SUGARHOUSE CERTIFICATION CHECKLIST

Sugarhouse Certified Vermont Maple

January 2024

Sugarhouse Certification Checklist

VMSMA's Sugarhouse Certification Checklist focuses only on the manufacturing of pure maple syrup. It is intended to help organize materials and assess current food safety preparedness. This checklist is NOT itself a food safety plan; it is only an assessment tool to assist in the development of a plan for a specific sugarhouse to follow good food safety practices.

The Checklist references sections of Title 21 (Food and Drugs), Part 117 of the Code of Federal Regulations (CFR) that define current good manufacturing practices, hazard analysis and risk-based preventative controls for human food. You can find the entire text of Chapter 21, Part 117 online here.

Sugarhouse Certifier to complete this section

Sugarhouse Name:_____

Date & Time of Certification

Beginning Date:_____ Time:_____

Ending Date:_____ Time:_____

Was sugarhouse in operation at time of certification? __ Yes __ No

1. Lead Mitigation (21 CFR § 117.110)

Criteria	Yes	No	N/A
1.1 Sugar maker is utilizing quality control measures that eliminate introduced lead level defects.			
1.2 No galvanized equipment			
1.3 No lead solder			
1.4 No bronze pumps or fittings (bronze may contain up to 7% lead)			
1.5 No copper in contact with sap or syrup (copper may contain up to 1% lead)			

Additional notes and documentation:

2. Personnel (21 CFR 117.10)

Criteria	Yes	No	N/A
2.1 The sugarhouse has implemented a sugarhouse operational manual that incorporates current Good Manufacturing Practices (cGMPs).			
2.2 The sugarhouse has a designated sugar maker to oversee the operational manual. **Name of designated sugar maker:**			
2.3 All personnel (paid and unpaid) have experience and training to produce clean and safe maple products.			
2.4 All staff have received training on sanitation and hygiene practices (review training records)**.** Each employee must receive training in the principles of food hygiene and food safety that is appropriate to the production, the farm, and the individual's assigned duties.			
2.5 Personnel are instructed not to come to work when sick.			
2.6 Personnel are instructed to report and seek prompt treatment with clean first aid supplies for burns, cuts, abrasions, open skin, and other injuries.			
2.7 Sugarhouse posts a sign for all visitors (non-working) to read indicating food safety expectations.			
2.8 Visitors (non-working) sign a log upon entering the sugarhouse or other food production/processing areas.			
2.9 Smoking, eating, drinking and storage of personal effects are confined to designated areas separate from where product is handled.			
2.10 All toilet/restroom/field sanitation facilities are properly supplied with single use paper towels, toilet paper, hand soap, and water.			
2.11 Hand washing water meets the microbial standard for drinking water. Water must be tested (and pass) annually, unless the sugarhouse is on a municipal water supply. The water sample for testing must be pulled from the point of use.			

Criteria *(continued)*	**Yes**	**No**	**N/A**
2.12 All toilet/restroom/field sanitation facilities have a door and are serviced and cleaned. Must be accessible to sugarhouse.			
2.13 Personnel wash their hands before returning to work station.			
2.14 Personnel and visitors follow good hygiene practices.			

Additional notes and documentation:

- Training records for personnel on sanitation and hygiene practices
- Visitor sign on food safety
- Visitor log
- Sugarhouse policies/manual

3. Sap Collection & Storage (21 CFR 117.20)

Criteria	Yes	No	N/A
3.1 Review sugarbush and facility map, including sap collection locations, locations of bulk containers, and vacuum and compressor locations.			
3.2 Review documents for sap purchasing (if applicable).			
3.3 Policy and/or log that specifies/tracks how collected and stored sap is maintained at the highest quality with regular inspection and cleaning of bulk storage containers			
3.4 Is sap collected and stored in food grade containers?			
3.5 Are non-food grade containers clearly marked or color-coded?			
3.6 Are bulk containers protected from contamination?			
3.7 Verify that exhaust from vacuum pumps and petroleum-based fuel sources do not contaminate maple products or sap contact surfaces.			

