



**Consumer Research to Support
A Standardized Grading System
For *Pure* Maple Syrup**

– Final Report –

ACKNOWLEDGEMENTS

Clients: International Maple Syrup Institute

Fédération des producteurs
acéricoles du Québec

Citadelle, Coopérative de producteurs
de sirop d'érable

Table filière acéricole du Québec

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Informational Facts	
Per 299 participants & 6 focus groups	
Aspect	% Participants
Sex	
Female	60%
Male	40%
Age	
Under 35 years old	35%
35-54 years old	35%
55+ years old	30%
Province/State	
Quebec	35%
Ontario	31%
New Jersey	34%
Preferred tastes	
Grade-B syrups followed by Grades AA & A <i>table syrup in New Jersey</i> preference in unaffected by flavour intensity except when too strong	
Ability to differentiate products	
Participants have difficulty differentiating syrups based on Grade or flavour – there is no difficulty differentiating table syrup	
Packaging	
Participants prefer clear packaging (can see colour), cans are acceptable in Quebec but not elsewhere	
Focus groups (6)	
Products are grouped based on colour and, to a lesser extent, on viscosity There appears to be a one-to-one link between colour and taste intensity in the minds of participants Current classification systems appear to not be very well understood and tend not to be attended to when purchasing maple syrup	

BACKGROUND, OBJECTIVES, METHODOLOGY

Background

The International Maple Syrup Institute (IMSI) and its partner, the FPAQ, are investigating the development of a uniform grading system that will not only be useful to producers and packers of pure maple syrup but will also be understood by consumers, thereby stimulating sales. The research is aimed solely at syrup that is both free from defects and available in small containers (as opposed to syrup destined for packers).

The attributes being considered for the grading system include: colour, as it is currently, flavour (descriptors and intensity) and region of origin, depending on how consumers best differentiate different pure maple syrups.

In addition, the project was conceived to solicit the elicitation of appropriate descriptive terms that best describe consumers' perceptions and judgements of what appeals to them.

In developing a uniform grading system, it was deemed essential to obtain input from consumers in the three regions that will be most effected by such a grading system: i.e., Quebec, Ontario and the east coast of the U.S.A.

In order to maximize the resources available, the client considered it prudent to limit the scope of this initial study to the major North American markets (Quebec, Ontario and New England) as well as the extent of the research undertaken (selected qualitative and quantitative testing). The results of this first study will help to determine the direction of future studies as well as providing the hypotheses to be validated.

Objectives

The specific objectives set out for the study were as follows:

1. Determine if consumers are able to discriminate between different types of maple syrup based on taste alone
 - o If so, investigate the basis on which the discriminations are made
2. Verify if consumers are able to categorize different syrups into at least two categories based on visual clues alone
 - o Establish the basis for the categorization
3. Elicit spontaneous category names or attributes that differentiate maple syrups
4. Provide input to the development of a standardized grading system that will be simple and easily understood by both consumers and maple syrup producers and packers.

Methodology

In order to provide a complete picture of consumers' abilities both to differentiate different types of syrup based on taste alone and categorize them into different classes, a two-pronged approach was adopted. Consumers first participated in a blind taste test in order to assess their ability to distinguish one product from another based solely on their organoleptic characteristics. A sub-set of the participants were subsequently invited to participate in a focus group designed to explore the way in which syrups are grouped based primarily on visual cues.

The client provided a total of 15 different maple syrup products; the products varied on colour code, flavour and intensity. The procedure used by the client to both choose and classify the different syrups is appended.

Methodology – continued

Blind Taste Test

Respondents/Participants

A total of 299 participants were randomly recruited by telephone in Quebec (Saint-Hyacinthe, 106), Ontario (Mississauga, 94) and New Jersey (Old Bridge, 100). In order to qualify for the study, participants had to meet the following criteria:

- Consumed maple syrup at least 1 or 2 times in past month
- Responsible for, or share responsibility for, grocery purchases in household
- No one in household works in sector
- Between 18 and 64 years old
- Demonstrate fluency with words in describing different stimuli

Procedure

The following procedure was strictly adhered to in all testing sessions:

1. Prior to taking part in the tasting session, each participant filled out a standard questionnaire measuring frequency of maple syrup consumption and demographics; the questionnaire is appended
2. Each participant tasted a total of 9 pairs of products out of a total of 34 possible pairs. The first 8 pairs presented to participants evaluated the products of primary concern to the study, whereas the 9th pair evaluated one of the two blended products against table syrup. Table syrup was included in the mix due to its popularity among consumers in general

3. Products were paired in such a way that it was possible to determine consumers' abilities to differentiate product based on Category (AA, A, B, C) and taste (vanilla, maple, confectionery, empyreumatic, woody). The fact that not all flavours were represented in all classes imposed the incomplete design for pair selection presented below:

class	Flavour				
	vanilla	maple	confectionery	empyreumatic	woody
AA	X	X	X		X
A	X	X	X		X
B		X	X	X	
C				X	

Pairs: within flavour (|), e.g. AA-v vs A-v – 11 pairs
within class (—), e.g. AA-v vs AA-m – 15 pairs
across flavour (vanilla, maple, confectionery)
and class (AA, A) (X), e.g. AA-m vs A-c – 6
additional pairs
Total pairs = 32
+ blended 1 vs TS (table syrup) and blended 2
vs TS (2 additional pairs)

- Of the total of 800 primary pairings tested in a given city, 150 were set aside for the **flavour X class** pairs (25 evaluations per pair) – the inclusion of these pairs permits the analysis of the relative importance of flavour versus class in the ability to discriminate product
- The remaining 650 pair evaluations were equally divided among the other 26 pairs resulting in approximately 25 evaluations per pair
- The fact that intensity was confounded by the other variables under investigation meant that it was impossible to measure participants' abilities to differentiate product based on intensity; the impact

of intensity on preference was investigated however, by ignoring both flavour and class

- By collapsing the data across flavours, AA, A and B are each evaluated 150 times and C, 50 times; – numbers which are sufficient to look at the ability to discriminate between classes at the city level
 - By evaluating flavours within classes, vanilla, maple, confectionery and woody are evaluated 75 times each for AA and A classes; confectionery and empyreumatic are evaluated 50 times for the B class – these numbers tend to be sufficient to look at the ability to discriminate flavour within city
 - The number of times a given pair is evaluated (25) permits individual pairs (e.g., AA-v versus A-v) to be evaluated within a city with some reservations – collapsing across cities permits the analysis of these data
4. 12 different combinations of randomly chosen sets of 8 pairs from the primary products were created with the condition that all pairs being tested were equally represented. The order of presentation was randomized across participants with the restriction that all products occurred an equal number of times in the first three pairings. In order to ensure that there were no order effects, the second block of 12 combinations reversed the order of presentation of the pairs. The block of 24 combinations of 8 pairs was then replicated across participants in the three cities in order to ensure comparability across cities

- 5. After the 8 primary pairs had been evaluated, participants evaluated a 9th pair consisting of one of the blended products and table syrup; order of presentation was rotated across participants
- 6. Pairs were presented in opaque glass to prevent participants from forming evaluations based on visual cues
- 7. Water and unsalted crackers were provided in order to cleanse the palate

Each test session lasted approximately 45 minutes for which participants were compensated according to the local standards as a way of thanking them for their time and trouble.

Questionnaire Design

Participant questionnaires were developed by Cintech in close cooperation with the client. The questionnaires measured the following for each pair tested:

- Are the two products tasted the same product or different products – participants were led to believe that some of the pairs consisted of identical products
- If the same, they were asked to evaluate the extent to which they like the product on a 9-point liking scale.
- If different, they were asked to indicate which one they preferred as well as evaluate both on the 9-point liking scale
- For the first 3 pairs, participants spontaneously described their impressions of the product tasted (first, when they were considered to be different) in words or short phrases – for the next 5 pairs a list of other possible descriptors was provided

Copies of the questionnaires are appended.

