ACIDIFIED FOOD REGULATIONS

There are federal regulations enforced by the U.S. Food and Drug Administration and the state health department that cover acidified foods. These regulations can be found in 21 CFR 108.25 and 114.

It is very important that any manufacturer of these types of foods understands these regulations. One of the keys to producing a safe food is having a consistent process that has been proven to work. Once the process is developed, the manufacturer has to produce the item the same way each time. Variations in the process make it possible for mistakes that produce an unsafe food.

There are some foods that are exempt from these regulations. Foods that are specifically exempt from the acidified foods regulations include:

- Alcoholic beverages
- Carbonated beverages
- Fermented foods such as sauerkraut
- Foods with water activity (aw) of 0.85 or below
- Foods stored, distributed and retailed under refrigerated conditions
- Jams, jellies or preserves covered by 21 CFR 150

ADDITIONAL RESOURCES

**Meat and Poultry Products**
United States Department of Agriculture, 785-841-5600, usda.gov or
Missouri Department of Agriculture, 573-751-4762, mda.mo.gov

**Milk or Other Dairy Processes**
Missouri State Milk Board, 573-751-3830, mda.mo.gov/animals/milk

**Agricultural Products**
Missouri Department of Agriculture, 573-751-4762, mda.mo.gov

**Acidified Foods**
Missouri Department of Health and Senior Services, Bureau of Environmental Health Services, 573-751-6095, health.mo.gov

**General Information on Food Safety**
Food and Drug Administration (FDA), 1-888-723-3366, fda.gov
Acidiﬁed Foods

FACILITY REQUIREMENTS
The Missouri Food Code allows some non-potentially hazardous foods to be prepared in a home kitchen to be sold directly to the end consumer, at venues like a farmer’s markets. The food code does not allow acidifi ed foods to be made in a home kitchen. Requirements for a regulated kitchen include:
• smooth, easily cleanable, durable ﬂ oors, walls and ceilings
• safe and adequate water supply
• sanitary wastewater disposal
• sink(s) to wash, rinse and sanitize utensils
• separate sink dedicated for handwashing

This kitchen may be in a private home but must be separated from the home kitchen and living quarters.

Plans for building a regulated kitchen should be discussed with the health department before construction begins. This can avoid costly mistakes.

PROCESS AUTHORITY AND BETTER PROCESS CONTROL SCHOOLS
To be approved as a manufacturer of acidifi ed or low-acid canned food, you must have your process reviewed by a process authority. You also must attend a Better Process Control School.

A process authority is deﬁ ned as a person or organization that scientiﬁ cally establishes thermal processes for low-acid canned foods or processing requirements for acididiﬁ ed foods. The process authority must have expert scientiﬁ c knowledge of thermal and/or acididiﬁ cation processing requirements and have adequate experience and facilities for making such determinations.

Better Process Control Schools certify supervisors of thermal processing systems, acididiﬁ cation, and container closure evaluation programs for low-acid and acididiﬁ ed canned foods.

Information on approved schools can be found by calling the Missouri Department of Health and Senior Services (DHSS), Bureau of Environmental Health Services at 573-751-6095.

Once these steps have been accomplished, the food processor is required to ﬁ le their process with the FDA.

Acidiﬁed/low acid food manufacturers must:
• have their process reviewed by a process authority;
• complete a Better Process Control School;
• operate in a facility that meets requirements of all applicable regulations; and
• contact the DHSS Manufactured Foods Program for more detailed information on inspections.

SAFE PREPARATION FOR RETAIL SALE
When foods are packaged in sealed containers like jars or cans and they are not properly processed, one of the biggest risks is botulism. There are a number of ways to successfully deal with these hazards.

One option is to use high heat and pressure to kill any bacteria or their spores that may be present. This is the process used to can low-acid foods like corn, green beans or other vegetables. Because these heating procedures are complex, these foods must be processed in a commercial retort with sophisticated temperature measuring and monitoring controls.

Another common way to eliminate the threat of botulism from sealed foods is through the use of acids to lower the pH. The pH scale is used to measure the acidity of food products. (pH is measured on a scale of 0 to 14.) Acid foods are naturally acidic foods such as tomato juice or grapefruit. Individuals manufacturing acid food products will need to keep records of the pH of each batch that they produce. If the pH is below 4.6, a quality pH meter is needed. If a pH meter is used, it must be calibrated at least weekly and records kept.

PRESERVING FOODS
The regulations regarding acididiﬁ cation were established to assure the safety of canned foods. The amount of acid in a food or the addition of an acid to a food can be used to control the growth of dangerous bacteria such as the one that produces the toxin that causes botulism. From the regulatory point of view, foods are categorized as:
• Acid foods (pH naturally below 4.6
• Acididiﬁ ed foods (ﬁ nal pH of 4.6 or below by adding acid or acidic ingredients to product)
• Low acid foods (pH above 4.6 for raw or initial product)

Acidiﬁed Foods
Salsa, Pickles, BBQ Sauce and Other Acididiﬁ ed Foods
Pickles, salsa and barbeque sauce are just a few of the common examples of acididiﬁ ed foods that may be found at farmer’s markets. However, Missouri regulations prohibit the sale of most home-canned food. Processors of these foods must take additional measures to assure they are being produced safely. These foods must be produced in an approved facility.

Contact your local public health agency or the DHSS Manufactured Food Program for details on becoming approved.

Pickles, salsa and barbecue sauce are just a few of the common examples of acididiﬁ ed foods that may be found at farmer’s markets. However, Missouri regulations prohibit the sale of most home-canned food. Processors of these foods must take additional measures to assure they are being produced safely. These foods must be produced in an approved facility.

Information on approved schools can be found by calling the Missouri Department of Health and Senior Services (DHSS), Bureau of Environmental Health Services at 573-751-6095.

Once these steps have been accomplished, the food processor is required to ﬁ le their process with the FDA.

Contact your local public health agency or the DHSS Manufactured Food Program for details on becoming approved.

SAFE PREPARATION FOR RETAIL SALE
When foods are packaged in sealed containers like jars or cans and they are not properly processed, one of the biggest risks is botulism. There are a number of ways to successfully deal with these hazards.

One option is to use high heat and pressure to kill any bacteria or their spores that may be present. This is the process used to can low-acid foods like corn, green beans or other vegetables. Because these heating procedures are complex, these foods must be processed in a commercial retort with sophisticated temperature measuring and monitoring controls.

Another common way to eliminate the threat of botulism from sealed foods is through the use of acids to lower the pH. The pH scale is used to measure the acidity of food products. (pH is measured on a scale of 0 to 14.) Acid foods are naturally acidic foods such as tomato juice or grapefruit. Individuals manufacturing acid food products will need to keep records of the pH of each batch that they produce. If the pH is below 4.6, a quality pH meter is needed. If a pH meter is used, it must be calibrated at least weekly and records kept.

PRESERVING FOODS
The regulations regarding acididiﬁ cation were established to assure the safety of canned foods. The amount of acid in a food or the addition of an acid to a food can be used to control the growth of dangerous bacteria such as the one that produces the toxin that causes botulism. From the regulatory point of view, foods are categorized as:
• Acid foods (pH naturally below 4.6
• Acididiﬁ ed foods (ﬁ nal pH of 4.6 or below by adding acid or acidic ingredients to product)
• Low acid foods (pH above 4.6 for raw or initial product)