

DATCP Docket No. 15-R-06  
Rules Clearinghouse No. 16-044

**ORDER  
OF THE WISCONSIN DEPARTMENT OF AGRICULTURE,  
TRADE AND CONSUMER PROTECTION  
ADOPTING RULES**

The Wisconsin department of agriculture, trade and consumer protection hereby adopts the following rule *to renumber* ATCP 70.05 (1) and ATCP 70.06 (1); *to amend* ATCP 70.06 (7) (d) 5.; *to repeal and recreate* ATCP 70.05 (1) (title) and ATCP ch. 87, subch. II; and *to create* ATCP 70.04 (18), ATCP 70.05 (1) (b), ATCP 70.06 (1) (b), ATCP 70.06 (7) (d) 6., ATCP 70.07 (1) (f), ATCP 70.10 (7); *relating to* maple syrup grading and processing, and affecting small business.

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**Analysis Prepared by the Department  
of Agriculture, Trade and Consumer Protection**

The Department of Agriculture, Trade and Consumer Protection (“department”) regulates maple syrup grading and processing through ch. ATCP 70 (Food Processing Plants) and ch. ATCP 87 (Honey and Maple Syrup). This rule revision incorporates recent changes to federal maple syrup grade standards. In addition, this rule revision exempts maple sap concentration facilities licensed as food processing plants from some food processing plant requirements that are still applicable to facilities at which post-concentration processing and packaging of maple syrup and maple sap products are done.

***Statutes Interpreted***

Statute Interpreted: ss. 93.09 (1) and 97.29, Stats.

***Statutory Authority***

Statutory Authority: ss. 93.07 (1), 93.09 (1), 97.09 (4), and 97.29 (5), Stats.

***Explanation of Statutory Authority***

The Department has broad general authority, under s. 93.07 (1), Stats., to adopt rules to implement programs under its jurisdiction. The Department has specific authority to adopt rules related to food grade standards in s. 93.09 (1), Stats. The Department also has general authority under s. 97.09 (4), Stats., to adopt rules specifying standards to protect the public from the sale of

adulterated or misbranded foods. The Department has specific authority to promulgate rules related to food processors in s. 97.29 (5), Stats.,

### ***Related Statutes and Rules***

Wisconsin's maple syrup producers are governed by ch. 97, Stats. (Food, Lodging, and Recreation). Maple syrup processing is regulated under s. 97.29, Stats., (Food processing plants). Subch. II (Maple Syrup) of Chapter 87 (Honey and Maple Syrup), Wis. Adm. Code, interprets ch. 97, Stats., as it relates to maple syrup.

### ***Plain Language Analysis***

Wisconsin ranks fourth in the nation in maple sap production. In 2014, Wisconsin maple syrup producers made 200,000 gallons, with an approximate value of \$10,000,000. Maple syrup grades provide a common language for describing maple syrup sold both at wholesale and retail. Maple syrup grades are currently established by the United States Department of Agriculture (USDA), several states including Wisconsin, and the Canadian provinces of Ontario and Quebec. The existing Wisconsin grade standards were adopted in 1980.

At the behest of maple syrup producers, the Department is proposing to modernize the Wisconsin maple syrup grade standards. The USDA's Agricultural Marketing Service (USDA-AMS) adopted new maple syrup grade standards in 2015. In conjunction with the International Maple Syrup Institute, USDA-AMS upgraded the Grade A color classes so that they are based on spectrophotometric analysis. Among other changes, the Grade B syrup designation was eliminated, and replaced with a Processing Grade designation. The new USDA-AMS standards have already been adopted by Vermont, New Hampshire, New York, and Maine.

This revised rule will replace the existing Wisconsin maple syrup standards with those recently developed by the USDA-AMS. The alternatives of keeping the existing standards or having the Department develop new and unique standards for Wisconsin were not supported by the Wisconsin maple syrup industry. As suggested by Wisconsin maple syrup industry representatives, the revised rule requires containers of maple syrup produced in a licensed food processing plant to be labeled with the grade designation that accurately describes the syrup inside the container. Containers of maple syrup produced in a facility not operating under a food processing plant license may be labeled the same way, with the term "ungraded," or with no reference to grading. If Grade A color class terms or flavor descriptors from the new standards, e.g., amber and rich, respectively, are included on the maple syrup label, then the label must indicate the grade of syrup inside the container, or that the syrup is "ungraded." Depending on where the syrup in a container of graded maple syrup was produced, the geographical designation "Wisconsin" or "U.S." may precede certain grade designations. The revised rule also describes requirements for labeling maple syrup as "Bottled in Wisconsin" or "Packaged in Wisconsin."