Additional notes and documentation:

- Sugarbush and facility map, including locations for sap collection, sap storage, bulk containers and vacuum and compressor locations
- Sap collection and storage logs

4. Sugarhouse and Grounds (21 CFR 117.20 & 117.35)

Criteria	Yes	No	N/A
Sugarhouse Opening Procedures			
4.1 Sugarhouse has a procedure for starting from off-season/non-operation.			
4.2 Age of sugarhouse and evaporator (and condition of each):			
4.3 Age of RO machine(s) and condition:			
Maintenance, Pests and Drainage			
4.4 The interiors of the buildings are neat and clean.			
4.5 Review pest control methods (review policy) and bird/bat exclusion. If using bait stations, review map of locations.			
4.6 All chemicals are appropriately stored and documented, including cleaners, chemicals, fuels, and pesticides.			
4.7 A Safety Data Sheet (SDS) is present for every chemical used in the maple operation, including but not limited to cleaners for tubing, pans, and reverse osmosis membranes.			
4.8 There are appropriate methods and equipment for neutralizing and disposing of wastewater solutions resulting from cleaning maple equipment.			
4.9 All chemicals are stored in a secure space and properly separated by type, such as acids separated from bases.			
4.10 Is personal protective equipment (PPE) available and are personnel trained on where it is stored and how to use it?			
4.11 All sugarhouse lights in or near storage or food production are protected from glass breakage.			
4.12 Is defoamer used? Defoamer should be stored separately from other chemicals and in such a way that prevents rancidity. If defoamer is transferred to another container, it needs to be clearly labeled and food safe. Note date codes on defoamer and how stored:			

Criteria	**Yes**	**No**	**N/A**
Maintenance, Pests & Drainage			
4.13 Do all garbage cans have lids?			
4.14 There is protection to prevent loose debris (flaking paint, etc.) from falling into a tank, pan, or other container that will contact sap or syrup.			
4.15 Verify that sap transfer pump is only used for sap or syrup.			
Bathroom Facilities			
4.16 What is the water supply for cleaning equipment and hands? Please note if there are multiple water supplies:			
4.17 What methods are used for sewage disposal?			
4.18 Sugarhouse has a hand washing station with single use paper towels, hand soap and water.			

Additional notes and documentation:

- Sugarhouse start-up procedures

- Water test results

5. Evaporating Processes: Equipment and Utensils (21 CFR 117.40 & 117.80)

Criteria	Yes	No	N/A
Processes and Controls			
5.1 Verify that sugar maker's policies indicate that they dispose of product that does not meet food safety standards.			
5.2 Overall sanitation of the sugarhouse is under the supervision of one or more competent individuals.			
Equipment, Utensils & Food Contact Materials			
5.3 Policy on cleaning process and approved chemicals is included in policy manual. Policy requires that instructions for each cleaning chemical are followed.			
5.4 Equipment cleaning chemicals are labeled and approved.			
5.5 Cleaning chemicals are stored away from food production area.			
5.6 Draw off pails, scoops and skimmers, and testing cups are in good condition and stored in a sanitary manner.			
Allergen Cross Contact Prevention			
5.7 Production procedures do not contribute to allergen cross contact and contamination from any source. Allergens: milk, eggs, peanuts, tree nuts, soy, wheat, fish, crustacean/shellfish, sesame.			
5.8 Sugar maker has a policy on how outside food is separated from food production areas.			
5.9 Verify defoamer does not contain allergens and is safe for human consumption.			
Raw Sap, Concentrate & Syrup Handling			
5.10 Sap filters, filter press and filter papers are clean at the time of use, with no evidence of mold or unsuitable odors.			
5.11 Sugar maker has a policy that specifies how concentrate and syrup are appropriately stored.			
5.12 When appropriate, only food grade lubricant is used on any sap or syrup contact areas (e.g., evaporator, filter press, o-ring connections).			
5.13 Verify that any diatomaceous earth used is food grade and is stored in its original bag. Open DE is placed in a clean, dry, food safe container which is appropriately labeled.			

