

Ciders and Juices

Although juices and ciders do not fall within the Ohio Food Safety Code's definition of "potentially hazardous food," the potential for juices and ciders to have illness causing infectious/toxic microorganisms or chemical/physical contaminants makes them a "high risk food."¹ Because high risk foods can be especially dangerous for young children, older adults, and those with weakened immune systems, producers need to take extra care in the production and labeling of these products.²

To address the risk of food borne illnesses associated with ciders and juices, the FDA has established (and Ohio has largely adopted) a rule requiring processors to employ pasteurization or other similar process to achieve a 5-log reduction in the number of pathogens found within the product, and they must use Hazard Analysis and Critical Control Point (HACCP) principles for processing.³ HACCP regulations apply to cider and juice products sold both in state and out of state, though there are some circumstances where a producer may be exempt from complete HACCP compliance.

Regulation

Hazard Analysis and Critical Control Point (HACCP)

HACCP plans require juice producers to evaluate the hazards that are reasonably likely to occur for each juice they would like to produce and create individual plans to address the hazards that have been identified.⁴ Requirements under the HACCP include good manufacturing practices, sanitation standard operation procedures, a written hazard analysis, and an HACCP plan that will consistently produce a minimum of a 5-log pathogen reduction.⁵ 5-log pathogen reduction may be able to be achieved in several ways, with pasteurization being a common method. Plans must be written by certified individuals who have completed appropriate training in the application of HACCP principles to juice processing.⁶ Failure to create and



implement a proper hazard analysis and critical control point plan may result in cider and juice products being declared as adulterated.⁷

Sanitation standard operating procedures should be regularly monitored and should include sanitation controls for:⁸

- water safety for water that comes in contact with food;
- condition and cleanliness of food contact surfaces, utensils, gloves, and outer garments;
- prevention of cross contamination from any insanitary objects to food;
- maintenance of hand sanitizing and toilet facilities;
- protection of food, food equipment, and food packaging material from contaminants;
- proper labeling, storage, and use of toxic compounds;
- control of employee health conditions that could result in contamination of food;
- exclusion of pests from food.

A hazard analysis determines whether there are food hazards reasonably likely to occur for the juice being processed and to identify control measures for those hazards.⁹ Hazards that are considered include microbiological contamination, parasite, chemicals, pesticides, decomposition of food, natural toxins, unapproved additives, presence of undeclared allergens,

1 OAC 3717-1-01(B)(101)

2 OAC 3717-1-03.7(A)

3 OAC 901:3-23

4 21 CFR 120

5 OAC 901:3-23-07, 5-log reduction consists of pasteurization or other methods used to reduce 99.999% in microorganisms of concern.

6 21 CFR 120.8, 21 CFR 120.13, OAC 901:3-23-04, 901:3-23-08

7 OAC 901:3-23-10

8 21 CFR 120.6, OAC 901:3-23-02

9 21 CFR 120.7, OAC 901:3-23-03

and physical hazards.¹⁰ A written hazard analysis will, at minimum, consist of:

- identification of food hazards;
- an evaluation of each food hazard to determine if it is reasonably likely to occur, thus requiring an HACCP plan;
- identification of control measures that can apply to control food hazards that are reasonably likely to occur;
- review of the current process to determine if any changes can be made;
- identification of critical control points.

Whenever a hazard analysis identifies one or more food hazards as reasonably likely to occur, an HACCP plan must be created, verified, validated and implemented.¹¹ At a minimum, a HACCP plan will list:

- an approved process to achieve a 5-log reduction in pertinent pathogenic microorganism hazards reasonably likely to occur;
- critical points for each of the identified hazards;
- critical limits that must be met at each of the critical points;
- procedures to monitor critical points;
- any corrective action plan that has been properly developed;
- a record-keeping system.

Corrective actions must occur whenever there is a deviation from the critical limits set in HACCP plans.¹² Corrective action can either be established in the HACCP, or can follow the following plan:

- segregate and hold affected product;
- perform a review to determine the acceptability of the product for sale;
- take action to ensure no product that is injurious to health enters commerce;
- take action to correct the cause of the deviation from the critical point;
- perform timely reassessment with an individual trained in HACCP principles.

All corrective actions must be properly recorded in compliance with the record keeping procedures.¹³

For more Juice HACCP guidance, please visit FDA's website: ofb.ag/juiceguidance.

HACCP Exemptions

There are a couple of exemptions to HACCP compliance allotted by state and federal law; however, this does not mean there are no other regulatory requirements that will apply to production.

Raw cider and juice (juice and cider that has not undergone a 5-log reduction) may be sold at the site of production if the facility is licensed by the local health department as a retail food establishment, a licensed food establishment with ODA, or a registered farm market.¹⁴ Registered farm markets or food processing facilities that would like to sell raw juice or cider will be inspected by ODA Division of Food Safety to make sure the facility is in compliance with good manufacturing practices.¹⁵ Outside of the ODA licensing exemptions, a premise that produces, stores, prepares, manufactures, or otherwise handles juice is a retail food establishment that will need to apply for a license with their local health department in order to sell their product to consumers.¹⁶ Please see the licensing section for more information.