This rule was also revised to address requirements for certain maple syrup facilities. The revised rule differentiates the stringent general requirements for food processing plants and specific requirements for those food processing plants in which the only activity is the concentration of sap, i.e., "sugar houses." The revised rule contains specific requirements that address the unique

characteristics of many sugar houses, without compromising public health or product wholesomeness. For example, the new rule specifically allows a tank containing maple syrup before concentration to be uncovered, as commenters from the maple syrup industry stated that maple sap in an uncovered tank cools more rapidly, leading to better quality sap, and an uncovered tank allows visual observation necessary for process control. Similarly, the revised rule has new, flexible but adequate requirements for the proximity of equipment-cleaning sinks, handwash sinks, and a toilet room in a maple sap concentration facility. The revised rule specifies that liquid maple products and maple-derived water (terms defined in the revised rule) may be transferred from a licensed concentration facility to a further-processing facility operated under a food processing plant license, provided basic sanitation requirements are met. The revised rule also defines when and how water removed from reverse osmosis treatment of maple sap may be used for other purposes in a maple sap concentration facility operating under a food processing plant license. This latter topic was the focus of several comments received from maple syrup producers.

Comments from maple syrup producers also led to the inclusion of one new maple syrup-specific provision in the revised rule. The use of syrup de-foaming agents that contain major food allergens such as milk or soy is now prohibited. In the past, cream was commonly used as a de-foamer, but the possible presence of trace amounts of milk protein in maple syrup was seldom if ever indicated on the label. Industry attendees indicated that non-allergenic de-foaming agents are readily available and advocated for the prohibition against use of allergen-containing agents.

The revised rule also addresses the emerging concerns of nomenclature and processing requirements for a range of new products related to maple syrup. Several comments were received on acceptable terminology for these products, including what the revised rule terms “maple sap water,” which is non- or partially-concentrated maple sap. The definition for this product in the revised rule is based on the comments received. We termed another new product “maple-derived water” and defined it as the permeate resulting from reverse osmosis treatment of maple sap that is bottled for consumption. The revised rule contains a requirement that processes for manufacturing maple-derived water be approved by the Division.

### ***Summary of, and Comparison with Existing or Proposed Federal Statutes and Regulations***

Businesses that only harvest maple sap are not subject to federal food safety rules, but businesses that convert the sap to maple syrup or any other food are considered “facilities” subject to the Food Safety Modernization Act and the rules that implement it. There is a federal standard of identity for maple syrup under 21 CFR 168.140, and maple syrup producers involved in interstate commerce must follow Good Manufacturing Practices as outlined in 21 CFR 117. The revised rule essentially adopts the voluntary federal grade standards for maple syrup, with only minor modifications.

### ***Comparison with Rules in Adjacent States***

Retail sales of maple syrup in Illinois are under the jurisdiction of state or local health departments and regulations modeled on the FDA Food Code. Maple syrup sold at retail must originate in a facility subject to FDA or state inspection. Maple syrup is not one of the foods exempted from food processing rules via the Illinois Cottage Food Bill. Illinois does not license food processing plants. Production of maple syrup for wholesale is done in facilities subject to state rules that largely adopt FDA regulations.

Michigan licenses maple syrup producers who sell their product wholesale but does not require a retail food establishment license for sales of maple syrup made by a licensed producer. Maple syrup producers in Michigan can qualify for a cottage foods exemption from the food licensing requirement. Maple syrup producers who meet licensing exemptions (less than \$15,000 annually in sales) must follow the same labeling requirements for their maple syrup as those outlined for other cottage food products. Michigan requires the label to read "*Processed in a facility not inspected by the Michigan Department of Agriculture & Rural Development,*" and processing maple syrup in a home kitchen for sale is not allowed. Maple syrup producers who are eligible for the licensing exemptions still must meet all requirements of the Michigan Food Law, including sanitation, building construction and design, and employee hygiene.

Iowa considers maple syrup an agricultural commodity, and thus not subject to state inspection. Notwithstanding, Iowa food processing plant regulations largely cite FDA rules. Iowa also exempts cottage food operations from licensing requirements.

In Minnesota, a license is required to legally sell maple syrup to the public unless all sap is obtained from the maple syrup producer's land and no other "off farm" inputs are used in making the product (e.g., sap from neighbors' trees). However, all maple syrup operations selling to the public are subject to inspection by the Minnesota Department of Agriculture. Labeling requirements for maple syrup are the same as for other foods under Minnesota jurisdiction.

### ***Summary of Factual Data and Analytical Methodologies***

Rule revisions were developed in response to requests from the Wisconsin maple syrup industry and after a review of existing Wisconsin rules and internal policies for inspection of maple syrup processing operations and rules in other leading maple syrup states (Vermont, New York, New Hampshire, Maine, and Ohio. Department staff with experience in food processing plant inspection, or supervision thereof, provided formative input to the drafting of the revised rule.

### ***Analysis and Supporting Documents used to Determine Effect on Small Business***

Recent inspection results and photographs taken during inspections at a wide range of maple syrup operations were evaluated in considering the effect of the proposed rule on small business. Comments from attendees at hearings were also carefully considered.

