



## **DEPARTMENT OF AGRICULTURE**

### **Agricultural Marketing Service**

**[Document Number: AMS-FV-14-0040; FV-15-326]**

### **United States Standards for Grades of Maple Sirup (Syrup)**

**AGENCY:** Agricultural Marketing Service, USDA

**ACTION:** Final Notice.

**SUMMARY:** This notice revises the United States Standards for Grades of Maple Sirup (Syrup). The U.S. Department of Agriculture (USDA), Agricultural Marketing Service (AMS) is revising the standards to replace the current grade classification requirements with new color and flavor descriptors, and revise Grade A requirements to be free from damage. The USDA Color Standards for Maple Sirup will become obsolete, and color will be determined using a spectrophotometer, or any method that provides equivalent results. AMS has also changed the spelling from “sirup” to “syrup.” These revisions will improve the marketing of maple syrup in the United States and internationally.

**DATES:** Effective Date: (INSERT DATE 30 DAYS FROM THE DATE PUBLISHED IN THE **FEDERAL REGISTER**).

**FOR FURTHER INFORMATION:** Contact Richard E. Peterson, Agricultural Marketing Specialist, Specialty Crops Inspection Division, Fruit and Vegetable Program, Agricultural Marketing Service, U.S. Department of Agriculture, 1400 Independence Avenue, SW, Room 1536, South Building; STOP 0240, Washington, DC 20250; telephone (202) 720-5021; fax (202) 690-1527; or, email [richard.peterson@ams.usda.gov](mailto:richard.peterson@ams.usda.gov). Copies of the revised U.S. Standards for

Grades of Maple Syrup are available on the Internet at <http://www.regulations.gov> or <http://www.ams.usda.gov/scihome>.

**SUPPLEMENTARY INFORMATION:** Section 203(c) of the Agricultural Marketing Act of 1946 (Act) (7 U.S.C. 1621-1627), as amended, directs and authorizes the Secretary of Agriculture “to develop and improve standards of quality, condition, quantity, grade and packaging, and recommend and demonstrate such standards in order to encourage uniformity and consistency in commercial practices.”

AMS is committed to carrying out this authority in a manner that facilitates the marketing of agricultural commodities and makes copies of official standards available upon request. The U.S. Standards for Grades of Fruits and Vegetables not connected with Federal Marketing Orders or U.S. Import Requirements no longer appear in the Code of Federal Regulations, but are maintained by the USDA, AMS, Fruit and Vegetable Program, and are available on the Internet at <http://www.ams.usda.gov/scihome>.

AMS has revised the voluntary U.S. Standards for Grades of Maple Sirup (Syrup) using the procedures that appear in part 36 of Title 7 of the Code of Federal Regulations (7 CFR part 36).

## **Background**

In September 2011, AMS received a petition from the International Maple Syrup Institute (IMSI) seeking to revise the U.S. Standards for Grades of Maple Sirup (Syrup). IMSI represents maple producers, state governments and associations, vendors, maple equipment manufacturers, organizations, and others in Canada and the United States. The petitioner stated that the patchwork of grading systems in the United States is confusing to consumers and fails to define

the grades of maple syrup in meaningful terms. The petitioner's overall goal was to foster development of harmonized grade standards for maple syrup in the United States and Canada. AMS proposed revisions to the U.S. Standards for Grades of Maple Sirup (Syrup) based on the IMSI petition. Specifically, AMS proposed replacing the current grade classification requirements with new color and flavor descriptors, and revising Grade A requirements to be free from damage. The USDA Color Standards for Maple Sirup will become obsolete, and the color classes will be determined using a spectrophotometer, or by any method that provides equivalent results. AMS also proposed changing the spelling from "sirup" to the more commonly used term "syrup."

The U.S. Standards for Grades of Maple Sirup (Syrup) are voluntary standards issued under the authority of the Act, which provides for the development of official U.S. grades to designate different levels of quality. These grade standards are available for use by producers, suppliers, buyers, and consumers; and, serve as the basis for the Federal inspection and grading of commodities as provided under the Act. Like all standards for fresh and processed fruits, vegetables, and specialty crops, these standards are designed to facilitate marketing by providing a convenient basis for buying and selling maple syrup, and for identifying product value.