Criteria	Yes	No	N/A
Raw Sap, Concentrate & Syrup Handling *(continued)*			
5.14 Boil records are maintained.			
5.15 Review evaporator shutdown procedure			
5.16 Appropriate grade of plastic used throughout (e.g. PVC pipes, fittings, and buckets that touch sap or syrup) – PVC or plastic must be labeled as food grade or for potable water (marked with "PW", "NSF 51", or "NSF 61"). Fernco fittings are not considered food appropriate.			
5.17 Is non-food equipment clearly labeled as such?			
5.18 Is water added to pan?			

Additional notes and documentation:

- Defoamer label
- Food grade lubricant label
- Diatomaceous earth label
- Boil records

6. Packing Syrup (21 CFR 117.80)

Criteria	Yes	No	N/A
Location of Processing and Packing of Retail Syrup Containers			
Location of processing and packing of retail syrup containers:			
Packing Procedure & Policy			
6.1 Sugar maker has a policy for grading syrup according to Vermont standards. If temporary grading kit used, provide year of kit:			
6.2 Verify that before packing retail containers, density is checked with a calibrated hydrometer.			
6.3 All syrup is packed at a minimum of 180 degrees Fahrenheit with a calibrated thermometer.			
6.4 All containers are inspected for foreign debris prior to filling.			
Retail Packing Area			
6.5 Retail packing area has a handwashing station that includes clean water, soap, disposable towels and a trash can with a lid.			
6.6 If retail packing area is different from sugarhouse, water must be tested (and pass) annually, unless on a municipal water supply. Water sample for testing must be pulled from point of use.			
6.7 Retail containers are stored in a clean, dry area that is protected from pests and other contaminants.			
6.8 Verify that retail containers are approved for food contact, appropriate for hot fill temperature, new, and clean prior to filling.			
6.9 Retail container labels meet Vermont maple regulations and applicable FDA food labeling regulations.			
6.10 All surfaces that come in contact with food products are cleanable.			
6.11 Pest control methods follow guidelines on product label.			
6.12 Is syrup transfer method food safe?			
6.13 If home kitchen is used for packing retail containers **or** retail containers are being packed where allergen containing value-added products are produced, sugar maker is using cleaning protocols, dedicated equipment, and scheduling practices to prevent allergen cross-contamination.			

Bulk Packing			
6.14 All syrup in bulk containers is packed at 180 degrees Fahrenheit with a calibrated thermometer.			
6.15 All lights in or near storage or food production are protected from glass breakage.			
6.16 Drums and other bulk containers not actively being filled are protected from debris, pests and other contaminants.			
6.17 All bulk syrup containers are cleaned and inspected for foreign debris, rust, and unsuitable odors prior to filling.			
6.18 Each drum is labeled with the sugarhouse name, lot number, grade and clearly states that the drum contains maple syrup.			
6.19 Verify sugar maker keeps records of bulk containers that include at a minimum: barrel number, lot number, date, weight/volume and grade.			

Additional notes and documentation:

- Drum cleaning records
- Thermometer calibration
- Hydrometer calibration
- Density logs

7. Storage & Traceability (21 CFR 117.93)

Criteria	Yes	No	N/A
7.1 Sugar maker has a system to create lot numbers in order to code each batch of syrup so that they can be traced back in case of a recall.			
7.2 Sugar maker has a system for creating lot numbers to trace purchased and repackaged syrup.			
7.3 Labeling system needs to ensure sugar maker can trace where each batch of syrup was sold and that end user can trace syrup back to the sugar maker (two-way tracking).			
7.4 All bulk and retail containers are clearly identified as containing maple syrup.			
7.5 Verify that stored syrup continues to be protected against allergens and cross-contamination.			
7.6 Verify sugar maker has a protocol for creating new lot numbers when mixing batches of syrup.			

Additional notes and documentation:

- Product coding sample and policy

8. Pure Maple Confections (Maple Sugar Candies, Maple Cream, Granulated Maple Sugar)

This Certification only applies to maple confections when the only ingredient is pure maple syrup. Note that when you are producing items labeled “pure maple”, “100% pure Vermont maple”, etc. you may not add the enzyme invertase to maple cream or preservatives to any of these confections. You can find Vermont’s statutes for maple online here and Vermont’s Agency of Agriculture, Food and Markets’ Maple Products Regulations online here for more details.