### ***Effect on Small Business***

Department inspections of maple syrup concentration facilities, i.e., “sugar houses,” have proven challenging over the years. The major end product at most of these facilities (maple syrup) is not potentially hazardous, and the perishable raw material (maple sap) is exposed to the heat of boiling, which destroys microbes. Thus there is little concern about microbial food safety hazards in relation to the process. However, many facilities are in remote locations and there is a small, but real, risk of product contamination related to characteristics of the facility, e.g., pests, pieces of wood, or characteristics of equipment, e.g. chemical contaminants from non-food-grade equipment used in harvesting, transporting, or concentrating maple sap. This situation makes rigorous compliance with, and enforcement of, all requirements of ATCP 70 (Food Processing Plants) difficult for the maple syrup industry and the Department, respectively. Most facilities already meet the requirements of the revised rule, so the revised rule will have little effect on most of the industry. Small businesses holding a food processing plant license that do not currently meet the proposed facility requirements for maple syrup operations may face some facility-upgrade costs, particularly the installation of a three-compartment sink necessary for effective cleaning, rinsing, and sanitizing equipment, and any upgrades in areas of their facility in which finished syrup is stored and packaged. Businesses processing maple-derived water or maple sap water may face facility-upgrade costs.

This rule will not have a significant adverse economic effect on “small business” so it is not subject to the delayed “small business” effective date provided in s. 227.22(2) (e), Stats.

#### ***DATCP Contact***

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**SECTION 1.** ATCP 70.04 (18) is created to read:

ATCP 70.04 (18) MAPLE SAP CONCENTRATION FACILITIES. A facility licensed as a food processing plant and used solely for concentration of maple sap shall meet the requirements of s. ATCP 87.14.

**SECTION 2.** ATCP 70.05 (1) is renumbered ATCP 70.05 (1) (a).

**SECTION 3.** ATCP 70.05. (1) (title) is repealed and recreated to read:

ATCP 70.05. (1) GENERAL.

**SECTION 4.** ATCP 70.05 (1) (b) is created to read:

ATCP 70.05 (1) (b) Par. (a) does not apply to a maple sap concentration facility licensed as a food processing plant that is required to meet the provisions of s. ATCP 87.28.

**SECTION 5.** ATCP 70.06 (1) is renumbered ATCP 70.06 (1) (a).

**SECTION 6.** ATCP 70.06 (1) (b) is created to read:

ATCP 70.06 (1) (b) Par. (a) does not apply to a maple sap concentration facility licensed as a food processing plant that is required to meet the provisions of s. ATCP 87.26.

**SECTION 7.** ATCP 70.06 (7) (d) 5. is amended to read:

ATCP 70.06 (7) (d) 5. Food contact surfaces of equipment used solely to process foods or food ingredients with ~~low~~-water activity not greater than 0.85, such as chocolate, fats and oils, liquid nutritive sweeteners, peanut butter or similar foods which are not potentially hazardous.

**SECTION 8.** ATCP 70.06 (7) (d) 6. is created to read:

ATCP 70.06 (7) (d) 6. Equipment used solely for concentration of maple sap according to the provisions of s. ATCP 87.26.

**SECTION 9.** ATCP 70.07 (1) (f) is created to read:

ATCP 70.07 (1) (f) This subsection does not apply to food processing plants processing liquid maple products, as defined in s. ATCP 87.11 (7), or maple sap water, as defined in s. ATCP 87.11 (9), that are required to meet the provisions of s. ATCP 87.24.

**SECTION 10.** ATCP 70.10 (7) is created to read:

ATCP 70.10 (7) MAPLE SYRUP LABELING. Labeling of maple syrup shall also meet the requirements in s. ATCP 87.36.

**SECTION 11.** ATCP 87, Subchapter II is repealed and recreated to read:

## **SUBCHAPTER II.**

### **MAPLE SYRUP AND CERTAIN OTHER MAPLE PRODUCTS**

**ATCP 87.11 Definitions.** In this chapter:

- (1) “Clean” refers to maple syrup that is free from visible foreign material such as pieces of bark, soot, dust, or dirt.
- (2) “Damage” means any defects that materially affect the appearance, edibility, or quality of maple syrup. Damaged maple syrup may be badly scorched, fermented, or have one or more off flavors or odors.
- (3) “Degrees Brix” means the percentage by weight concentration of total soluble solids, mainly sugar, as measured using a refractometer calibrated at 68°F., and to which any applicable temperature correction has been made, or by any other method that gives equivalent results.
- (4) “Delicate taste” means a maple flavor of mild intensity.
- (5) “Department” means the Wisconsin department of agriculture, trade and consumer protection.
- (6) “Division” means the division of food and recreational safety in the department.
- (7) “Liquid maple products” means maple syrup, shelf-stable concentrated maple sap, non-shelf-stable concentrated maple sap, or maple sap water.
- (8) “Maple-derived water” means permeate that is removed by reverse osmosis, or water that is otherwise removed, from sap from trees of the genus *Acer*.

(9) “Maple sap water” means sap from the trees of the genus Acer that has not been concentrated to a solids content of more than 4 percent, or 4 degrees Brix, and is a potentially hazardous food as defined in s. ATCP 70.02 (22).