Methodology – continued

Focus groups

Participants

A total of 6 focus groups were conducted in the three cities (Saint-Hyacinthe, 2; Mississauga, 2; Old Bridge, 2). All participants were selected from participants in the blind taste tests; in Saint-Hyacinthe and Old Bridge, selection was based on vocabulary used to describe the first three syrups whereas they were pre-selected in Mississauga. To the extent possible, care was taken to ensure that the groups had a good distribution of age and sex.

Discussion Guide

The discussion guides used in the groups were developed by Cintech in close cooperation with the client. The structure of the groups was as follows:

- Introduction of moderator and proper functioning of group; introduction of participants
- Impressions of blind taste test
- Sort task (classification)
 - the 16 different products used in the taste test were placed in front of the group – they were presented in small, transparent vials with different coding from that used in the taste test
 - participants were instructed to create between 2 and 7 groups of products that they felt, as a team, "went together"; no criteria for choice were proposed
 - once they had agreed on the groupings, they were asked to describe why they had placed them in the groups they did

- they were then asked to order the groups from most preferred to least preferred
- Word association
 - participants were then asked which single word best described each of the groups – this task was adopted for the Mississauga and New Bridge groups
 - following this, a sub-set of words used in the blind taste test was given to participants who were required to assign the words to each of the groupings – a limited number of words were allowed to be used for multiple groupings
 - the reasons for the choice of words was explored as required
 - the preference for precise or general terms was also explored
- Proposed classifications
 - reactions to a number of classification systems was also explored in Mississauga and New Bridge; systems considered included: by intensity, by quality, by country/province(state)/region/producer, current system (the systems explored in the groups were determined by the client)
 - suggestions for an *ideal* classification system were also elicited
- Colour coding system
 - participants were presented with mock-up's of a classification system that placed different coloured maple leaves on product – mock-up's were provided by the client
 - their interpretation of this system and their reactions to it were explored

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- Packaging systems
 - a total of 8 different containers for maple syrup were presented to participants – the containers used in this task were provided by the client
 - participant reactions to the different containers and whether or not they would purchase maple syrup in the container was discussed

A representative of the client attended all of the focus group sessions. After each session, a debriefing took place where adjustments to the discussion guide were made as a result of the observations made during the previous sessions. As such, the discussion guide was evolutionary in nature and topics were not necessarily dealt with in all groups or in the same manner.

The reader is reminded that observations derived from focus groups, by the nature of the way the data are collected and the characteristics of the individuals who choose to participate in them, cannot be projected to the general population under investigation. The observations made and hypotheses derived from qualitative data require further, quantitative research in order to establish their validity in the general population.

FINDINGS

– *Focus Groups* –

Note: The observations derived from focus groups, by the nature of the way the data are collected and the characteristics of the individuals who choose to participate in them, cannot be projected to the general population under investigation

The researcher, however, has made every effort to present the observations in as an objective and unbiased fashion as possible; wherever an interpretation is made of the data, it will be clearly identified as such

HIGHLIGHTS

Reactions to Taste Test

Participants are generally very surprised at the diversity of maple syrup tastes they experienced

- ❖ Some have trouble believing that they had tasted unadulterated maple syrup

Groupings of Maple Syrup

Without taking into consideration the extent to which they thought they would like the syrup, participants in Quebec and Ontario tend to create 6-7 distinct groupings; New Jersey participants place them in 3-4 groupings

- ❖ Groupings tend to be based on colour although participants also looked at the syrups' viscosity

When asked to organise the groupings by attractiveness, the number of groupings is generally reduced to around four

- ❖ The medium to dark products tend to be most preferred (Grades A & B)
- ❖ Lighter syrups (AA-Grade) tend to be the least preferred.

Participants maintain that the colour of maple syrup is a very good indicator of what it will taste like; there is a direct link between the two in the minds of participants

Words Describing Groupings

The darker coloured syrups (most preferred) such as Grades A & B tend to have the following positive words associated with them:

- ❖ ambré/amber
- ❖ bold
- ❖ creamy
- ❖ doré
- ❖ haute qualité/high quality
- ❖ naturel/natural
- ❖ rich
- ❖ robust
- ❖ substantial
- ❖ thick
- ❖ traditional
- ❖ velouté/smooth

Lighter coloured syrups (least preferred) such as Grade AA are associated with the following positive words:

- ❖ calorie wise
- ❖ délicat/delicate
- ❖ léger/light
- ❖ mellow
- ❖ mild
- ❖ smooth
- ❖ subtile/subtle

Proposed Classification Systems

Generally speaking, participants don't understand the current classification systems. When asked about what information they would like to see provided in a classification system, the following is considered desirable:

- ❖ Description of the colour of the syrup if in an opaque container – the actual colour should be described as closely as possible
- ❖ It's pure maple syrup
- ❖ It's natural/organic
- ❖ Sugar content – none is added
- ❖ Contains no additives
- ❖ Indication of the intensity of the taste
- ❖ Country of origin, region

Packaging

Participants invariably want to see the colour of the maple syrup they are eating. As such, they would like it to come in a clear container. If it comes in an opaque container, the colour of the product has to be clearly indicated. Cans for maple syrup are only accepted in Quebec

- ❖ The containers have to be aesthetic and easy to manipulate; a number of formats were proposed which meet these criteria (e.g., clear glass bottle, revised ketchup bottle, revised crock, revised maple leaf)

Detailed Results

PARTICIPANT PROFILES & USE OF MAPLE SYRUP

GROUP COMPOSITION

A total of 52 individuals participated in the six focus groups; the composition of the six groups was as follows:

GROUP 1, SAINT-HYACINTHE

- 8 females
- 1 male
- good distribution of ages

GROUP 2, SAINT-HYACINTHE

- 7 females
- 2 males
- good distribution of ages

GROUP 3, MISSISSAUGA

- 6 females
- 4 males
- good distribution of ages

GROUP 4, MISSISSAUGA

- 4 females
- 5 males
- good distribution of ages

GROUP 5, OLD BRIDGE

- 5 females
- 2 males
- good distribution of ages

GROUP 6, OLD BRIDGE

- 5 females
- 3 males
- good distribution of ages

How use maple syrup

- ❖ In Quebec, participants use maple syrup in a variety of ways, including: baking, cooking, on crêpes, French toast, waffles, in salad dressings, on ice cream, etc.
 - at the "cabane à sucre" or from a friend or relative are popular ways of acquiring maple syrup
- ❖ In Ontario, participants use of maple syrup is more restricted than in Quebec; it is used primarily on pancakes, French toast and waffles although some use it in baking and cooking
 - maple syrup tends to be purchased in grocery stores
- ❖ Use of maple syrup in New Jersey is almost always restricted to pancakes, French toast and waffles; very few use it in baking and cooking
 - maple syrup is invariably purchased in grocery stores

REACTION TO TASTE TEST

Maple syrup is not a single, uniform taste

- ❖ Participants in the groups expressed surprise when they were told that all the products were pure maple syrup; they were not told that one sample was table syrup
- ❖ Some participants were convinced that many of the products were either altered in some fashion or were, in fact, table syrup

It's a lot of maple syrup

- ❖ Virtually everyone mentioned that they felt tasting 9 pairs of maple syrup was a lot to taste
- ❖ They also expressed concerns that they were less able to make a "good" judgement as the test went on
 - inspection of the quantitative data, however, shows that the ratio of "identical/different" remains quite constant over time. In fact, 90% or greater of the participants were able to correctly indicate that the final products tested (table syrup vs. blended) were different

GROUPINGS OF MAPLE SYRUP

GROUP 1, SAINT-HYACINTHE



GROUP 4, MISSISSAUGA



GROUP 2, SAINT-HYACINTHE



GROUP 5, OLD BRIDGE



GROUP 3, MISSISSAUGA



GROUP 6, OLD BRIDGE



LEAST PREFERRED

MOST PREFERRED

LEAST PREFERRED

MOST PREFERRED

Basis for groupings tends to be colour, but...

