

Decision Tree: Is it an “acidified low-acid food or beverage”?

Acid foods are foods that have a natural pH of **4.6 or below**.

Low-acid canned foods have an equilibrium pH **above 4.6** and **water activity** above 0.85. Shelf-stable low-acid foods are regulated under Chapter 21 of the Code of Federal Regulations (CFR) part 113 (21 CFR 113) www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=113

Acidified foods have an equilibrium **pH of 4.6 or below** and **water activity** above 0.85 (21 CFR 114). *Acidified foods means low-acid foods to which acid(s) or acid food(s) are added; these foods include, but are not limited to, beans, cucumbers, cabbage, artichokes, cauliflower, puddings, peppers, tropical fruits, and fish, singly or in any combination. They have a water activity (aw) greater than 0.85 and have a finished equilibrium pH of 4.6 or below. These foods may be called, or may purport to be, “pickles” or “pickled ____.” Carbonated beverages, jams, jellies, preserves, acid foods (including such foods as standardized and non-standardized food dressings and condiment sauces) that contain small amounts of low-acid food(s) and have a resultant finished equilibrium pH that does not significantly differ from that of the predominant acid or acid food, and foods that are stored, distributed, and retailed under refrigeration are excluded from the coverage of this part.*

www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=114

To determine if your product may be ‘acidified’, answer the following questions:

1. My product will be distributed and sold at room temperature.

NO _____ Kept refrigerated or frozen. Labeled ‘Keep Refrigerated’ or ‘Keep Frozen’. → **Not an acidified food or beverage** regardless of pH.

YES _____ Proceed to question 2

2. My product is fermented to pH 4.6 or below, carbonated, OR meets the Standard of Identity for a jam, jelly or preserve (21 CFR 150).

NO _____ Proceed to question 3

YES _____ **Fermented foods** are **excluded from coverage under 21 CFR 114** (not acidified) if all the following are true:

_____ fermented to pH 4.6 or below, with pH drop maintained over time

_____ product is heat-treated (canned) OR kept refrigerated,

_____ no ingredients added after fermentation (fresh cover brine is acceptable)

_____ processor has a food safety plan in place.

Carbonated **beverages** are **excluded** from the canning regulations.

_____ Standard process is on file for delivering, and maintaining, carbonation.

Fruit butters, jams, jellies and preserves that meet a standard of identity (SOI) (21 CFR 150) are **excluded** from coverage under 21 CFR 114. A recipe review may be required to establish exclusion.

_____ Standard process is on file supporting how Standard is met.*

_____ Thermal process is required (hot-fill-hold suffices).

*Document that explains proportions that a processor must use to manufacture a SOI gelled fruit product [here](#).

3. My product has a water activity greater than 0.85.

NO _____ A food or beverage with water activity less than 0.85 **does not meet the definition of an Acidified Food**, regardless of pH.
_____ Process review needed to document exclusion under 21 CFR 113/114 and to outline critical factors for safe manufacture.

YES _____ Proceed to question 4

4. My product has a natural or normal pH of 4.6 or above.

NO _____ **Naturally acid** foods are fruits such as apples, peaches and pears.

YES _____ Proceed to question 5

5. My product is a low-acid food, such as a vegetable or vegetable juice, with added acid, or mixed with acid or acid foods to create a food with an equilibrium pH of 4.6 or below.

YES _____ Product meets the definition of an **acidified low-acid food**.

Example of foods that, when heat processed and packaged in hermetically sealed containers do not meet the definition of ‘acidified foods’*

Naturally acidic foods	Canned peaches
Jams or jellies or preserves (SOI, 21 CFR 150)	Strawberry jam
Dressings and Condiment Sauces (containing a small amount of low-acid foods; pH is not different from the acid or acid food)	Tarragon vinegar
Fermented foods (no added ingredients)	Sauerkraut
Low water activity foods	Vanilla syrup (coffee flavoring)

*A **Processing Authority** is generally required to assist in making a determination as to whether a food is covered under the canning regulations (21 CFR 113/114) and when it is not.

Dr. Barbara Ingham. February 2024.