(10) “Maple syrup” means the liquid food derived by concentrating and heating sap from the trees of the genus Acer, as defined in 21 CFR 168.140, having a solids content of not less than 66 percent by weight, or 66 degrees Brix, and not containing added sweeteners.

(11) “Non-shelf-stable concentrated maple sap” means sap from the trees of the genus Acer that has been concentrated using heating or other methods, has a solids content of more than 4 percent and less than 66 percent by weight, or from 4 to 66 degrees Brix, and will support microbial growth when stored at temperatures not lower than 41°F. (5°C.) or higher than 135°F. (57°C).

(12) “Off flavor or odor” means any specific and identifiable or unidentifiable flavor or odor that is not normally found in grade A maple syrup. Off flavors or odors may be related to natural factors or manufacturing practices, and may develop or be acquired during handling or storage.

(13) “Packaging” means the transfer of liquid maple products or maple-derived water into a container that is sealed for sale, distribution, or delivery to a customer.

(14) “Rich taste” means a full-bodied maple flavor of medium intensity.

(15) “Robust taste” means a full-bodied maple flavor of higher than medium intensity.

(16) “Shelf-stable concentrated maple sap” means sap from the trees of the genus Acer that has been concentrated using heating or other methods, has a solids content of less than 66 percent by weight, or less than 66 degrees Brix, and will not support microbial growth when stored at temperatures not lower than 41°F. (5°C.) or higher than 135°F. (57°C).

(17) “Strong taste” means a full-bodied maple flavor of high intensity.

(18) “Taste” means the intensity of maple flavor.

(19) “Turbidity” means the suspension of fine mineral particles in the maple syrup such that the syrup clarity is reduced.

**ATCP 87.12 Licensing** (1) FOOD PROCESSING PLANT LICENSE. Unless exempted in s. ATCP 70.03 (7) (e), no person shall process and sell at wholesale liquid maple products, or maple-derived water, without a valid license issued by the department for a food processing plant under s. 97.29, Stats. The person holding a food processing plant license shall meet all applicable requirements of ch. ATCP 70 and this subchapter. A single food processing plant license may apply to a location with a street address and an additional location, without a street address, used solely for concentration of maple sap.

(2) RETAIL FOOD ESTABLISHMENT LICENSE. Unless exempted in s. ATCP 75.03 (9) (g), no person shall process and sell to consumers liquid maple products, or maple-derived water, without a valid license issued by the department for a retail food establishment under s. 97.30, Stats. The person holding a retail food establishment license shall meet all requirements of s. ATCP 75.03.

(3) FOOD WAREHOUSE LICENSE. Unless exempted in subs. ATCP 71.01 (4) and 71.02 (1), a person operating a licensed food processing plant that makes liquid maple products, or maple-derived water, and receives, holds for more than 24 hours, and then sells, without further processing, liquid maple products or maple-derived water obtained from another processor, shall hold a food warehouse license under s. 97.27, Stats.

**ATCP 87.14 Food processing plant facilities used solely for concentration of maple sap.** (1) CONSTRUCTION AND MAINTENANCE; GENERAL. Buildings and facilities at a licensed food processing plant used to process liquid maple products, or maple-derived water by methods other than concentration shall be constructed and maintained in accordance with s. ATCP 70.04. Buildings and facilities at a licensed food processing plant used solely for concentration of maple sap shall be of sound construction, and shall be constructed with tightly sealed walls and ceiling to exclude pests. The floor of the food processing facility shall be finished with a smooth, cleanable, and durable material, and shall be maintained in a clean condition. The premises immediately adjacent to the facility shall be well drained and kept free of accumulations of garbage, refuse, and other potential health nuisances.

(2) DOORS AND WINDOWS. Doors, windows, skylights, transoms, and other external openings shall be tight-fitting, free of breaks, and effectively screened or protected against the entry of pests. External doors shall be kept closed when not in use.

(3) LIGHTING. (a) Lighting in every area of the maple sap concentration facility, whether natural or artificial, shall be not less than 10 foot candles, or 108 lux.

(b) Artificial lights shall be equipped with protective shields and end caps or shatter resistant bulbs.

(4) VENTILATION. Ventilation in the maple sap concentration facility shall be sufficient to prevent condensation.

(5) TOILET AND HANDWASHING FACILITIES. All employees working in the maple sap concentration facility shall have convenient access to a sanitary toilet in a toilet room, complying with applicable local law, or a self-contained portable toilet maintained in compliance with s. NR 113. Each maple sap concentration area shall be equipped with a conveniently located handwashing sink and each sink shall be provided at all times with potable water under pressure, soap in a soap dispenser, a sanitary single-service means of drying the hands, and an easily cleanable covered trash receptacle. A single handwashing facility may also service areas in which pre-package processing, storage, and packaging of liquid maple products and maple-derived water are done, provided the handwashing sink is conveniently located for employee use.