In all groups, the strongest tendency observed was a grouping of products by colour:

- ❖ There were, however, a number of participants in each group who inverted the vials in order to determine the viscosity of the maple syrup; this was often used to nuance the groupings

Number of groupings depends on location

Quebec and Ontario participants tend to create more groupings when sorting the products than the New Jersey participants:

- ❖ Quebec – 6 & 7
- ❖ Ontario – 6 & 6
- ❖ New Jersey – 3 & 4

Ranking the groupings in terms of preference tends to reduce the number of meaningful groups

- ❖ Quebec – 6→4; 7→4
- ❖ Ontario – 6→5; 6 remains unchanged
- ❖ New Jersey – 3 remains unchanged; 4→3

Colour intensity equals taste intensity

When asked, participants invariably say that the colour of a product is a very good indicator of the taste intensity and degree of sweetness of the syrup itself

The MOST preferred products tend to be:

- ❖ Quebec – A-Grade products with some support for both B-Grade and some AA-Grade
- ❖ Ontario – B-Grade products with some support for C-Grade
- ❖ New Jersey – A-Grade products with some support for both B-Grade and C-Grade

The LEAST preferred products tend to be:

- ❖ Quebec – AA-Grade (Confectionary) and table syrup
- ❖ Ontario – AA-Grade (Confectionary) along with other AA-Grade and A-Grade products
- ❖ New Jersey – AA-Grade (Confectionary) along with other AA-Grade and some A-Grade products

WORDS PARTICIPANTS ASSOCIATE WITH GROUPINGS

	QC	ON	NJ
MOST PREFERRED	A + B/AA ambré clair doré doux haute qualité naturel sucré velouté	B + C bold full-bodied medium original rich right blend sweet thick traditional	A + B/C amber bold creamy fragrant full-bodied golden high quality natural old-fashioned robust smooth special substantial sweet thick traditional
LEAST PREFERRED	AA + AJ délicat faible léger liquide subtile sucré trop clair artificiel boisé brûlé corsé épais fort robuste vieux	AA + A bitter calorie wise cheap light low cal no-name tasteless watery weak weight-watchers	AA + A artificial bland delicate light low quality mellow mild ordinary smooth subtle thin watery weak

Positive words to describe medium to darker coloured maple syrups (most preferred) include:

- ❖ ambré/amber
- ❖ bold
- ❖ creamy
- ❖ doré
- ❖ haute qualité/high quality
- ❖ naturel/natural
- ❖ rich
- ❖ robust
- ❖ substantial
- ❖ thick
- ❖ traditional
- ❖ velouté/smooth

Positive words to describe lighter coloured maple syrups (least preferred) include:

- ❖ calorie wise
- ❖ délicat/delicate
- ❖ léger/light
- ❖ mellow
- ❖ mild
- ❖ smooth
- ❖ subtile/subtle

PROPOSED CLASSIFICATION SYSTEMS

Based on intensity

When asked if their groupings would change if they were based on intensity, virtually all groups replied that they would not change

- ❖ for participants, colour = intensity

Based on quality

There is a general tendency to equate medium to darker syrups (Grades A & B) with higher quality

- ❖ some participants stated that one would have to taste the syrup before being able to evaluate its quality

By country/province (state)/region/producer

While not everyone agreed that the country of origin needed to appear on the product, most felt that it would be a good idea

- ❖ very few felt that it would be useful to indicate in which province/state the syrup was produced; in New Jersey maple syrup either comes from Vermont or Canada
- ❖ some participants in Quebec and Ontario would like to have the region in which the syrup is produced indicated on the product; this would permit them to "buy locally"

AA / A / B / C

This classification system was not explicitly explored in the Quebec focus groups although a number of participants commented on it

- ❖ Virtually no one was sure of exactly what the letters were meant to signify
- ❖ Some were aware of the fact that owners of "cabanes à sucre" sometimes made reference to a colour based system to classify their maple syrup (they compared light transmittance); participants tended to be unsure of how producers use this information
- ❖ Some of the participants suggested that the system tended to be ignored by producers

Canada #1 Extra Light, Canada #1 Light, Canada #2 Amber, Canada #3 Dark

Participants, in general, could either see no need for the inclusion of the numbers or were confused by them; "does #1 mean the best selling"

- ❖ Most thought it would be appropriate to only use the reference to colour

Grade A Light Amber, Grade A Medium Amber, Grade A Dark Amber

Participants in New Jersey tended to reject this classification system

- ❖ "Grade A" is not required; as one participant put it "who would buy Grade B"
- ❖ "Amber" was seen as referring to only one intensity – darkest

Ideal Classification System

Participants would like to see the following information included in an ideal classification system:

- ❖ a description of the colour of the syrup – this was the item mentioned most often in the groups (if in an opaque container)
- ❖ is it natural or organic
- ❖ the sugar content – none is added
- ❖ the syrup contains no additives
- ❖ is it pure maple syrup
- ❖ an indication of the intensity of the taste
- ❖ to a lesser degree, country of origin, region, quality

Participants want to be reassured that the syrup they buy will be "real maple syrup" and that it will have a good maple taste. Maple syrup that has other tastes present should form a different category of product; the suspicion was that the other tastes would be added to the maple syrup (e.g., vanilla, caramel...)

COLOUR CODING OF MAPLE SYRUP

Mock-ups of possible colour coding system



Colour code, but...

- ❖ Colour coding only makes sense if the syrup is not in a clear container; only Quebec participants are receptive to maple syrup in cans
- ❖ It has to be obvious what the colours mean; most favoured including a short explanation along with the colour code
- ❖ Participants make a one-to-one interpretation of colours; i.e., the intensity of the colour indicates the intensity of the colour of the syrup inside the container
 - ideally, participants would like the colour code used to be the same as the colour of the product
- ❖ The use of a coloured maple leaf was considered appropriate for the context in which it's used
 - the maple leaf needs to be larger in order to ensure that consumers will notice it

PACKAGING

Reaction to proposed packages



The traditional can works in Quebec

- ❖ Participants in Quebec are very enthusiastic about the traditional can; they feel it does a good job of protecting the syrup
- ❖ it was, however, universally rejected in the other groups; you can't see the product

The clear glass bottle works everywhere

- ❖ Participants would, however, like to see a larger, more functional, handle and a variety of sizes

A number of packages can work if...

- ❖ The crock needs a functional spout and to be much larger; otherwise it would only be a gift item
- ❖ The maple leaf is more of a gift item than for everyday use although it was appreciated by most participants
- ❖ The ketchup bottle needs to be redesigned but the fact that it was made of clear plastic and is squeezable is appreciated

Others are rejected outright

- ❖ The traditional can is rejected outside of Quebec because the product is not visible and the syrup would have to be transferred to another container once opened
- ❖ The tall bottle reminded everyone of a shampoo bottle
- ❖ The squeezable bottle looks too much like a baby bottle
- ❖ The other can looks too much like a can of paint thinner

FINDINGS

– *Blind Taste Test* –

Note: The data are presented separately for each of the three entities measured – Quebec, Ontario, New Jersey. Wherever they are combined, it is done so with unit weighting since it is difficult to decide what weighting scheme is the most appropriate one to use. The data will be interpreted keeping this fact in mind

*** *Detailed tables and statistics are provided under separate cover***

HIGHLIGHTS

Similar or Different – an overall perspective

Approximately as many participants say that the pairs of different products tested are, in fact, the same product as say that they are different

- ❖ In reality, none of the pairs included the same product and everyone should have said that they were different

Similar or Different – from the perspective of colour/transmittance

Differences in product colour/transmittance (Grade AA to Grade C) tend to be undifferentiated by participants

- ❖ Approximately 6 out of 10 participants say that Grade AA is different from A and B; 40% say, therefore, that they are similar
- ❖ Grades B and C are seen as the most similar; 55% say that they are similar

Similar or Different – from the perspective of flavour

The different flavours tend to go undetected by participants, with the exception of "Woodsy"; the "woody" result is likely due to the strong reaction to A-Woodsy

- ❖ Confectionary and Emphyreumatic tend to be seen as the most similar

Product Preference

B-Grade products tend to be the most favourably evaluated syrups.