This notice announces the revision to the second issuance of the U.S. Standards for Grades of Maple Sirup (Syrup), which became effective on January 14, 1980. The changes to the grade standards are as follows:

**Title.** Change the spelling of "sirup" to the more common spelling "syrup."

**Color.** Under current U.S. standards, producers include a grade statement and color descriptor on maple syrup labels. Darker syrups with rich bold flavor are currently labeled as

Grade B for Reprocessing and are not intended for retail sale. However, consumers are increasingly seeking the darkest color class of maple syrup for cooking and table use. The revision of the U.S. standards will categorize Grade B syrup that contains no damage or off flavors/odors as Grade A to allow the darker syrup to be packaged in retail size containers (less than 5 gallons). Specifically, the Grade A classification is revised to include four new color and flavor classes of maple syrup:

- U.S. Grade A Golden (delicate taste,  $\geq 75.0$  percent light transmittance (%Tc))
- U.S. Grade A Amber (rich taste, 50.0-74.9%Tc)
- U.S. Grade A Dark (robust taste, 25.0-49.9%Tc)
- U.S. Grade A Very Dark (strong taste,  $< 25.0$ %Tc)

The four color and flavor classes of maple syrup will be determined by using a spectrophotometer that provides a measure of percent of light transmission using matched square optical cells with a 10 millimeter (mm) light path at a wavelength of 560 nanometers (nm), with the color values expressed in percent of light transmission as compared to analytical reagent glycerol fixed at one hundred percent transmission, and symbolized by %Tc values; or by any method that provides equivalent results.

Further, the revisions remove references to the USDA permanent glass color standards for maple sirup, which will no longer be applicable.

**Composition.** Grade A syrup is the quality of maple syrup that:

- Is not more than 68.9 percent solids content by weight (Brix);
- Has good uniform color;

- Has good flavor and odor, and intensity of flavor (maple taste) normally associated with the color class;
- Is free from off flavors and odors considered as damage;
- Is free from cloudiness, turbidity, sediment, and is clean, and
- Contains no deviants.

Off flavors/odors are defined as any specific and identifiable or unidentifiable flavor or smell defect not normally found in good quality maple syrup. Off flavors may be related to natural factors such as woody, buddy, or fermented flavors or due to production, handling, or storage, e.g., burnt, chemical, or fermentation.

**Processing Grade.** The standards are being revised to remove “U.S. Grade B for Reprocessing” classification and includes a new “Processing Grade.” This new grade of syrup:

- Is intended for use at commercial markets;
- Is not intended to be sold at retail markets;
- Does not meet the “U.S. Grade A” quality requirements;
- May be used in the manufacturing of other products;
- Must be packed in containers of 5-gallons or 20-liters or larger;
- May not be packaged in consumer-size containers for retail sales;
- May be any color class and any light transmittance;
- Must not be more than 68.9 percent solids content by weight (Brix);
- May have a very strong taste; and
- May contain off flavors and odors.

The “Processing Grade” syrup also must be:

- Fairly free of damage, turbidity, or cloudiness, and
- Fairly clean.

USDA grades for maple syrup are not mandatory, but producers, processors, and handlers/packers that label maple syrup as a particular U.S. grade are responsible for ensuring the accuracy of the grade statement indicated, and that the maple syrup meets the current Federal standards for that grade. The existing regulations governing the inspection and grading of processed fruits, vegetables, and miscellaneous products (7 CFR §52.53) provide for the appropriate use of approved identification marks. While most products must be officially inspected prior to use of an official USDA grade mark, maple syrup and honey may bear official USDA grade marks without official inspection (see 7 CFR §52.53(h)).

AMS published a proposed notice in the **Federal Register** on May 7, 2014 (79 FR 26200) with a 60-day public comment period.

### **Comments**

AMS received comments on the proposed changes to the maple syrup standards from 10 respondents. Seven favored the revision as proposed. One respondent, a maple producer and packer, favored the revision, with the exception of the product labeling. Two commenters opposed the revision. After the comment period ended, AMS contacted the petitioner, IMSI, for technical assistance. Comments and responses are as follows:

Comment: The petitioner, IMSI, noted that they were very satisfied with the content of the proposed revision, and that the changes would harmonize United States and Canadian markets to the benefit of consumers and stakeholders. They also stated that their intent was to encourage

maple syrup producers and packers to include all label provisions specified in the IMSI proposal, including the product color and taste descriptors. However, they also recognized the voluntary nature of USDA regulations.

Comment: A national trade association, the North American Maple Syrup Council, several state associations, and stakeholders supported revising the classification of the current Grade B for Reprocessing (very dark and strongly flavored) syrup to Grade A (if free from damage and off-flavors/odors) to help meet the growing demand for this product. Commenters also noted that reclassifying the darkest color syrup to be sold at the retail level will also help small farming operations maintain profitability, while introducing new consumers to this product.

Comment: Several trade associations and stakeholders urged the USDA to quickly enact the revisions to the standards.

Comment: One stakeholder, a maple producer and packer, supported the change overall, but was concerned about the complexity and length of each grade name, and the limited space on each container's label.

Response: AMS is not adding labeling requirements for these voluntary U.S. grade standards. Product labeling falls under the regulations of the Food and Drug Administration (FDA) (21 CFR part 101), or state maple syrup regulations and requirements.

Comment: One stakeholder noted that the current standard is adequate, and that AMS resources should be spent on actual food safety issues.

Response: The issue of food safety is outside the scope of this revision to the U.S. grade standards. AMS is revising the standards based on a petition from IMSI. AMS reviewed the

request and found that it had merit. AMS believes that the revision should improve the marketing of maple syrup in the United States and internationally.

Comment: One commenter, a stakeholder from Maine asked several questions. AMS' responses are listed below:

Question 1: Where are Maine and the other states in the amendment process?

Response: You may contact the individual state departments of agriculture for the status of any amendments to state maple syrup grade regulations.

Question 2: Will AMS amend commercial grade syrup from the current five-gallon container to one gallon to allow small producers to sell commercial grade syrup to small bakeries, restaurants, or other companies in the food industry?

Response: There is no U.S. commercial grade for maple syrup. The revisions to the U.S. standards would categorize the former Grade B syrup (containing no damage or off flavors/odors) as Grade A to allow the darker syrup to be packaged in retail size containers (less than 5 gallons). The revisions also include a new "Processing Grade," a grade that does not meet the quality requirements for "U.S. Grade A," and may contain off flavors. Processing grade maple syrup may be used in the manufacturing of other products, and must be packed in containers of 5 gallons or 20 liters or larger.

Question 3: Will AMS include a variance to the color grade for when bottled syrup may darken over time so the vendor will not have to remove it from sale?

Response: USDA grades for maple syrup are not mandatory, but producers, processors, and handlers/packers that label maple syrup as a particular U.S. grade are responsible for ensuring the accuracy of the grade statement indicated, and that the maple syrup meets the current Federal

standards for that grade, which includes the correct color classification. Individual states also may impose this requirement. Contact your state representative for more information on the implementation of state labeling regulations for maple syrup.

Question 4: How will inspectors be trained and equipment calibrated, and what type of lighting will be used to grade the colors proposed in the revised standard?

Response: AMS will train staff to grade the product under the revised grade standards. AMS values and relies on trained, educated employees to accomplish its mission. Quality training and development programs are designed to provide the most effective training possible. AMS training may be provided through classroom training, computer/web based training, distance learning, on-the job training, or combination of methods. With regard to calibration of equipment, the equipment will be calibrated and cross checked as appropriate, with detailed instructions from manufacturers taken into account. Approved lighting sources are used to make critical color evaluations and comparisons. USDA lighting sources are designed to provide uniform color and spectral quality.

