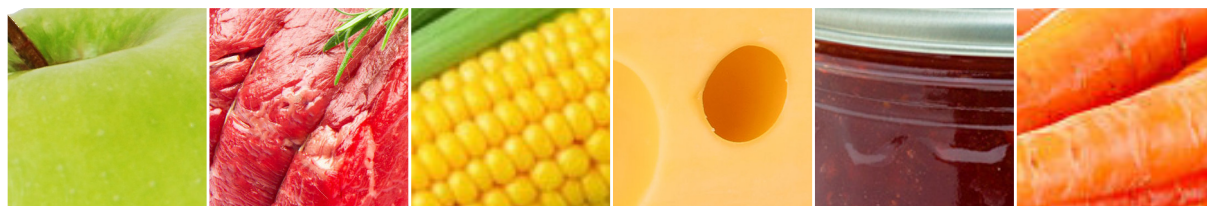


ENHANCING THE SAFETY OF LOCALLY PREPARED FOODS



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What do I need to know to sell BAKED GOODS at the farmers market

What are baked goods?

Baked goods are food products — often made from dough or batter — that are cooked using heat (i.e., baked in the oven, steamed, etc.). Some types of baked goods include:

- ▶ Bread.
- ▶ Brownies.
- ▶ Muffins.
- ▶ Cookies.
- ▶ Pies.
- ▶ Pastries.



Figure 1. There are many different types of baked goods. (Photo available at PxHere.com.)

Why produce baked goods?

Baked goods are some of the most commonly consumed foods in the United States. They are value-added foods that can be sold for a premium at a local farmers market.

Do my baked goods need to be inspected?

Some baked goods are shelf stable (don't require refrigeration), but others do require refrigeration (e.g., pastries or pies with custards or fillings; see fig. 2). If your product is shelf stable, it can be sold under the Virginia Department of Agriculture and Consumer Services retail sales exemption. But if your product requires refrigeration, it **must** be inspected through VDACS.



Figure 2. Cream pastries, cream/custard pies and cheese cake typically require time and temperature control to ensure safety. These examples of cream puffs (a) and cheesecake (b) would need to be refrigerated (40°F/4°C) or frozen. (Photos by Pixabay)

How do I know if my baked goods require refrigeration?

Baked goods containing a lot of moisture, that do not have high enough acidity (low enough pH) to control microbial growth require time and temperature control (TCS) to ensure their safety. These types of products are also sometimes referred to as “potentially hazardous foods.” Baked goods that require refrigeration should be held at refrigerated (40 °F/4 °C) or frozen conditions (i.e., frozen solid). Improper storage and handling of TCS foods can promote the growth of foodborne pathogens such as *Salmonella* and *E. coli*.

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In order to know if your product is considered a TCS food you must measure your product’s acidity (as measured by pH) and available water (a measurement called water activity [A_w]). Testing can be done through a process authority, food scientist, or food testing laboratory. You can find process authorities through the Association of Food and Drug Officials (see Resources for contact information). If you know your products pH and A_w , table 1 can help you determine if your baked goods require refrigeration.

Table 1. Determination of whether your product requires refrigeration based on the item’s pH and water activity (a_w) measurements. (Table adapted from IFT/FDA [2001].)

a_w values	pH values			
	< 4.2	4.2 to 4.6	> 4.6 to 5.0	> 5.0
< 0.88	No	No	No	No
0.88 to 0.90	No	No	No	Yes*
> 0.90 to 0.92	No	No	Yes*	Yes*
> 0.92	No	Yes*	Yes*	Yes*

*further evaluation of your process and produce by a process authority may provide alternate safety controls outside of refrigeration.

What steps must I follow to sell my product under the VDACS retail sales exemption?

Selling under a retail sales exemption means you are selling your product out of an uninspected kitchen. Each state may have different requirements. In Virginia, the requirements that must be followed are as follows (VDACS 2013):

1. The product must have a label that includes all general labeling requirements (see “How do I label my packaged baked goods for sale?”), as well as the name, physical address, and telephone number of the person preparing the food.
2. The phrase “NOT FOR RESALE – PROCESSED AND PREPARED WITHOUT STATE INSPECTION” must be displayed prominently on the front label.
3. These products can only be sold at farmers markets, from your private home, or to an individual for their own consumption.
4. These products cannot be sold across state lines, on the internet, or in stores (at wholesale).