- ❖ A-Grade Woodsy is, by far, the least favourably evaluated syrup
- ❖ AA-Grade and A-Grade syrups tend to vie with each other for the middle ground
- ❖ AA-Vanilla, however, scores on a par with the B-Grade products

Words to describe products

If one has to decide which words do the best job of describing maple syrups that appeal to customers, the following words appear to do the job:

- ❖ sweet
- ❖ smooth/mellow
- ❖ thick
- ❖ maple
- ❖ natural
- ❖ traditional
- ❖ light
- ❖ clear

Artificial maple syrup in all of this

Table syrup is universally rejected in Quebec and the preferred syrup in New Jersey

- ❖ It is not, however, confused with real maple syrup

Detailed Results

PARTICIPANT PROFILE – SOCIODEMOGRAPHIC

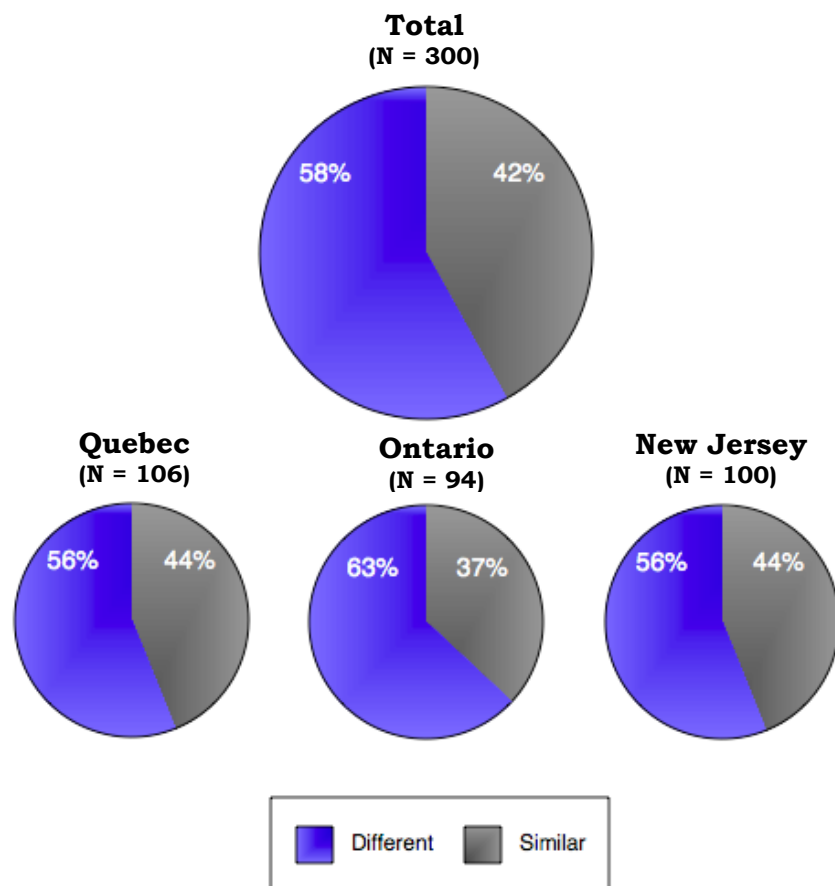
CHARACTERISTIC	QC	ON	NJ
	N=106	N=94	N=100
	%	%	%
SEX			
Female	60	61	71
Male	40	39	29
AGE			
18-24 years old	16	19	22
25-34 years old	19	19	19
35-44 years old	20	23	18
45-54 years old	15	21	22
55-64 years old	30	18	19
OCCUPATION			
Service / sales / office	27	30	19
Manual labourer	13	10	4
Professional	19	19	34
Student	12	18	17
Retired	20	15	4
Man/woman at home	5	15	16
Other	4	2	6
INCOME – total family before taxes			
Less than \$20,000	18	7	1
\$20,000 to less than \$40,000	35	14	6
\$40,000 to less than \$60,000	24	27	13
\$60,000 to less than \$80,000	14	23	24
\$80,000 and over	9	29	54
MAPLE SYRUP CONSUMPTION			
Less than once a month	5	1	0
1-2 times a month	34	34	10
Once a week	49	37	39
Many times a week	12	28	51

The typical participant can be described best as...

- ❖ A 35 to 64 year old women
 - females are over-represented in New Jersey
 - Quebec participants tend to be older
- ❖ Working in service, sales or an office; approximately 1 in 5 are professionals
 - professionals are over-represented in New Jersey
- ❖ Having a household income under \$40,000 in Quebec, \$60,000 and over in Ontario and \$80,000 and over in New Jersey
- ❖ Consuming maple syrup at least once a week
 - participants in Ontario and New Jersey consume maple syrup more often than those in Quebec

SIMILAR OR DIFFERENT?

PAIRS ARE SAME/DIFFERENT
– TABLE SYRUP EXCLUDED –



It's a coin toss

Respondents were told that some of the pairs were identical products and some were different; they were also told that some would have more similar pairs and some less. In fact, **none** of the pairs contained **identical** products. As such, the correct response for each pair was that they were different (0% similar). If the correct answer is not obvious to consumers, one would expect them to guess (50% similar).

- ❖ the most parsimonious interpretation of the overall behaviour of respondents, independently of the pair being evaluated, is that they tend to guess at the answer
 - Ontario respondents are slightly more likely to give the right answer than those either in Quebec or New Jersey
- ❖ Because approximately four out of ten respondents say that the pairs are the same product, this will be used as the benchmark against which differences based on grade and flavour will be evaluated
 - one must keep in mind, however, that the ideal score should be **zero**

SIMILAR OR DIFFERENT? – BY COLOUR/TRANSMITTANCE

PERCEIVE PAIRS AS DIFFERENT – TABLE SYRUP EXCLUDED –

COLOUR/TRANSMITTANCE	TOTAL	QC	ON	NJ
AA vs. A	59% (n=750)	58% (n=263)	61% (n=236)	59% (n=251)
AA vs. B	55% (n=150)	54% (n=52)	73% (n=48)	38% (n=50)
A vs. B	56% (n=150)	49% (n=53)	53% (n=47)	66% (n=50)
B vs. C	45% (n=150)	38% (n=53)	60% (n=47)	38% (n=50)
AA vs. AA	56% (n=900)	53% (n=316)	62% (n=282)	53% (n=302)
A vs. A	73% (n=896)	76% (n=320)	73% (n=278)	70% (n=298)
B vs. B	45% (n=448)	37% (n=158)	59% (n=140)	43% (n=150)
C vs. C	54% (n=148)	58% (n=52)	50% (n=48)	54% (n=48)

The highest level of perceived heterogeneity occurs within the A-Grade syrups

- ❖ Participants are most likely to say that the samples are different when two A-Grade syrups form the pair
 - this is most likely due to the A-Woodsy (Écorce A) sample which appears to be considered as an outlier by participants (see pages 25 & 26)
- ❖ Overall, approximately 6 participants in 10 say that Grade-AA syrup is different from Grade-A and Grade-B syrup and that Grade-A syrup is different from Grade-B syrup
 - Ontario participants are significantly more likely to say that Grade-AA differs from Grade-B, whereas New Jersey participants are significantly less likely
- ❖ The highest level of perceived similarity between different grades is observed between pairs where B-Grade syrup is compared to C-Grade syrup
 - Ontario participants are less likely to see them as being the same
- ❖ It would appear that B-Grade syrups are the most homogeneous
 - Ontario participants are significantly less likely to be of this opinion

SIMILAR OR DIFFERENT? – BY FLAVOUR

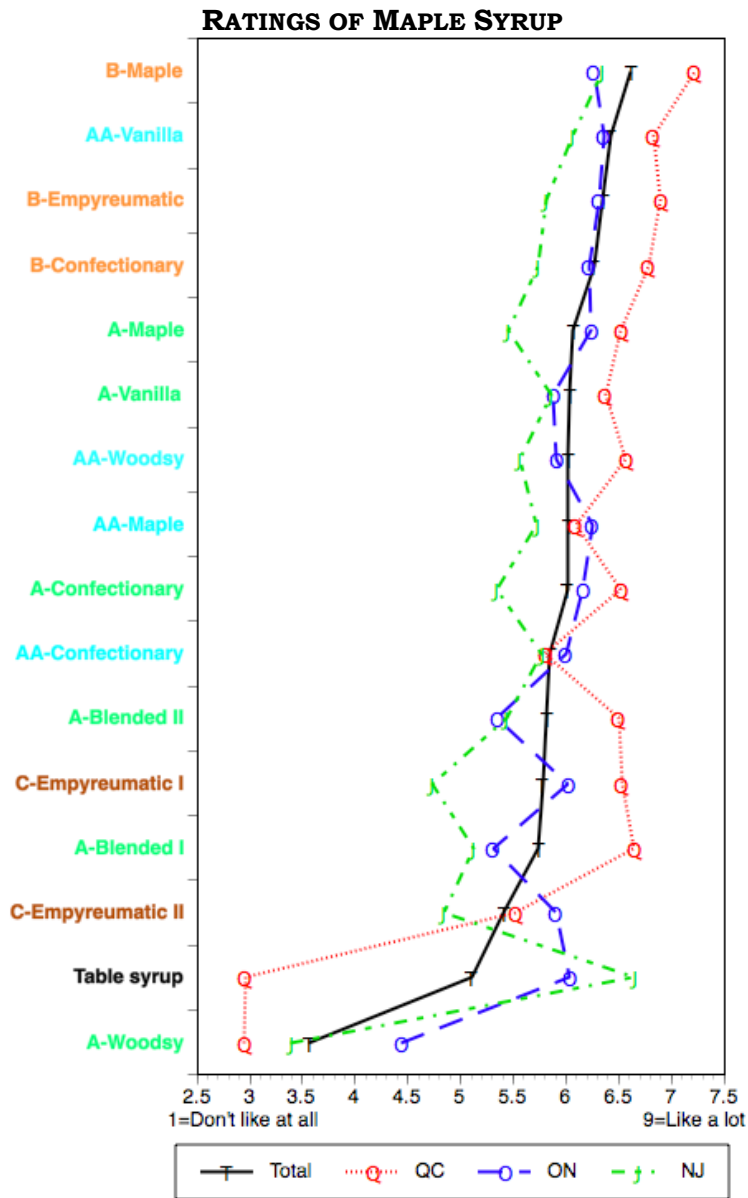
PERCEIVE PAIRS AS DIFFERENT – TABLE SYRUP EXCLUDED –

INTENSITY	TOTAL	QC	ON	NJ
Maple vs. Vanilla	55% (n=299)	45% (n=104)	65% (n=94)	54% (n=101)
Maple vs. Conf.	58% (n=373)	58% (n=132)	59% (n=118)	56% (n=123)
Maple vs. Woodsy	71% (n=150)	70% (n=53)	72% (n=47)	62% (n=50)
Maple vs. Empyr.	49% (n=76)	46% (n=26)	61% (n=23)	41% (n=27)
Vanilla vs. Conf.	56% (n=300)	56% (n=108)	54% (n=92)	58% (n=100)
Vanilla vs. Woodsy	73% (n=150)	77% (n=53)	72% (n=47)	68% (n=50)
Conf. vs. Empyr.	39% (n=74)	27% (n=26)	58% (n=24)	33% (n=24)
Conf. vs. Woodsy	68% (n=151)	62% (n=53)	64% (n=47)	67% (n=51)

Detecting the differences in flavours is most often guesswork

- ❖ With the exception of the comparisons to Woodsy, participants don't appear to be able to clearly distinguish one flavour from another
 - the "woody" differences are most likely caused by comparisons to the A-Woodsy product as will be seen in the next section
 - Ontario participants are significantly better than Quebec participants at distinguishing maple from vanilla

PRODUCT PREFERENCE



Does **B** mean **Better**?

- ❖ Three of the top four rated products are category B maple syrups
 - B-Maple (6.6 on 9-point liking scale)
 - B-Empyreumatic (6.4)
 - B-Confectionary (6.3)
- ❖ Only AA-Vanilla (6.4) manages to break into the top 4
- ❖ Other products scoring at least 6 on the 9-point liking scale include:
 - A-Maple (6.1)
 - A-Vanilla (6.0)
 - AA-Woodsy (6.0)
 - AA-Maple (6.0)
 - A-Confectionary (6.0)
- ❖ Both the blended A-Grade and C-Grade products score relatively lower than the other products (the reader is reminded that the two blended products were always compared to table syrup and were the last pairs to be tested):
 - A-Blended II (5.8)
 - C-Empyreumatic I (5.8)
 - A-Blended I (5.7)
 - C-Empyreumatic II (5.4)
- ❖ Logically, AA-Confectionary (5.8) also falls into the above group
- ❖ The A-Woodsy product scores very poorly (3.6)
- ❖ It would appear that taste, in and of itself, does not determine one's preferences for maple syrups

Regional variations

- ❖ In general, Quebec participants evaluate the maple syrup products more favourably than Ontario which, in turn, tends to evaluate them more favourably than New Jersey – these differences may be due either to differences in the use of rating scales or to real differences in the liking of the products; it is beyond the scope of this study to determine which hypothesis is most plausible
- ❖ The differences among the three groups appear to be the most extreme in the case of the two blended products and C-Empyreumatic I as well as table syrup
- ❖ Quebec is also much more critical of table syrup than Ontario and New Jersey, where it is the most popular product
- ❖ The relative order of the products, however, generally remains the same

Product groupings by ratings

- ❖ As a general observation, a difference of at least 0.5 scale points are required for the difference between the ratings for two products to be significant for the overall data
 - For Quebec the difference required is 1.1 scale points; none of the differences, other than for A-Woodsy, are significant in Ontario; in New Jersey, the difference required is 1.2 scale points

- ❖ Even though there is considerable overlap among the products tested, the proposed groupings still make sense
 - On an overall basis, there are no significant differences in the ratings of the top four products:
 - B-Maple
 - AA-Vanilla
 - B-Empyreumatic
 - B-Confectionary
- ❖ The next logical grouping consists of the following five products; again, there are no significant differences among them:
 - A-Maple
 - A-Vanilla
 - AA-Woodsy
 - AA-Maple
 - A-Confectionary
- The third grouping consists of five products; none of the differences are significant
 - AA-Confectionary
 - A-Mixed II
 - C-Empyreumatic I
 - A-Mixed I
 - C-Empyreumatic II
- ❖ A-Woodsy is considered to be different from all other products
 - Table syrup also falls into this group in Quebec; it is more mainstream in Ontario and New Jersey
- ❖ It is very likely that the difference in evaluation of the two woodsy products is due to the difference in the intensity of their tastes

PRODUCT DESCRIPTORS – SPONTANEOUS MENTIONS

Describing the 4 top rated maple syrups – main spontaneous mentions – (1st three pairs of products tested)

PRODUCT	QC N=VARIABLE	ON N=VARIABLE	NJ N=VARIABLE
B MAPLE	sucré (33%) agréable (23%) épais (19%) doux (18%) naturel (14%) érable fort (10%)	sweet (53%) thick (29%) smooth (16%) light (15%) natural (13%) strong maple (13%)	sweet (51%) thick (26%) mellow (12%) creamy (19%) strong maple (18%)
AA VANILLA	sucré (29%) bon goût (20%) doux (19%) agréable (18%) épais (13%) artificiel (13%) vanille (0%)	sweet (52%) thick (30%) smooth (19%) light (16%) vanilla (7%)	sweet (46%) thick (25%) mellow (12%) vanilla (4%)
B EMPYREUMATIC	sucré (32%) agréable (15%) épais (15%) érable fort (14%)	sweet (43%) thick (25%) smooth (15%) strong maple (9%)	sweet (37%) thick (25%) strong maple (14%) natural (12%)
B CONFECTIONARY	sucré (29%) agréable (23%) doux (23%) épais (16%) érable fort (13%)	sweet (48%) thick (27%) smooth (19%) strong (13%) strong maple (10%)	sweet (48%) thick (22%) strong maple (4%)

If it's sweet, thick and smooth/mellow, it's got to be good maple syrup

- ❖ The single most often cited descriptor for the top rated maple syrups is that they are **sweet**
 - the tendency to mention sweetness is much higher in Ontario and New Jersey than in Quebec
- ❖ It would also seem that product **thickness** is an important factor
- ❖ It helps, as well, to have a **smooth, mellow** taste
- ❖ As might be expected, approximately 1 in 10 consumers talks about the presence of a strong maple taste for the B-category products
- ❖ For the AA-Vanilla product, less than 1 participant in 10 mentions the flavour; no one mentions it in Quebec
- ❖ Over 1 consumer in 10 labels a number of the products as having a natural taste:
 - B-Maple in Quebec and Ontario
 - B-Empyreumatic in New Jersey
- ❖ The only negative comments of note about the products are about AA-Vanilla in Quebec; it is seen as artificial

PRODUCT DESCRIPTORS – SPONTANEOUS MENTIONS

Describing the 5 bottom rated maple syrups

– *main spontaneous mentions* –
(1st three pairs of products tested)

PRODUCT	QC N=VARIABLE	ON N=VARIABLE	NJ N=VARIABLE
A WOODSY	désagréable (27%) artificiel (25%) odeur désagréable (12%) faible qualité (12%) boisé (4%)	sweet (38%) thick (15%) artificial (15%) smells bad (15%) bitter (13%) smooth (13%) burnt (11%)	sweet (25%) thick (18%) artificial (14%) strong (14%) biter (12%) watery (12%) clear (12%) unpleasant (12%) woody (5%)
C EMPYREUMATIC II	sucré (27%) épais (16%) arrière-goût (14%) doux (14%) érable fort (11%)	sweet (47%) thick (28%) strong (16%) burnt (16%) bitter (13%)	sweet (30%) strong (22%) thick (16%) artificial (14%) strong maple (14%) burnt (5%)
A BLENDED I	agréable (29%) sucré (21%) naturel (17%) artificiel (17%) léger (13%) traditionnel (13%) épicé (13%) doux (13%) haute qualité (13%)	smooth (26%) thin (21%) thick (21%) pleasant (21%) sweet (16%) artificial (16%) light (16%) weak (16%)	sweet (43%) thick (21%) rich (14%)

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
C EMPYREUMATIC I	agréable (24%) sucré (26%) épais (19%) velouté (12%) brûlé (10%)	sweet (50%) thick (32%) strong (21%) light (13%) burnt (8%)	sweet (37%) thick (21%) clear (16%) strong (16%) light (13%) artificial (13%) bland (13%) burnt (3%)
A BLENDED II	artificiel (24%) doux (20%) léger (16%) à l'ancienne (16%) sucré (12%) traditionnel (12%) agréable (12%) raffiné (12%)	sweet (52%) thick (38%) strong maple (19%) light (14%) artificial (14%) aromatic (14%)	sweet (36%) thick (30%) light (18%) weak maple (15%) mellow (12%)

"Artificial" may be what groups these syrups together

- ❖ It may be the case that the relatively high percentage of participants who feel that these products have an **artificial** taste **brings down the scores of these syrups**
- ❖ **Woody and burnt** are also words that appear to have a negative association with consumers
- ❖ The very low evaluation of A-Woody incites consumers to use other descriptors such as: smells bad, bitter, watery, strong, low quality, etc.
- ❖ On the positive side, these products are also seen as having a sweet, **thick, smooth, mellow** taste

PRODUCT DESCRIPTORS – SPONTANEOUS MENTIONS

Describing AA-Grade maple syrups

(AA-Vanilla excluded)

– *main spontaneous mentions* –

(1st three pairs of products tested)

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
AA WOODSY	sucré (27%) doux (21%) bon goût (18%) érable faible (6%) boisé (1%)	sweet (38%) thick 24%) smooth (20%) light (14%) artificial (12%) weak maple (11%) woody (3%)	sweet (46%) thick (28%) weak maple (4%) strong maple (7%) woody (1%)
AA MAPLE	sucré (34%) agréable (20%) doux (16%) épais (13%) érable faible (13%) bon goût (12%)	sweet (40%) thick (28%) smooth (16%) light (15%) weak maple (2%)	sweet (43%) thick (24%) mellow (15%) weak maple (8%) strong maple (7%)
AA CONFECTIONARY	sucré (29%) agréable (14%) doux (24%) épais (16%) érable faible (9%)	sweet (52%) thick (26%) light (17%) smooth (15%) thin (13%) weak maple (5%)	sweet (49%) thick (24%) mellow (13%) weak maple (9%)

Note: The remaining AA-Grade products are presented here because they fall between the most preferred and least preferred and most easily addressed as a group

AA-Grade maple syrup can best be described as sweet, smooth/mellow and thick

- ❖ The single most often cited descriptor for AA-Grade maple syrups is that they are **sweet**
- ❖ Product **thickness** is also mentioned by a fair number of participants
- ❖ It helps, as well, to have a **smooth, mellow** taste
- ❖ If consumers talk about maple flavour for these products, they are more likely to describe them as weak rather than strong
- ❖ Very few participants in the three cities mention the woody taste of the AA-Woody product

PRODUCT DESCRIPTORS – SPONTANEOUS MENTIONS

Describing A-Grade maple syrups
(A-Woodsy & A-Mixed excluded)
 – **main spontaneous mentions** –
 (1st three pairs of products tested)

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
A MAPLE	sucré (31%) agréable (18%) épais (18%) bon goût (15%) doux (13%) érable faible (5%) érable fort (5%)	sweet (47%) thick (29%) strong (12%) light (12%) weak maple (3%) strong maple (10%)	sweet (44%) thick (17%) mellow (13%) natural (11%) weak maple (8%) strong maple (8%)
A VANILLA	sucré (28%) épais (25%) agréable (19%) doux (14%) artificiel (11%) bon goût (11%) vanille (0%) érable faible (10%) érable fort (6%)	sweet (47%) thick (34%) strong (12%) smooth (11%) thin (11%) vanilla (4%) weak maple (3%) strong maple (7%)	sweet (50%) thick (15%) mellow (11%) creamy (11%) clear (11%) vanilla (3%) weak maple (6%) strong maple (4%)
A CONFECTIONARY	sucré (26%) bon goût (22%) épais (17%) doux (17%) agréable (16%) érable faible (6%) érable fort (3%)	sweet (47%) thick (21%) smooth (17%) weak maple (7%) strong maple (8%)	sweet (38%) thick (16%) strong (11%) weak maple (3%) strong maple (6%)

Note: The remaining A-Grade products are presented here because they fall between the most preferred and least preferred and most easily addressed as a group

A-Grade maple syrup can best be described as sweet, thick and smooth/mellow

- ❖ The single most often cited descriptor for A-Grade maple syrups is that they are **sweet**
- ❖ Product **thickness** is mentioned by a fair proportion of the participants
- ❖ They also talk about them having a **smooth, mellow** taste
- ❖ If consumers talk about maple flavour for these products, they are as likely to describe them as weak as strong
- ❖ Very few participants in the three cities mention the vanilla taste of the A-Vanilla product