(6) CLEANING FACILITIES. (a) If equipment, utensils, or containers are cleaned or sanitized manually, the maple sap concentration facility shall be equipped with a sink comprised of at least 3 compartments that is suitable for all manual cleaning and sanitizing operations. Sinks shall be conveniently located and adequate in number. Each sink shall be constructed of stainless steel or of one or more other materials approved by the department.



(b) Every sink compartment shall be large enough to accommodate the immersion of at least 50% of the largest item to be cleaned or sanitized in the sink. Every sink compartment shall be served by hot and cold running water under pressure, and shall be cleaned before each use.

(c) Drain boards shall be provided in connection with every sink. Drain boards shall be large enough to accommodate soiled equipment and utensils before washing, and cleaned and sanitized equipment and utensils after the drain boards are cleaned and sanitized. Drain boards shall be located and constructed so that they do not interfere with washing and sanitizing operations. This paragraph does not prohibit the use of easily movable dish tables as drain boards if the dish tables comply with this paragraph.

(d) Brushes and cleaning tools shall be constructed of materials that can be cleaned and sanitized, and shall be kept clean, and in good repair. Wiping cloths used to clean equipment and utensils shall be cleaned, sanitized, and dried after each day's use, and shall be stored in an approved sanitizing solution between uses during the processing day. Sanitizing solutions for wiping cloths shall be changed frequently enough to maintain an effective concentration of sanitizing chemical or at least daily, whichever is more frequent. Sanitizers shall be used in accordance with the manufacturer's instructions. Wiping cloths used to clean food contact surfaces of equipment and utensils shall not be used for any other purpose. Single service disposable towels may be used in place of re-usable cloths if they are discarded after use.

(e) If a mechanical system is used to clean or sanitize equipment, utensils, or containers, the mechanical system shall be designed, installed, and maintained so that it is fully effective for the purpose used. If a chemical sanitizer is used, the operator must be able to demonstrate that the chemical sanitizer is used properly.

(7) PLUMBING SYSTEM AND SEWAGE DISPOSAL. Sewage and waste materials from the maple sap concentration facility shall be removed in a sanitary manner, in compliance with applicable state and local regulations. All plumbing, plumbing fixtures, and equipment shall be designed, installed, and maintained to prevent backflow, backsiphonage, cross-connections, and contamination.

**Note:** Plumbing and plumbing fixtures are subject to the requirements of chs. SPS 381 to 387, enforced by the department of safety and professional services.

(8) GARBAGE AND REFUSE DISPOSAL. (a) Garbage and refuse shall not be allowed to accumulate in or around the maple sap concentration facility. Garbage and refuse shall be removed as often as necessary to maintain the premises in a clean and sanitary condition.

(b) A separate room or a designated area for the accumulation of garbage and refuse must be provided in maple sap concentration facilities that do not have a system for the daily removal or destruction of garbage and refuse. Garbage and refuse storage areas shall be constructed and maintained so they do not attract or harbor pests.

(c) Garbage and refuse shall be held in durable, leak-proof, easily cleanable, and pest-resistant containers that are kept covered with tight-fitting lids, and shall be cleaned when necessary to prevent insanitary conditions.

(d) Garbage and refuse may not be burned on the premises, except in compliance with state and local laws. Garbage, refuse, and building materials shall not be burned on the premises if burning may contaminate liquid maple products or maple-derived water produced at the facility.

(9) CONTROL OF PESTS. (a) Effective measures shall be taken to control insects, rodents and other pests in the facility. Pesticides and other hazardous substances may not be stored or used in a manner that may contaminate food, or which may constitute a hazard to employees or the public. Pesticides shall not be stored, handled, or used in a manner inconsistent with label directions, or in a negligent manner. Only pesticides approved for use in food processing operations may be stored or used in the facility.

(b) Animals, including domesticated animals, shall be kept out of maple sap concentration areas.

(10) STORAGE OF FUEL FOR MAPLE SAP EVAPORATOR. Evaporation equipment may be fueled by natural gas, oil, or wood. All fuel shall be stored outside the maple sap concentration facility.

**ATCP 87.16 Food processing plant facilities for pre-package processing of maple syrup and shelf-stable concentrated maple sap.** Facilities for pre-package processing of maple syrup and shelf-stable concentrated maple sap shall be constructed and maintained in accordance with s. ATCP 70.04.

**ATCP 87.18 Processing, storing, and packaging liquid maple products or maple-derived water** (1) TRANSFER TO ANOTHER BUILDING OR AREA. After maple sap concentration is done, liquid maple products and maple-derived water may be transferred from one building or area, to another building or area, operated under a food processing plant license, provided that the transfer vessels meet the requirements of s. ATCP 70.06 and the transfer method prevents contamination.

(2) UNPACKAGED PRODUCT STORAGE ROOMS. Any room, used for storage of unpackaged liquid maple products or maple-derived water, shall be constructed and maintained in accordance with s. ATCP 70.04.