Even if you sell your product without inspection, you must still produce a safe product and know what makes your product safe. For example, you should know that the low pH and/or low A_w of your produce prevents microbial growth. TCS foods cannot be sold under this exemption.

What steps do I need follow to sell my baked goods under inspection?

1. Decide where you are going to produce your product:
 - Out of your inspected home kitchen?
 - Out of an inspected community or commercial kitchen?

2. Familiarize yourself with the regulatory process associated with starting a food business. If you are producing from a home or commercial kitchen, refer to the VDACS Home & Commercial Kitchen-Based Businesses webpage for more information (see Resources).
3. Complete and submit the correct application that pertains to where you will be producing your baked goods. Use either the Application for Home Food Processing Operation or the Application for a Commercial Kitchen Food Processing Operation.
4. Provide documentation (upon request from VDACS or a regulatory agency) showing if your product is or is not a TCS food based on its pH and A_w .

What are some guidelines for producing baked goods safely?

All baked goods (shelf stable or requiring refrigeration) should be prepared using the following guidelines:

- ▶ Practice proper personal hygiene, including washing hands before and after baking.
- ▶ Wear food-safe gloves during food handling and food preparation.
- ▶ Use proper cleaning and sanitation practices.
- ▶ Purchase ingredients from approved, reputable sources. However, even when purchasing from reputable sources, most raw ingredients (e.g., uncooked/raw flour, raw eggs) can be sources of contamination that can lead to foodborne illness. Therefore, it is important to bake/cook your baked goods thoroughly.
- ▶ It is important to keep records during the entire production process so you can demonstrate that you have safely produced the product.
- ▶ If your baked goods require refrigeration, they **must** be kept at a temperature of 40°F/4°C or lower.

Producing and consuming raw baked goods is risky. Instructions for at-home heat treatments of ingredients (e.g., flour) might not be adequate and should not be followed. To minimize/decrease the risk of using potentially contaminated raw ingredients, you can purchase and use pasteurized eggs and commercially heat-treated flour.

How do I package and sell baked goods at the farmers market?

Baked goods can be sold with individual packaging, from a bulk container, or from a display case. If you are selling your product from a bulk container or directly from a case, you **must** provide ingredient information (including allergens) for the customer in plain view. If baked goods are sold in individually wrapped packaging, all labeling requirements that follow will apply.



How do I label my packaged baked goods for sale?

As with all other food items, products should be clearly labeled and should include:

- ▶ Product identity.
- ▶ Net weight in U.S. standard weight units and metric units.
- ▶ Ingredients (by descending weight).
- ▶ List of allergens.
- ▶ Name and address of manufacturer.
- ▶ Consumer storage and preparation instructions.
- ▶ If your product requires refrigeration, a shelf-life (expiration) date must be included. The shelf-life/expiration date is seven days from the day of production (which is Day 1).
- ▶ The label must also include a direction to **“Keep Refrigerated.”** This statement should be easy to read and prominently displayed on the label. Consider placing this statement on more than one side of your package so that consumers will be more likely to see it.
- ▶ If you are selling your product under the retail sales exemption, you must have the phrase “NOT FOR RESALE – PROCESSED AND PREPARED WITHOUT STATE INSPECTION” displayed prominently on the front label.

Resources

Association of Food and Drug Officials. 2019. “Food Processing Authorities.” www.afdo.org/foodprocessing.

Virginia Department of Agriculture and Consumer Services. 2019. “Home & Commercial Kitchen-Based Businesses.” www.vdacs.virginia.gov/dairy-kitchen-food-services-businesses.shtml.

References

IFT/FDA (Institute of Food Technologists, U.S. Food and Drug Administration). 2001. Evaluation and Definition of Potentially Hazardous Foods. Comprehensive Reviews in Food Science and Food Safety. IFT/FDA Report on Task Order 4. www.fda.gov/files/food/published/Evaluation-and-Definition-of-Potentially-Hazardous-Foods.pdf.

VDACS (Virginia Department of Agriculture and Consumer Services). 2013. Virginia’s New Home Kitchen Food Processing Exemptions. VDACS Food Safety and Security Program. www.vdacs.virginia.gov/pdf/kitchenbillfaq.pdf.