheese frosting, chocolate ganache, Swiss and no-cook meringue buttercreams, fluffy boiled icing, lemon curd, Seven minute frosting, French vanilla buttercream, fluffy buttercream frosting, American buttercream, caramel fillings, caramel coconut pecan sweet potato frosting, coconut-pecan |

| ICINGS, FILLINGS, FROSTINGS, SUGAR ART, TOPPINGS | | |
|--|---|---|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> • Edible luster dust, glitter, decorations (non-toxic does not mean edible, edible decoration will have a list of ingredients on the label) • Modeling chocolate figurines • Sugar flowers • Other decor items • Edible images printed on icing/wafer sheets. <p>Toppings</p> <ul style="list-style-type: none"> • Stabilized commercial non-dairy whip cream products. • Dried or freeze-dried fruit • Edible flowers • Herbs like culinary lavender, mint • Whole fruit • Fruit peels or zest • Bacon topping, cooked and commercially sourced. Final product consists of less than 2% by weight of cooked bacon. • Flavored with alcohol. Final alcohol content must be less than one-half of one percent by volume. | <p>Chocolate French Buttercream, Pineapple curd, Brown Sugar Swiss Meringue Buttercream, and cooked flour buttercream.</p> <ul style="list-style-type: none"> • Cut₁ fresh fruits | <p>frosting, maple cinnamon cream cheese frosting, pumpkin cream cheese filling, cooked flour frosting.</p> |

| JAMS, JELLIES, PRESERVES, FRUIT BUTTERS, SYRUPS | | |
|---|---|--|
| Allowed | Not Allowed | Exceptions |
| <p>Final product pH \leq 4.6 or water activity \leq 0.85 and heat-treated to kill vegetative cells.</p> <ul style="list-style-type: none"> • Conserves | <p>Final product pH $>$ 4.6 or water activity $>$ 0.85.</p> <ul style="list-style-type: none"> • Pumpkin, squash, sweet potato butters • Bacon jam (bacon, onions, vinegar, spices) | <ul style="list-style-type: none"> • Non-tested recipes using low-acid ingredients require testing. |

| JAMS, JELLIES, PRESERVES, FRUIT BUTTERS, SYRUPS | | |
|---|--|------------|
| Allowed | Not Allowed | Exceptions |
| <ul style="list-style-type: none"> • Fruit butters • Fruit syrup • Sorghum syrup • Jam • Jelly • Marmalades • Preserves • Cooked fruit-based freezer jam, jelly or preserves. • Flavored with alcohol, e.g., wine or beer jelly. Final alcohol content must be less than one-half of one percent by volume. • Tested recipes for fig preserves, mint jelly, pepper jelly, tomato jam. | <ul style="list-style-type: none"> • Flavored with alcohol and final alcohol content is more than one-half of one percent by volume. • Uncooked freezer jam, jelly or preserves. | |

| HEMP FOODS | | |
|--|---|---|
| Allowed | Not Allowed | Exceptions |
| <p>Final product pH \leq 4.6 or water activity \leq 0.85 and heat-treated to kill vegetative cells.</p> <p>Minnesota follows federal regulations for the manufacture and sale of hemp products. Three products are designated as Generally Recognized as Safe (GRAS). These three all come from the seed of the hemp plant and can be sold as food or added as ingredients to foods and sold in Minnesota.</p> <p>1. hulled hemp seeds</p> | <p>Final product pH $>$ 4.6 or water activity $>$ 0.85.</p> <ul style="list-style-type: none"> • While some hemp extracts and cannabinoids are legal in Minnesota (like CBD), it is not legal to add them to food products or dietary supplements because MN law declares them not food. • Hemp ingredients that come from hemp plant parts other than the seeds are not allowed as food ingredients. This includes the flower of the hemp plant. | <p>Click here for the September 2023 guidance on hemp and cannabis.</p> |

| HEMP FOODS | | |
|---|---|------------|
| Allowed | Not Allowed | Exceptions |
| 2. hemp seed protein powder 3. hemp seed oil | <ul style="list-style-type: none"> Illegal ingredients may be labeled or named as hemp extract, full spectrum CBD oil, PCR extracts, or CBD oil. | |

APPENDIX

Tested Recipes

1. [Come and Bake It. Volumes I and II](#). Tested recipes for icings and frostings. NOTE: Only some of the recipes are legal in Minnesota, we use two parameters: pH \leq 4.6 or aw \leq 0.85 and Texas uses time and temp controls.
2. [Minnesota Tomato Mixture](#)
3. [So Easy to Preserve](#). Tested recipes from the University of Georgia. National Center for Home Food Preservation.
4. [National Center for Home Food Preservation](#).
5. [University of Minnesota Extension Food Preservation](#).
6. [Fresh Preserving | Ball® Kerr® Jars & Home Canning](#).
7. Tested horseradish recipe: <https://extension.oregonstate.edu/sites/default/files/documents/8836/sp50793horseradish.pdf>
8. Canned chocolate sauce: University of Wisconsin article. <https://fyi.uwex.edu/safepreserving/2013/11/18/safe-preserving-canned-chocolate-sauce/>.
9. Cooked fruit-based freezer jams, jellies, preserves. University of Wisconsin. <https://winnebago.extension.wisc.edu/files/2010/09/B2909-Making-Jams-Jellies.pdf>
10. Jams and jellies. National Center for Home Food Preservation. https://nchfp.uga.edu/how/can7_jam_jelly.html
11. Canning Tomatoes. UMN Extension. <https://extension.umn.edu/preserving-and-preparing/canning-tomato-products-safety-guidelines>.
12. Canned chocolate cranberry sauce, and chocolate raspberry sauce. Ball preserving has [tested recipes for a safe water bath canning](#).
13. A cold-fill-hold process may be used for some products as an alternative to the boiling water or steam canning process. Products must have a pH of 3.3 or below, or acidified with pH of 3.5 to 3.8. Must include a pre-cook and a cooling step. <https://foodsafety.wisc.edu/assets/coldfill2019.pdf>

Food Testing Labs

Where to Buy pH Meters

To test the pH of foods, you will need a pH meter and calibration solutions. There are numerous kits available on the market.

Where to Buy Water Activity Meters

How to Test the pH in Your Food Product

For home-canned acidified products, test pH 24 hours after processing. For fermented products, test pH upon completion of the fermentation process. For best practices, record the pH value, along with the recipe source, date, and quantity of the batch. You can use University of Minnesota Extension's Canning and pH Testing Record <https://extension.umn.edu/food-safety/food-entrepreneurs> or use [MFMA's Excel spreadsheet](#).

How to Test the Water Activity in Your Food Product

<https://extension.umn.edu/food-entrepreneurs/testing-water-activity-cottage-foods>

Educational Resources

The University of Minnesota Extension Food Safety Team's guidance on **freeze-dried** foods: <https://mfma.org/Food-Science-Library>

The Minnesota Department of Health guidance on **hemp and cannabis in foods. September 2023.**

<https://www.health.state.mn.us/people/cannabis/edibles/docs/foodoperator.pdf>

1 - **Cut fruit** is "potentially hazardous food" because it is in a form capable of supporting the rapid and progressive growth of infectious or toxigenic microorganisms. [Minnesota Rules 4626.0020, Subp 62, A. 1](#). Outside of refrigeration, these microorganisms can multiply rapidly or produce toxins, which make people sick. Please see for more in-depth information: <https://mfma.org/Food-Science-Library>

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