(3) CONTAINER-FILLING AND PACKAGED-PRODUCT STORAGE ROOMS. Any room in which containers are filled with liquid maple products or maple-derived water, or in which these packaged products are stored, shall be constructed and maintained in accordance with s. ATCP 70.04.

(4) TEMPERATURE CONTROL. Non-shelf-stable concentrated maple sap, maple sap water, and maple-derived water are potentially hazardous foods as defined in s. ATCP 70.02 (22) and shall be handled, stored, and processed in compliance with s. ATCP 70.09 (1) to (3).

**ATCP 87.20 Containers for packaging liquid maple products or maple-derived water.** All containers for packaging liquid maple products or maple-derived water shall be stored in a manner to prevent contamination and shall comply with the requirements of s. ATCP 70.10.

**ATCP 87.22 Operations water at food processing facilities used solely for the concentration of maple sap.** (1) Operations water as defined in s. ATCP 70.02 (21) used at food processing plant facilities used solely for the concentration of maple sap shall be obtained from a source that complies with ch. NR 811 or 812.

(2) Operations water shall be available in consistently adequate quantity, and shall comply with the microbiological drinking water standards in ch. NR 809.

(3) If a maple sap concentration facility operator obtains operations water from a privately owned water system, the operator shall sample that water at least once annually. The operator shall have each sample tested by a laboratory certified under ATCP 77, for compliance with the microbiological drinking water standards in s. NR 809.30.

(4) A maple sap concentration facility operator shall keep on file, for at least one year, records of the results of all microbiological and other tests conducted on operations water sampled at the facility. Records shall be made available for division review or copying upon request.

(5) Operations water, transported from elsewhere to the maple sap concentration facility, shall be transported in compliance with the requirements of s. ATCP 70.07 (6).

(6) Condensate from the thermal concentration of maple sap may be collected for re-use, provided the collection equipment does not contaminate, or have the potential to contaminate, the water. The condensate shall be collected and stored in containers that meet the requirements of s. ATCP 70.10. Reclaimed condensate from the thermal concentration of maple sap may be used to clean non-food-contact surfaces. Reclaimed condensate from the thermal concentration of maple sap may be used to clean evaporators and other equipment food-contact surfaces if approved by the division in accordance with s. ATCP 70.07 (3).

**ATCP 87.24 Maple-derived water.** Maple-derived water obtained by the reverse osmosis treatment of maple sap may be used to clean evaporators or other equipment surfaces that contact maple sap before the maple sap is subjected to concentration by heating if all of the following apply:

(1) The maple-derived water does not have any objectionable odors, flavors, or slime. The maple sap concentration facility operator shall sample and organoleptically evaluate the maple-derived water daily.

(2) Chemical treatment of the maple-derived water complies with s. ATCP 70.07 (4).

(3) Any storage tank used to hold maple-derived water shall be constructed to meet the requirements of s. ATCP 70.06 (2) and shall be emptied, cleaned, and sanitized at least once every 24 hours.

(4) The maple-derived water shall not be stored more than 24 hours before use.

(5) Distribution lines and hose stations used to distribute the maple-derived water shall be clearly identified and not permanently connected to food product vessels. If a distribution line is temporarily connected to a food product vessel, there shall be an atmospheric break and automatic controls to prevent the maple-derived water from contacting food product.

**ATCP 87.26 -Equipment and utensils used in food processing plant facilities used solely for concentration of maple sap.** (1) CONSTRUCTION AND MAINTENANCE; GENERAL. (a)

Equipment and utensils used at a licensed food processing plant in processing maple syrup or shelf-stable concentrated maple sap using methods other than concentration, or in processing non-shelf-stable concentrated maple sap, maple sap, and maple-derived water, shall be constructed, used, and maintained in accordance with s. ATCP 70.06. Equipment and utensils used solely for concentration of maple sap including tanks, bulk containers, filters, hydrometers, thermometers, and skimmers, shall be of sanitary design and construction. Lead or lead-alloy soldering may not be used in the construction or repair of food-contact surfaces. Equipment and utensils used solely for concentration of maple sap shall be readily accessible for cleaning and inspection and shall be constructed so that items can be easily cleaned. Equipment and utensils used solely for concentration of maple sap shall be kept clean and in good repair.

(b) Food contact surfaces of equipment and utensils shall be constructed of stainless steel or of one or more other food-grade materials that are smooth, impervious, nontoxic, non-corrodible, nonabsorbent and durable under normal use conditions. Food contact surfaces shall be easily cleanable, and shall be free of breaks, open seams, cracks or similar defects. Food contact surfaces shall not impart any odor, color, taste or adulterating substance to food. Food contact surfaces shall be readily accessible for manual cleaning. A frame encasing an evaporator hood connected to a vent shall be made of a smooth, cleanable, food-grade material.

(c) Single-service articles shall be stored in the original containers in which they were received, or in other closed containers which will protect them from contamination before use. Single-service articles may not be re-used.

(d) Filtering materials such as socks and presses shall be in a clean condition before use. Filter papers may not be re-used.