PRODUCT DESCRIPTORS – SPONTANEOUS & AIDED MENTIONS

Describing the 4 top rated maple syrups – total mentions –

PRODUCT	QC N=VARIABLE	ON N=VARIABLE	NJ N=VARIABLE
B MAPLE	sucré (59%) agréable (42%) épais (27%) doux (24%) naturel (18%) velouté (18%) érable fort (15%)	sweet (69%) thick (50%) smooth (27%) natural (18%) strong maple (16%)	sweet (60%) thick (34%) mellow (21%) strong maple (18%) caramel (12%)
AA VANILLA	sucré (40%) agréable (31%) doux (27%) bon goût (25%) épais (24%) artificiel (17%) vanille (0%)	sweet (67%) thick (43%) smooth (27%) light (23%) pleasant (20%) good taste (20%) vanilla (10%)	sweet (57%) thick (36%) light (17%) vanilla (9%)
B EMPYREUMATIC	sucré (50%) agréable (26%) épais (26%) érable fort (18%) brûlé (13%) cuit (5%)	sweet (60%) thick (38%) smooth (29%) pleasant (20%) strong maple (17%) burnt (11%) cooked (3%)	sweet (42%) thick (33%) natural (17%) strong maple (17%) burnt (6%) cooked (2%)
B CONFECTIONARY	sucré (43%) agréable (35%) doux (30%) épais (22%) érable fort (13%)	sweet (64%) thick (48%) smooth (33%) natural (19%) strong maple (16%)	sweet (58%) thick (29%) mellow (21%) natural (17%) strong maple (13%)

* Words in **blue** are new words that enter into participants' vocabulary after the presentation of the vocabulary list

Providing a vocabulary tends to increase the relative usage of some terms but generally changes little

- ❖ The most popular syrups are still sweet, thick and smooth/mellow
- ❖ A strong maple taste still describes this group of products
- ❖ Very few participants are aware of the vanilla taste of AA-Vanilla

A few new terms are introduced to participants' vocabulary

- ❖ "Velouté"
- ❖ "Brûlé"/burnt – providing the vocabulary may have helped participants to recognise this taste
- ❖ "Cuit"/cooked

Some terms become relatively less popular

- ❖ Creamy
- ❖ Bonne texture

PRODUCT DESCRIPTORS – SPONTANEOUS & AIDED MENTIONS

Describing the 5 bottom rated maple syrups – total mentions –

PRODUCT	QC N=VARIABLE	ON N=VARIABLE	NJ N=VARIABLE
A WOODSY	désagréable (45%) artificiel (37%) âcre (18%) faible qualité (18%) sucré (18%) boisé (6%)	sweet (51%) thick (51%) artificiel (24%) smells bad (20%) smooth (20%) woosy (15%)	unpleasant (42%) sweet (37%) thick (23%) artificiel (18%) woosy (11%)
C EMPYREUMATIC II	sucré (43%) épais (24%) agréable (22%) corsé (22%) érable fort (19%) brûlé (8%) cuit (5%)	sweet (56%) thick (44%) strong (31%) smooth (22%) strong maple (20%) burnt (22%) cooked (3%)	sweet (41%) thick (35%) unpleasant (24%) strong (22%) artificiel (14%) burnt (5%) cooked (3%)
A BLENDED I	agréable (42%) sucré (38%) léger (29%) traditionnel (29%) naturel (25%) velouté (21%) commun (21%) doux (21%) haute qualité (21%) artificiel (17%)	sweet (42%) smooth (32%) artificiel (26%) thin (26%) thick (21%) pleasant (21%)	sweet (43%) thick (29%) clear (21%) high quality (18%) artificiel (14%)

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
C EMPYREUMATIC I	agréable (36%) sucré (36%) épais (26%) velouté (21%) brûlé (14%) cuit (7%)	sweet (42%) thick (21%) strong (32%) good aftertaste (21%) burnt (11%) cooked (3%)	sweet (45%) thick (34%) clear (26%) artificiel (18%) burnt (3%) cooked (3%)
A BLENDED II	artificiel (32%) agréable (28%) doux (24%) haute qualité (24%) sucré (24%) aromatique (20%)	sweet (52%) thick (52%) pleasant (29%) strong maple (19%) woosy (19%) burnt (19%)	thick (42%) sweet (36%) mellow (24%) traditional (24%) light (21%)

Providing a vocabulary again tends to increase the relative usage of some terms but generally changes little

- ❖ Artificial is still a theme that runs through these products
- ❖ On the positive side, they are still seen as sweet, thick and smooth/mellow

A few new terms are introduced to participants' vocabulary

- ❖ "Âcre" to describe A-Woodsy
- ❖ "Corsé" for C-Empyreumatic
- ❖ "Velouté" and "commun" for A-Blended I and "aromatique" for A-Blended II

Some terms become relatively less popular

- ❖ "odeur désagréable"
- ❖ "Arrière-goût"
- ❖ "Épicé"
- ❖ Bitter
- ❖ Watery
- ❖ Clear
- ❖ Weak
- ❖ Rich
- ❖ Bland
- ❖ "À l'ancienne"

PRODUCT DESCRIPTORS – SPONTANEOUS & AIDED MENTIONS

Describing AA-Grade maple syrups (AA-Vanilla excluded) – total mentions –

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
AA WOODSY	sucré (35%) agréable (28%) bon goût (27%) doux (24%) épais (18%) érable faible (6%) érable fort (4%) boisé (1%)	sweet (56%) smooth (35%) thick (32%) light (20%) weak maple (12%) strong maple (6%) woody (8%)	sweet (49%) thick (33%) mellow (22%) unpleasant (18%) weak maple (8%) strong maple (10%) woody (6%)
AA MAPLE	sucré (46%) agréable (29%) doux (23%) épais (22%) érable faible (18%) érable fort (9%)	sweet (59%) thick (42%) smooth (31%) light (19%) thin (18%) weak maple (3%) strong maple (7%)	sweet (56%) thick (35%) mellow (24%) weak maple (15%) strong maple (9%)
AA CONFECTIONARY	sucré (41%) agréable (25%) doux (26%) épais (22%) érable faible (11%) érable fort (4%)	sweet (67%) thick (31%) smooth (30%) light (20%) thin (20%) weak maple (13%) strong maple (10%)	sweet (57%) thick (31%) mellow (19%) weak maple (13%) strong maple (5%)

Note: The remaining AA-Grade products are presented here because they fall between the most preferred and least preferred and are most easily addressed as a group

Providing again increases the relative usage of some terms but generally changes little

- ❖ The most popular syrups are still sweet, thick and smooth/mellow
- ❖ The maple taste is still more often described as weak rather than strong
- ❖ Few participants describe the taste of AA-Woodsy as being woodsy

Few new terms are introduced to participants' vocabulary for this group

- ❖ "Épais"
- ❖ Thin

Some terms become relatively less popular

- ❖ Artificial

PRODUCT DESCRIPTORS – SPONTANEOUS & AIDED MENTIONS

Describing A-Grade maple syrups (A-Woodsy & A-Blended excluded) – total mentions –

PRODUCT	QC N= VARIABLE	ON N= VARIABLE	NJ N= VARIABLE
A MAPLE	sucré (44%) agréable (30%) épais (28%) doux (18%) érable faible (7%) érable fort (9%)	sweet (67%) thick (43%) smooth (24%) good aftertaste (18%) weak maple (4%) strong maple (14%)	sweet (61%) thick (31%) mellow (20%) weak maple (13%) strong maple (9%)
A VANILLA	sucré (43%) agréable (30%) épais (37%) doux (21%) artificiel (18%) vanille (1%) érable faible (10%) érable fort (10%)	sweet (61%) thick (40%) smooth (25%) pleasant (18%) vanilla (5%) weak maple (7%) strong maple (11%)	sweet (59%) thick (31%) mellow (20%) vanilla (4%) weak maple (9%) strong maple (5%)
A CONFECTIONARY	sucré (40%) épais (29%) agréable (26%) bon goût (26%) doux (20%) érable faible (9%) érable fort (6%)	sweet (60%) thick (31%) smooth (29%) weak maple (11%) strong maple (12%)	sweet (51%) thick (27%) light (18%) weak maple (9%) strong maple (8%)