Ohio law requires unfermented cider to be manufactured by using a mechanical washing and scrubbing device equipped with automatic scrubbing brushes and a means to add sanitizer to the water in order to remove orchard soil and dirt from the fruit prior to crushing the fruit.¹⁷ "Cider" is the unfermented juice, obtained by mechanically expressing the juice from sound, mature, non-citrus fruit, from which is removed excess pulp and seeds, other than embryonic seeds and small fragments of seeds that cannot be separated by good manufacturing practice.¹⁸

Packaging and Label

Fresh juice packaged in a food service operation or retail food establishment must be honestly presented and contain the following information:¹⁹

- **Statement of Responsibility:** The name and address of the business of the operation. The address must include the street address, the city or town, the state, and zip code. Additional information such as telephone numbers, web addresses and email addresses are permitted but must not be placed between the ingredient list and the required information for the Statement of Responsibility and cannot be used in lieu of the Statement of Responsibility.²⁰
- **Statement of Identity:** The common or usual name of the food product that accurately describes the nature of the food or its characterizing properties in bold type font on the principal panel of display. Juices made from concentrate must be labeled with terms such as "from concentrate," or "reconstituted" as part of the name. Beverages that contain juice must declare the % of juice on the information panel near the top. If there is no informational panel, the % of juice may be placed on the

10 21 CFR 120.7(c)

11 21 CFR 120.11, OAC 901:3-23-06

12 21 CFR 120.10, OAC 901:3-23-05

13 21 CFR 120.12, OAC 901:3-23-07

14 21 CFR 120.12, OAC 301:3-23-07

15 ORC 3715.021, OAC 301:3-17, 21 CFR 117

16 ORC 3717.22

17 ORC 3715.27(B)

18 ORC 3715.27(A)

19 OAC 3717-1-08

20 21 CFR 101.5

Label Example

**BASIC REQUIRED JUICE LABELING COMPONENTS
APPLE CIDER LABEL EXAMPLE**

This label example is just one way to present the information required on a food product label. Information may be placed in different ways and may appear on more than one label. Labels must comply with all applicable regulations and all information must be accurate and not misleading.

Ingredient List – Ingredients shall be listed by common or usual name in descending order of predominance by weight. Meaning, the ingredient that weighs the most is listed first, followed by the next heaviest ingredient, with the ingredient that weighs the least listed last. Single ingredient food products are not required to have an ingredient statement.

Ref: CFR 21, Part 101.4

Statement of Identity – The Statement of Identity is the name of the food. The name shall be the common or usual name of the food and shall accurately identify or describe the basic nature of the food or its characterizing properties or ingredients. Juices made from concentrate must be labeled with terms such as “from concentrate,” or “reconstituted” as part of the name.

Beverages that claim to contain fruit or vegetable juice must declare the percentage of juice in the beverage. The percent juice must be on the information panel near the top. If the package does not have an information panel, the percent juice must be placed on the principal display panel in a type size as large as the net quantity of contents.

Ref: CFR 21, Part 101.3
Ref: CFR 21, Part 102.33

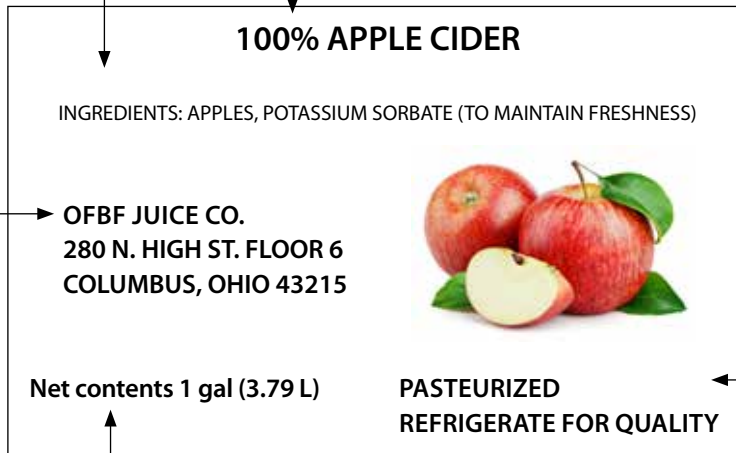
Statement of Responsibility – Shall include the:

Business Name
Street Address
City, State, Zip Code

All information in the Statement of Responsibility shall be continuous. If the business name is listed in the local telephone directory, the street address may be omitted. If the business name is listed in the local telephone directory, a Post Office Box may be used in place of the street address.

