6. GUIDELINES FOR ORGANIC MAPLE SYRUP PRODUCTION

MCS guidelines for maple syrup production are consistent with the USDA National Organic Program (NOP) standard. Weed and pest control, fertilization, cleaners, sanitizers and facility and forest management must all be in compliance. A comprehensive list of inputs must be included in your Organic System Plan (OSP). You must complete a field history for each stand that is tapped. A field history must document management activities that maintain and improve soil and water quality and biodiversity, including materials/products applied to trees or land for the past three years. Please note that if you plan to market organic syrup to Canada, Chilean (sodium) nitrate is not allowed as a fertility input.

Species diversity provides stability to forest communities. Producers are expected to manage the sugar bush using accepted forestry practices such as thinning that selects for healthy, vigorous trees and a stand composed of a mixture of young and mature tree species. Soil disturbance and erosion should be minimized throughout the year. Water quality must be maintained or improved and silting or sedimentation of streams must be prevented.

Producers are expected to minimize impact to the forest and trees. Nails and other hardware inserted into tree trunks should be counted as a tap and DBH of the tree must be sufficient for additional taps. Paint cannot be applied to tapped trees as it is a synthetic substance that is not permitted in organic production (NOP §205.601). Producers are expected to select healthy trees and to tap in a sustainable manner. Only sap collected from an inspected sugar bush may be used in production of organic maple syrup.

Many maple syrup producers do not own the sugar bush they tap. Each landowner may have their own standards concerning tapping and forest management. If you seek certification from MCS, you must be prepared to meet our standards regardless of what the landowner permits or what you have negotiated in your lease agreement. For instance, we do not allow tapping of trees that are less than 10 inches in diameter at breast height (DBH). Please review our standards carefully before applying for certification.

6.1 Inspection and Fees

Inspection of maple syrup operations will take place during spring production. We must receive new applications and updates by mid-February. Certified maple syrup producers will automatically receive their renewal paperwork in the mail in January. Application forms are available on our website in January OR you can call or email us and we will send the paperwork to you. Fees are based on estimated gross syrup (or sap) sales for the calendar year.

6.2 Lead

MCS recommends that producers periodically test their equipment and products for lead contamination. MCS reserves the right to test for lead if inspectors observe equipment that may pose a lead risk. Evaporator pans and galvanized buckets manufactured before 1995 may contain lead. Evaporator pans should have smooth, non-corroded surfaces. Pits, crevices and poor welds raise concerns about lead contamination.

6.3 Tapping

Recommended

1.) Health spouts (5/16” or smaller)
2.) One tap per tree per season

Permitted

1.) Standard spouts (7/16”)
2.) Lead free metal sap buckets and food grade plastic buckets
3.) Plastic tubing system

4.) Vacuum pumps with monitoring of pressure levels at taps; producers should maintain as low a pressure as possible
5.) Multiple taps per tree based on the DBH of the tree (see chart below)

Guidelines for Number of Taps Per Tree

Trunk Diameter at Breast Height (DBH) in inches	Trunk Circumference at Breast Height in inches	Number of Taps
10–18	31–56	**1**
18.1–25	57–79	**2**
>25	>79	**3**

(DBH is tree diameter at breast height which is 54 inches from tree base).

Not Permitted
1.) Galvanized buckets that pose a risk of lead contamination
2.) Synthetic fungicides, antibiotics, fumigants, sterilants, etc. in contact with trees
3.) Tapping trees in poor health or with weak crowns.
4.) Tapping trees less than 10" DBH
5.) Successive year tap holes closer than 4" side to side and 6" up/down
6.) Sap collection containers previously used for holding a prohibited substance
7.) Leaving spouts in trees more than 60 days after the end of sap flow
8.) Re-tapping a previously tapped tree during the same season ("double tapping") or reaming (freshening) the tap hole

6.4 Pump Stations and Sap Storage

Recommended
1.) Stainless steel tank
2.) Lids to prevent debris from falling into sap

Permitted
1.) Food-grade plastic holding tank

Not Permitted
1.) Equipment that routinely emits oil or other prohibited materials into environment
2.) Gas and diesel engines in the same enclosed space as an uncovered sap tank
3.) Galvanized metal storage tanks or containers

6.5. Filtration and Processing of Sap

Permitted
1.) Sand, cloth or felt filters*
2.) Reverse osmosis systems*

* *How filters and filtering equipment are maintained, cleaned and stored must be disclosed in the organic system plan. All materials and products used to clean, disinfect and store filters must be listed. Only those approved by MCS can be used.*

Not Permitted
1.) Use of materials that release toxic substances by oxidation, chemical reaction, or diffusion
2.) Cleaning agents and sanitizers that are persistent; fabric filters must be well rinsed before reusing

6.6 Evaporation of Sap

Permitted

1.) Certified organic defoaming agents are required.