Criteria	Yes	No	N/A
Location of processing and packing of pure maple confections:			
Maple Confection Production Procedure & Policy			
8.1 Sugar maker has a production policy for each pure maple confection that they produce.			
8.2 The syrup for all confections is cooked to the desired temperature with a calibrated thermometer. *The temperatures are approximately 234 degrees F for cream, 238 degrees F for candy, and 260 degrees F for granulated sugar, but may vary based on location, equipment used, and production process.*			
8.3 All containers are inspected for foreign debris prior to filling.			
Maple Confection Production Area			
8.4 Maple confection production area has a handwashing station that includes clean water, soap, disposable towels, and a trash can with a lid.			
8.5 If maple confection production area is different from sugarhouse, water must be tested (and pass) annually, unless on a municipal water supply. Water sample for testing must be pulled from point of use.			
8.6 Maple confection production containers are stored in a clean, dry area that is protected from pests and other contaminants.			
8.7 Retail confection container labels meet Vermont maple regulations and applicable FDA food labeling regulations.			

Maple Confection Production Area *(continued)*			
8.8 All maple confection production surfaces that come in contact with food products are cleanable.			
8.9 Pest control methods follow guidelines on product label.			
8.10 All lights in or near maple confection production area are protected from glass breakage.			
Maple Confection Production Equipment			
8.11 Sugar maker is utilizing quality control measures that eliminate introduced lead level defects.			
8.12 No galvanized equipment.			
8.13 No lead solder.			
8.14 No bronze pumps or fittings (bronze may contain up to 7% lead).			
8.15 No copper in contact with syrup (copper may contain up to 1% lead).			
8.16 Is syrup transfer method food safe?			
8.17 Policy on cleaning process and approved chemicals is included in policy manual. Policy requires that instructions for each cleaning chemical are followed.			
8.18 All utensils are food grade, in good condition, rated for the temperature, and stored in a sanitary manner.			
Allergen Cross Contact Prevention			
8.19 Production procedures do not contribute to allergen cross contact and contamination from any source. Allergens: milk, eggs, peanuts, tree nuts, soy, wheat, fish, crustacean/shellfish, sesame.			
8.20 If home kitchen is used for production or packing of maple confections **or** maple confections are being produced/packed where allergen containing value-added products are produced, sugar maker is using cleaning protocols, dedicated equipment, and scheduling practices to prevent allergen cross-contamination.			
8.21 Sugar maker has a policy on how outside food is separated from maple confection production areas.			
8.22 Verify defoamer used for maple confections does not contain allergens and is safe for human consumption.			

Maple Confection Storage and Traceability			
8.23 Sugar maker has a system to create lot numbers in order to code each pure maple confection batch so that they can be traced back in case of a recall.			
8.24 Labeling system needs to ensure sugar makers can trace where each pure maple confection batch was sold and that end user can trace confection back to the sugar maker (two-way tracking).			
8.25 All pure maple confection retail containers are clearly identified as containing only pure maple.			
8.26 Verify that stored pure maple confections continue to be protected against allergens and cross-contamanation.			

Additional notes and documentation:

- Maple Confection Production Policy for each pure maple confection produced
- Storage & Traceability System to create lot numbers

9. Defect Action Levels (21 CFR 117.110)

Criteria	Yes	No	N/A
9.1 Sugar maker is utilizing quality control measures that reduce natural or unavoidable defects to the lowest level feasible.			
9.2 Verify that sugar maker does not mix syrup containing adulterated levels of defect with other lots of syrup, regardless of defect action levels of final product.			
9.3 Out of grade and off-flavor products (syrup, sugar, candy, cream) are not offered for retail sale.			
9.4 Out of grade and off-flavor syrup is not in containers of less than five gallons.			
Certifier will sample retail syrup for taste. Did sample meet acceptable maple flavor standards? **Certifier retains sample.**			

Additional notes and documentation:

10. Other Scopes

Criteria	Yes	No	N/A
10.1 Child Labor Free			
10.2 Human Trafficking Free			

Additional notes and documentation:

List other scopes in use at sugar house: