



Producteurs et productrices  
acéricoles du Québec

# Quality Control of Our Bulk Maple Syrup

QUÉBEC IS THE ONLY JURISDICTION IN THE WORLD THAT HAS QUALITY CONTROL OF ITS BULK MAPLE SYRUP PERFORMED BY AN INDEPENDENT AGENCY. EVERY YEAR, INSPECTORS VERIFY THE QUALITY OF MORE THAN 300,000 BARRELS OF MAPLE SYRUP.



## A GUARANTEE OF QUALITY AND AUTHENTICITY

Québec Maple Syrup Producers (QMSP) takes responsibility for the quality testing and classification of bulk maple syrup, designating the task to **ACER Division Inspection Inc.** This independent, third-party organization does so in accordance with the *Règlement des producteurs acéricoles sur les normes de qualité et de classement* and the provisions of the Maple Syrup Marketing Agreement.

Using specialized instruments and scientifically sound analytical methods, **ACER Division Inspection's** quality control officers travel throughout the province to grade maple syrup at the QMSP warehouse in Laurierville, on-site at the facilities of authorized buyers, and at centralized labs.



## THE CLASSIFICATION OF MAPLE SYRUP

**Brix value is determined  
by refractometer**



The minimum content of soluble solids (sugar concentration) in our maple syrup must measure between 66 and 66.999 °Brix. If the density of a maple syrup is too low or too high, adjustments are made to net weight and penalties are applied.

WEIGHT ADJUSTMENT	°BRIX DENSITY	PENALTY
Initial weight revised to equate to 67 °Brix	67 and up	Over 69 \$.50/pound
	66 – 69	None
Initial weight revised upward	66 – 66.999	
	63.5 – 65.999	\$.10/pound
	60.5 – 63.499	\$.20/pound
Initial weight revised downward	65.999 or less	60.499 or less \$1.00/pound

For complete information about weight adjustments and penalties, consult the current Maple Syrup Marketing Agreement.

## ENSURING THE AUTHENTICITY OF OUR MAPLE SYRUP

Inspectors use the SpectrAcer™ to detect any signs of adulteration in a sample of maple syrup. **Further analyses may be conducted.** If a barrel is found to contain adulterated maple syrup, it is destroyed.



## INSPECTION FOR CLARITY AND MICROBIAL DEFECTS

**The most common substances that may be found suspended in maple syrup are:**

- Sugar crystals;
- Calcium malate;
- Carbon dioxide bubbles;
- Mould.

If such anomalies are found, the quality inspector reports them on the classification report. Further analyses may also be conducted.

## COLOUR CLASSIFICATION DETERMINED BY SPECTROPHOTOMETER

Maple syrup is colour-classified by measuring the amount of light that passes through it, expressed as a percentage (%) value.



**GOLDEN  
DELICATE  
TASTE**

**AMBER  
RICH  
TASTE**

**DARK  
ROBUST  
TASTE**

**VERY  
DARK  
STRONG  
TASTE**

### LIGHT TRANSMISSION

75% or greater

50% to 75%

25% to 50%

Less than 25%

## EVALUATION OF ORGANOLEPTIC QUALITY

This analysis of maple syrup is one of the most important in the classification process, that of its taste and smell – the product's flavour.

### Characteristic Flavour

Characteristic flavour is defined as having the typical taste of maple, free from unusual taste or odour.

### Off-Flavours

This refers to samples that present an unpleasant taste that masks the characteristic flavour of maple. The quality inspector will evaluate the intensity of any such off-flavour, using the following symbols on the classification report.

SYMBOL	INTENSITY
✓	Slight trace of undesirable taste and smell
VR	Unpleasant taste and smell (VR1, VR2, VR4, VR5)
CT	Strongly unpleasant taste and smell that substantially affect the product's commercial value (CT1, CT2, CT3, CT4, CT5, CT6)

## FLAVOUR DEFECT CODES

TYPE	CODE	DESCRIPTION
Natural Defect	1	Wood (VR11); Sap (VR12); Burnt, over-caramelized (VR13)
Microbial Defect	2	Off-flavour caused by microbial degradation of maple syrup (mould, fermentation)
Chemical Defect (automatically retained and may be destroyed)	3	Residue or suspicion of chemical contaminant (often related to cleaning/sanitizing products)
Technical Defect	4	Off-flavour related to a production or processing failure, described as, for example, acid, defoamer, smoke, metal, unidentified
Buddy Defect	5	Buddy taste
Ropy Syrup (automatically retained and may be destroyed)	6	Viscosity at 10 cm (4 in) or greater.

## WHEN SYRUP IS RETAINED

A barrel of maple syrup is retained for further investigation if the quality inspector finds its contents demonstrate major chemical, sensory, or microbial defects, or there are reasonable grounds to believe the maple syrup is unfit for human consumption, or it is otherwise non-compliant. If further investigation confirms the original analysis, the maple syrup is automatically discarded.

## LEAD

Quality inspectors conduct random screenings for lead during the grading process. If a barrel of maple syrup shows an abnormally high concentration of lead residue, it goes for lab analysis. Maple syrup with a lead concentration of higher than 0.25 ppm is destroyed.

**There may be additional analyses for iodide and sodium content or the presence of allergens, formaldehyde, or chlorates to ensure product in barrels complies with regulatory maximum limits.**

## WHEN AND HOW DO I REQUEST A CLASSIFICATION REVIEW?

**Maple producers have the right to request the review of a classification.**

### What is the deadline to request a review?

A maple producer has 15 working days to apply for a classification review. Such a review may only concern flavour defects or Brix levels lower than 66° or higher than 69°, as these are the only samples of graded maple syrup that are kept on hand.

### How do I get a review?

The producer must go to the CLASSIFICATION section (under My Account at [ppaq.ca](http://ppaq.ca)) or fill out and sign the *Demande de révision de classification* form. The fee is \$25 (plus taxes) per sample. This fee is waived if the review results in increased value for the maple syrup. The producer may not withdraw a review application once it has been submitted to ACER Division Inspection Inc. Reviews are not granted for maple syrup that has been retained or for which additional expertise is required.

### How does the review work?

The sample, identified by number only, is analyzed by two quality inspectors who have no information about its origin or initial classification. It is presented with other maple syrup samples (with and without defects) to ensure neutrality. The results are sent to QMSP, which corrects the data required for payment to the producer, if applicable. QMSP then conveys the results to the producer. Whether higher or lower than, or equal to the results of the first classification, they are final, without recourse to further appeal.

You will find a video presentation of the revision process at the [QMSP YouTube channel](#).

## CONTACT US

Québec Maple Syrup Producers

555 boul. Roland-Therrien – Office 525  
Longueuil (Québec) J4H 4G5

Toll-Free Number: 1 (855) 679-7021  
[info@ppaq.ca](mailto:info@ppaq.ca)

**ppaq.ca**

## CONTACT

ACER Division Inspection Inc.

142 rang Lainesse  
Saint-Norbert-d'Arthabaska (Québec) G0P 1B0

Phone: (819) 369-8106  
Fax: (819) 369-9589

For answers to your questions about the technical aspects of maple syrup production or other methods of production, contact your Ag Rep for the *Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec* or your regional training resource.