Telephone numbers, website addresses, and e-mail addresses are permitted, but not required. This type of extra information shall not be placed between the Ingredient List and the Statement of Responsibility.

Ref: CFR 21, Part 101.5



Keep Refrigerated – ODA recommends any product requiring refrigeration for food safety or to maintain quality bear the declaration “Keep Refrigerated” or a similar declaration to that effect.

Pasteurized – Pasteurization is a heat treatment sufficient to destroy pathogens. Therefore, to be labeled as “pasteurized,” a juice must be heat treated to destroy pathogens.

Net Quantity of Contents – The Net Quantity of Contents shall be declared in both the U.S. Customary System and the SI (metric system). The second declaration shall be stated parenthetically. The term “Net Contents” is optional.

The quantity of contents shall be placed on the principal display panel. It shall be within the bottom 30% of the area of the label panel in lines that are generally parallel to the bottom of the package as it is designed to be displayed.

Note: Labeling requirements for Net Quantity of Contents is under the purview of the ODA Division of Weights and Measures. Local enforcement is provided by Weights and Measures programs administered by the county Auditors’ throughout the state of Ohio

Ref: CFR 21, Part 101.7
Ref: FPLA, Title 15 – Chapter 39, 1453(a) (2)

Warning Statement – All juices that are not processed to kill harmful bacteria that can cause illness in those who consume it must have the following warning statement:

WARNING: This product has not been pasteurized and, therefore, may contain harmful bacteria that can cause serious illness in children, the elderly, and persons with weakened immune systems.

ODA – Ohio Department of Agriculture CFR – Code of Federal Regulations ORC – Ohio Revised Code
FPLA – Fair Packaging and Labeling Act FALCPA – Food Allergen Labeling and Consumer Protection Act

The principal display panel (PDP) is that portion of the package label that is most likely to be seen by the consumer at the time of purchase.

The information panel is the label panel immediately to the right of the PDP, as seen by the consumer facing the product.

principal display panel in the same size as the net quantity of contents. The % of juice is calculated on a volume/volume basis.²¹ Any beverage containing less than 100% juice must qualify the word “juice” with another term such as “beverage.”²² For mixed fruit or vegetable juices, the name of the juices must be in descending order of predominance by volume or indicate that the juice is a “juice blend.”²³

- **Ingredient List:** The ingredients of the food product by their common or usual name, in descending order of predominance by weight (meaning heaviest ingredient is listed first). Single ingredient food products are not required to have an ingredient statement.²⁴
- **Net Quantity of Contents:** The net weight and volume of the food product in both the U.S. Customary System and the SI metric system in a prominent and distinct location on a principal display of the food package. The term “NET WT” or other appropriate abbreviation must be used immediately prior to stating the quantity of food contained within the package (Ex. NET WT 1 GAL (3.79 L)).²⁵ No qualifying phrases should be used in the net quantity of contents statement to exaggerate the amount of food (e.g. Net Wt. = 1 Large gal. (3.79 L) is not acceptable).²⁶ The net weight only includes the average quantity of food within the package and does not include the weight of the packing materials.²⁷ The quantity must be placed somewhere on the bottom 30% of the principal display panel.
- **Warning Statement:** Fresh juice or any beverage containing fresh juice must contain the following warning statement: WARNING: This product has not been pasteurized and, therefore, may contain harmful bacteria that can cause serious illness in children, the elderly, and persons with weakened immune systems.²⁸
- **Keep Refrigerated:** ODA recommends any product requiring refrigeration for food safety or to maintain quality should display “keep refrigerated,” “refrigerate for quality,” or something similar.
- **Pasteurized:** Juice that has been properly heat treated/pasteurized to destroy pathogens may be labeled as “pasteurized.” Note, only juice or cider that has not undergone pasteurization or another form of acceptable treatment must include the above warning statement on the label.

If the label makes a nutrient content or health claim, then

21 21 CFR 101.3, 21 CFR 101.30, 21 CFR 102.33

22 21 CFR 102.33

23 21 CFR 102.33

24 21 CFR 101.4

25 21 CFR 101.7; FPLA, Title 15 – Chapter 39, 1453(a) (2)

26 21 CFR 101.105(o)

27 21 CFR 101.5(g)

28 21 CFR 101.17(g), OAC 3717-1-08

the label must also contain all of the nutritional information in the form of a Nutritional Facts panel as prescribed by federal law.²⁹

Checklist

- Q1** Do you need to develop an HACCP program for your farm?
- Q2** Have you registered with the Ohio Department of Agriculture?
- Q3** Do you need a Retail Food Establishment License?
- Q4** Have you developed a label that provides all of the required information, including the required warning statement when needed?

Contact and Resources

Ohio Department of Agriculture, Division of Food Safety
 Phone: (614) 246-8256
 Email: foodsafety@agri.ohio.gov
 Web: ofb.ag/applecider

Additional Resources

FDA HACCP Information Page: ofb.ag/haccp