Question 5: Will this change result in more Canadian products on shelves and add financial benefits to the United States, or will it hurt jobs and sales?

Response: This revision is intended to improve marketing of maple syrup in the United States and internationally. According to the petitioner, each maple-producing state intends to revise its standards to reflect Federal grade standards. Overall, the revised grade standards should have a positive effect on the maple syrup industry.

Question 6: Will this change increase the amount of interstate maple syrup sales, and allow marketing of product from one region as if it were from another region?

Response: As stated previously, these revisions will improve the marketing of maple syrup in the United States and internationally, (see question 5). However, these standards do not excuse failure to comply with provisions of applicable Federal or state laws including provisions to prevent misbranding.

Question 7: Was there an economic study conducted that proves these changes are productive to U.S. consumers and producers?

Response: The revised grade standards are based on a petition from IMSI. IMSI represents maple industry stakeholders including maple producers, state governments and associations, vendors, maple equipment manufacturers, organizations, and others in Canada and the United States. The purpose of the standards is to foster and assist in the development of new or expanded markets, and improve the marketing of maple syrup in the United States and internationally. As such, the revised grade standards should have a positive effect on the maple syrup industry.

Question 8: Will this revision hurt or help existing branding such as Vermont Fancy, and can Maine producers use their own branding?

Response: The U.S. Standards for Grades of Maple Sirup (Syrup) are voluntary grade standards. States do have the option to allow branding if they wish. The 2014 Vermont Maple Product Regulations allow for using current grade terminology such as “Vermont Fancy” until January 1, 2017. Refer to the “Maine Maple Regulations” for that state’s maple branding requirements.

Question 9: U.S. maple production is too small to come up on the USDA radar.

Response: We disagree. An example of this is reflected in the 2013 National Agricultural Statistics Service (NASS) report. The report states: Nationally, maple syrup production in 2013 totaled 3.25 million gallons, up 70 percent from 2012. In 2012, prevailing high temperatures limited sap flow. The number of taps is estimated at 10.6 million, 8 percent above the 2012 total of 9.77 million. Yield per tap is estimated to be 0.308 gallons, up 58 percent from the previous season's revised yield. All states showed an increase in production from the previous year.

Question 10: Will revised USDA color standards (maple sirup color grading kits) be available?

Response: The revised standards specify that "color may be determined by spectrophotometer, or any method that provides equivalent results." The current USDA Color Standards for Maple Sirup permanent kit will no longer meet the revised requirements for color. There are no plans to revise the USDA maple sirup grading kit. Other entities are free to develop grading kits in the marketplace.

Question 11: The upper brix limit for Grade A, now set at 68.9 percent, should be set at 70 percent brix because small producers do not have the precision equipment to grade to 68.9 percent brix.

Response: The upper limit in Grade A for brix of not more than 68.9 percent can be determined using the same instrumentation that is currently being used to verify the minimum brix requirement of 66.0 percent. In response to AMS' inquiry on how IMSI arrived at 68.9 percent brix as the upper limit for Grade A, the petitioner responded that it was a consensus decision among maple syrup producers and packer stakeholders to require an upper limit, and that 68.9 percent brix is currently the upper limit for "Brix Maple Regulations in Vermont and New

Hampshire.” IMSI added that there is no advantage to going to a higher limit and noted that going higher would result in a product that is uncharacteristically thick, and would significantly increase production costs.

The official grade of a lot of maple syrup covered by these standards will be determined by the procedures set forth in the Regulations Governing Inspection and Certification of Processed Products, Thereof, and Certain Other Processed Food Products (**7 CFR §52.1 to 52.83**).

Accordingly, no changes to the standards were made as a result of comments received. However, AMS has made changes to the description of the processing grade for clarity.

The revisions to this maple syrup grade standard in this notice provide a common language for trade and better reflect the current marketing of maple syrup. The changes are effective 30 days after the date of publication in the **Federal Register**.

Authority: 7 U.S.C. 1621-1627

January 23, 2015.

Rex A. Barnes,  
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