2.) Air injectors in evaporator are permitted provided that a carbon filter is used and the air intake is outside the building and away from exhaust fumes. A protocol for changing the filter is required and records must be kept.

CAUTION! Dairy products and oils derived from soybeans and peanuts are known allergens. If an allergen-containing defoamer is used, we recommend providing information about it on your label.

Not Permitted

1.) Synthetic defoaming agents
2.) Meat products for defoaming
3.) Defoaming agents that are not certified organic
4.) Evaporator pans in poor condition. Evaporator pans manufactured prior to 1995 may require additional verification to rule out potential lead contamination.

IMPORTANT: Please contact MCS if changing your defoamer. MCS cannot certify syrup made with a synthetic defoamer.

6.7 Filtration of Syrup

Permitted

1.) Paper, felt, or synthetic fiber used to filter syrup. If filters are washed and reused, cleaning agents and rinsing protocols must be disclosed in the organic system plan.
2.) Food-grade diatomaceous earth or silica powder as a filtering aid. *Syrup filtered with diatomaceous earth or silica powder may be labeled "Organic". The "100% Organic" label cannot be used.*

Not Permitted

1.) Use of asbestos as a filtering material
2.) Products added to syrup to enhance taste, color, or texture
3.) Preservatives

CAUTION! Remember that syrup having a density reading below 66% Brix is a violation of Maine state law. Such syrup is more likely to ferment. Syrup with a density above 68% Brix may crystallize.

6.8 Storage and Canning

Recommended

1.) Stainless steel drums for bulk storage
2.) Glass containers for retail packaging

Permitted

1.) Metal containers with food-grade coatings and plastic tops
2.) Epoxy painted metal drums provided that the paint is not flaking, chipping or cracking. Producers must have a protocol to check for this prior to filling each barrel.
3.) Food grade plastic containers

Not Permitted

1.) Galvanized metal storage barrels
2.) Drums with chipped epoxy paint, rust or other imperfections that can impact syrup quality

6.9 Product Labeling

Barrels must be labeled with an "organic" designation, producer,and a lot number that can be traced back to a production date. Organic syrup in retail and non-retail containers must identify the syrup as organic, display a

traceable lot number, producer, and identify the certifier. For retail labels, the "Certified Organic By MOFGA" statement must appear directly beneath the contact information for the producer. Labels should be submitted to your specialist for approval before use

6.10 Cleaning & Storage of Equipment

Permitted

1.) Approved chlorine materials may be used up to the maximum labeled rate for disinfecting and sanitizing lines, pans, tanks and other sap or syrup contact surfaces. Rinsing is not required unless mandated by the label. Please be sure to check that your chlorine product has been approved by MCS and any requirements for such use.
2.) Biodegradable detergents, vinegar, sodium bicarbonate, food-grade hydrogen peroxide, sodium hydroxide and phosphoric acid. Producers must take steps to ensure that equipment is thoroughly rinsed to avoid contamination.
3.) Propylene glycol for storage of osmosis filters is allowed provided that adequate rinsing is done before sap is processed.

Not Permitted

1.) Storing filters or equipment near pesticides, fumigants, or other volatile substances. For example, mothballs, a common household pest repellent, must not be used inside production facilities for rodent control or for any other purposes. Items used in maple syrup production must be kept clean and free from contaminants.

6.11 Recordkeeping

Section NOP §205.103 of the National Organic Standards specifies that certified operations must maintain records concerning the production and handling of agricultural products that are intended to be sold, labeled or represented as organic. Records must be sufficient to demonstrate compliance with the NOP Rule.

All producers must keep the following records and have them available at the time of inspection:

1. Field activity log for all forest activities such as thinning, line and pump station maintenance, tapping and tap removal
2. A field history for each separate maple stand that is tapped
3. A facility diagram including all processing, sap and syrup storage, and materials storage areas
4. Receipts for purchased inputs (defoamers, filters, DE, cleaning materials)
5. Standard operating procedures for cleaning/sanitizing of equipment, pans etc., including full names of all materials used OR cleaning logs
6. Pest control records (if applicable)
7. Traceable lot numbers must be displayed on retail and wholesale containers, and on wholesale/3rd party distributor sales invoices
8. Production and sales records for the current and previous year. These records may be kept by the barrel or by pounds produced and sold. We expect that sales records will balance with production records, meaning that you can account for all syrup produced. Please track any amounts going to friends and family.
9. Current State of Maine maple license