(2) COVERING OF VESSELS CONTAINING MAPLE PRODUCTS. Vessels holding liquid maple products or maple-derived water shall be covered to prevent contamination. This provision does not apply to vessels only holding maple sap before concentration of the maple sap.

(3) ULTRAVIOLET LIGHTS. Ultraviolet light sources shall be shielded or shatterproof.

(4) FILTERING AND DEFOAMING AGENTS. Filtering agents such as diatomaceous earth shall be non-toxic. Foaming agents and other processing aids shall be food grade and shall not contain any ingredient originating from milk, eggs, wheat, peanuts, soybeans, tree nuts, fish, or crustacean shellfish.

(5) LOCATION AND INSTALLATION OF EQUIPMENT. Equipment that cannot be easily moved shall be installed in a manner that prevents liquid or debris from accumulating under or around the equipment. Equipment shall be installed so that there is adequate clearance on all sides for cleaning and maintenance.

(6) CLEANING AND SANITIZING EQUIPMENT AND UTENSILS; GENERAL. (a) All food contact surfaces of equipment and utensils shall be cleaned as often as necessary to remove visible debris and the equipment shall be sanitized before the next contact with maple sap or maple syrup.

When seasonal processing is completed, equipment and utensils shall be cleaned and stored in a sanitary manner.

(b) Reverse osmosis equipment shall be cleaned according to the manufacturer's directions.

(c) Sanitizers and methods used to sanitize equipment under this section shall comply with ss. ATCP 70.06 (7), (7m) through (10) and 70.11.

**ATCP 87.28 Personnel standards in food processing plant facilities used solely for concentration of maple sap.** (1) GENERAL. Personnel, in a licensed food processing plant facility used solely for concentration of maple sap to produce maple syrup and shelf-stable concentrated maple sap, shall meet the requirements of this section.

(2) CLEANLINESS. Persons engaged in concentrating maple sap shall maintain a high degree of personal cleanliness, and shall observe good hygienic practices during all working periods. Persons engaged in concentrating maple sap shall wash their hands before beginning work and upon returning to work after using toilet facilities, eating, smoking, or engaging in other activities that may contaminate the hands.

(3) EMPLOYEE HEALTH. No person who, by medical examination or supervisory observation, has, or is reasonably suspected of having, any of the following conditions may work in a food processing facility used solely for concentration of maple sap, in any capacity that may result in the contamination of food, or in the contamination of equipment or utensils used to process or handle food:

(a) A reportable communicable disease.

(b) Any symptom of an acute gastrointestinal illness.

(c) A discharging or open wound, sore or lesion on the hands, arms or other exposed portions of the body.

(4) CONSUMPTION OF FOOD OR BEVERAGES, AND USE OF TOBACCO. No person may consume food or beverages or use tobacco in any licensed food processing plant facility used solely for concentration of maple sap or in any area where food processing equipment or utensils are cleaned or stored, except in designated areas which are separated from the processing area. This subsection does not prohibit a sanitary drinking water fountain in a processing, storage, or packaging area.

**ATCP 87.30 Processing liquid maple products or maple-derived water by methods other than concentration.** (1) Equipment and utensils used at a licensed food processing plant in processing liquid maple products or maple-derived water using methods other than concentration shall be constructed, used, and maintained in accordance with s. ATCP 70.06.

(2) Equipment and utensils, described in sub. (1), shall be cleaned and sanitized in accordance with ss. ATCP 70.06 (7) through (10).

(3) Personnel, in licensed food processing plants processing the products listed in this section, shall meet the requirements of s. ATCP 70.05.

**ATCP 87.32 Production of maple-derived water.** (1) PROHIBITED FOR USE IN CERTAIN BEVERAGES. Maple-derived water may not be used as an ingredient in bottled drinking water or a soda water beverage, as defined in s. 97.34 (1), Stats.

(2) EXEMPTION FROM BOTTLED WATER REQUIREMENTS. The requirements for bottling establishments in subch. V of ATCP 70 are not applicable to bottled maple-derived water.

(3) DIVISION APPROVAL REQUIRED. The process and equipment used for production of maple-derived water shall meet the requirements of s. ATCP 70.09 (1) to (3), and be reviewed and approved by the division before use.

(4) ANNUAL TESTING. The operator of a food processing plant producing maple-derived water as ingredient water, as defined in s. ATCP 70.02 (18), shall collect a sample of maple-derived water at least annually and have the sample analyzed at a laboratory that is certified under ch. ATCP 77 to perform analysis of water for coliform bacteria levels, standard plate count, and either turbidity or organic content, as specified in s. ATCP 70.07 (3) (a) 5.

(5) STANDARDS. The maple-derived water shall contain less than 1 coliform bacterium per 100 mL, have a standard plate count of not more than 500 colony-forming units per 500 mL, and either turbidity of less than 5 units or organic content of less than 12 mg per liter, as measured by the chemical oxygen demand or permanganate-consumed tests, as specified in s. ATCP 70.07 (3) (a) 5.

**ATCP 87.34 Recall plan.** (1) PLAN REQUIRED. A person holding a food processing plant license under s. 97.29, Wis. Stats., and processing, storing, or packaging liquid maple products or maple-derived water, shall have a written plan for identifying and recalling products processed at that food processing facility, should a recall become necessary. The plan shall be updated as necessary, and shall be made available to the division for inspection and copying upon request.

(2) PLAN CONTENTS. A plan pursuant to sub. (1), shall meet the requirements of s. ATCP 70.117.

**ATCP 87.36 Description and use of grade designations, terminology and geographical designations to label containers of maple syrup.** (1) GRADING REQUIREMENT AND USE OF GRADING TERMINOLOGY AND GEOGRAPHICAL DESIGNATIONS. A person processing maple syrup, who is required under s. ATCP 87.12 (1) to hold a food processing plant license, shall label maple syrup containers for sale, with the grade designation in subsections (3) to (5), accurately describing the maple syrup in the containers. Other persons processing maple syrup may label maple syrup containers for sale with the grade designation in subsections (3) to (5) or the term “ungraded” that accurately describes the maple syrup in the containers. If the label on containers of maple syrup contains one or more of the Grade A color class terms or flavor descriptors in subsection (6), then the label must include the grade designation in subsections (3) to (5) or the term “ungraded” that accurately describes the maple syrup in the containers. The Wisconsin geographical designation may precede the grade designations in subsections (3) to (5) or the term “ungraded”, if all maple syrup in the container was produced in Wisconsin by concentrating maple sap. If some of the maple syrup in the container was produced by concentrating maple sap outside of Wisconsin, the U.S. geographical designation may precede

the grade designation in subsection (3), but shall not precede the grade designations in subsections (4) and (5). If some of the maple syrup in the container was produced by concentrating maple sap outside of Wisconsin but the container was filled and sealed in Wisconsin, the container may be labeled "Bottled in Wisconsin" or "Packaged in Wisconsin."

(2) STANDARDS. The following grade designations shall be used to label containers of maple syrup, when such labeling is required under sub. (1), provided the product in the container is accurately described by the definition of one of the stated grade designations in subs. (3) through (5) and the grade A color class in sub. (6), if applicable. The grade of a lot of maple syrup shall be determined by using the procedures in 7 CFR parts 52.1 to 52.83.

(3) GRADE A. No deviants for damage shall be labeled as Grade A. The grade designation Grade A may be applied to maple syrup that has all of the following characteristics:

- (a) Is not more than 68.9 percent solids content by weight, or 68.9 degrees Brix.
- (b) Has good uniform color.
- (c) Has good flavor and odor, and intensity of flavor, or maple taste, normally associated with the color class in sub. (6).
- (d) Is free from off flavors and odors considered as damage.
- (e) Is free from cloudiness, turbidity, sediment, and is clean.

(4) MAPLE SYRUP FOR PROCESSING (PROCESSING GRADE) Maple syrup bearing the grade designation maple syrup for processing, or processing grade, shall be packed in containers holding at least 5 gallons (18.925 liters) and shall not be packaged in containers smaller than 5 gallons (18.925 liters) for retail sale. Processing grade syrup is maple syrup that has all of the following characteristics:

- (a) Fails to meet the requirements for grade A maple syrup.
- (b) Possesses a fairly good characteristic maple taste.
- (c) Is fairly clean and fairly free of damage, turbidity or cloudiness.
- (d) May be in any color class and have any percent light transmittance.
- (e) Has not more than 68.9 percent solids content by weight, or not more than 68.9 degrees Brix.
- (f) May contain off flavors and odors.
- (g) May have a very strong taste.

(5) SUBSTANDARD. Maple syrup bearing the grade designation substandard is syrup that fails to meet the requirements in sub. (4) for processing grade maple syrup.

(6) COLOR CLASSES FOR GRADE A MAPLE SYRUP. The color class of grade A maple syrup is determined by the percent of transmittance of light at a wavelength of 560 nanometers through the syrup, as measured with a spectrophotometer using matched square optical cells having a 10 mm light path. The color value is expressed as percent of light transmission, as compared to analytical grade glycerol fixed at 100 percent. Percent transmittance is denoted by %T<sub>c</sub>. Any method that provides equivalent results may be used to determine grade A maple syrup color class. Grade A maple syrup color classes and corresponding flavor descriptors are shown in Table 1.

<u>Table 1. Grade A Color Class</u>	<u>Flavor Descriptor</u>	<u>Percent light transmittance:</u>
Golden	Delicate	At least 75.0
Amber	Rich	50.0 – 74.9
Dark	Robust	25.0 – 49.9
Very Dark	Strong	less than 25.0

**ATCP 87.38 Enforcement.** A person who violates this chapter may be prosecuted under ss. 93.21 and 97.72, Stats.

**SECTION 12. EFFECTIVE DATE.** This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register, as provided under s. 227.22(2)