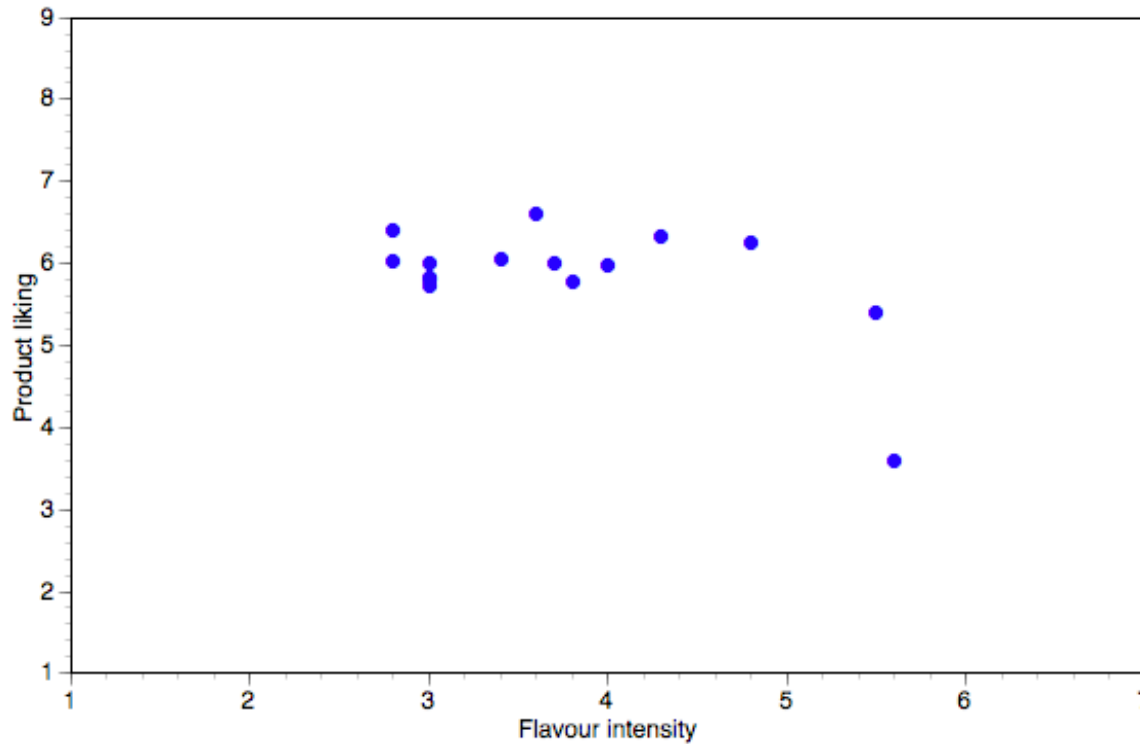
Note: The remaining A-Grade products are presented here because they fall between the most preferred and least preferred and are most easily addressed as a group

A-Grade maple syrup can best be described as sweet, thick and smooth/mellow

- ❖ The single most often cited descriptor for A-Grade maple syrups is that they are sweet
- ❖ Product thickness is mentioned by a fair proportion of the participants
- ❖ It helps, as well, to have a smooth, mellow taste
- ❖ If consumers talk about maple flavour for these products, they are as likely to describe it as weak as strong
- ❖ Very few participants in the three cities mention the vanilla taste of the A-Vanilla product

LIKING AND FLAVOUR INTENSITY OF THE 15 MAPLE SYRUP PRODUCTS TESTED

Scatterplot of Participant Liking by Taste Intensity (as indicated by expert panel)



There appears to be no relationship between experts' ratings of the intensity of a flavour and participants' liking until intensity surpasses 5.0 on a 7-point intensity scale

- ❖ Liking for a product drops rapidly once intensity reaches the 5.5 range
- ❖ It is impossible to determine if this is due to intensity or the flavour of the products tested or some other factor; a more controlled experimental design would be required to answer this question

TABLE SYRUP

Is not confused with maple syrup

- ❖ Very few participants said that table syrup and the A-Blended maple syrups were the same product with the possible exception of the comparison with A-Blended II in New Jersey
 - Quebec – A-Blended I, 4%; A-Blended II, 4%
 - Ontario – A-Blended I, 3%; A-Blended II, 12%
 - New Jersey – A-Blended I, 10%; A-Blended II, 22%

Is rejected in Quebec (strongly) and preferred in New Jersey

Is described as (total mentions):

- ❖ Quebec – thick (61%), unpleasant (49%), artificial (41%), sweet (29%), caramel (24%),
- ❖ Ontario – thick (82%), sweet (74%), artificial (32%), strong maple (26%), natural (26%), strong (21%)
- ❖ New Jersey – thick (59%), traditional (35%), strong maple (26%), sweet (26%), old-fashioned (22%), high quality (22%), rich (22%)

**CONCLUSIONS
&
POSSIBLE NEXT STEPS**

Conclusions

Are consumers able to discriminate between different types of maple syrup based on taste alone?

- ❖ The short answer would appear to be no
 - although none of the pairs contained identical products, roughly half of the participants said that they were the same product; this is the equivalent to guessing
 - based on taste alone, participants' abilities to recognise the differences between products is unaffected by either the product's colour class or its flavour
 - they can, however, differentiate maple syrup from table syrup
 - if one looks at the liking data, it would be safe to assume that there are more similarities between the products than differences – other than for products with lower liking scores such as A-Woodsy and C-Empyreumatic II, there are no significant differences among any 10 adjacent products
 - with the exception of products with a taste intensity of 5.5 or higher (A-Woodsy, C-Empyreumatic II, there is no relationship between the intensity of the taste of a product and the extent to which participants like it


Are consumers able to categorize different syrups into at least two categories based on visual clues alone

- ❖ The qualitative observations made in the focus groups suggests that consumers use approximately four categories when grouping different products based on their visual cues and the perceived extent to which they would appreciate the syrup
 - Quebec and Ontario participants tend to use more categories than those in New Jersey when the decision is based only on appearance, ignoring appreciation
 - medium to medium dark syrups (A & B Grades) tend to be more appreciated by participants based on colour alone
 - participants in the groups tend to assume that there is a one-to-one relationship between the colour of a syrup and the intensity of its taste – darker colours have more full-bodied, intense tastes
 - to a lesser extent, participants use the viscosity of a syrup to assist them in grouping the products
 - consumers generally want to see the product they are buying; Quebec tends to be an exception to this in that they look favourably on syrup in cans
- ❖ The quantitative data also lends support, although not statistical in nature, to grouping syrups into 3-4 categories
 - the most appreciated syrups tend to be B-Grade syrups
 - the next most appreciated syrups tend to be A and AA-Grade syrups
 - C-Grade along with some A-Grade and AA-Grade tend to form a third category
 - a fourth category is comprised of syrups with an intense taste that is not appreciated by everyone; A-Woodsy defines this group in which C-Empyreumatic II also falls

Spontaneous category names or attributes that differentiate maple syrups


- ❖ The two most frequently used terms to describe maple syrup regardless of the product are sweet and thick
- ❖ Even though there is not a clear-cut distinction from one grouping of products to another, participants tend to use consistent terminology as products progress from darker to lighter; some of the positive terms associated the products include:

Darker

- 
- thick, bold, rich, full-bodied, strong maple flavour, substantial, robust
 - creamy, smooth, mellow
 - amber, golden, clear
 - delicate, mild, subtle, light, weak maple flavour (can substitute words like delicate, etc.)

Lighter

Darker - In French

- 
- épais, riche, érable fort, robuste
 - velouté, doux, doré
 - ambré,
 - délicat, subtile, léger, érable faible

Lighter

The ideal classification system, according to participants, should inform customers about:

- ❖ It's pure maple syrup – nothing added, nothing taken away, no additives
- ❖ The colour category of the syrup, especially if not in transparent containers
- ❖ As appropriate, the intensity of the maple flavour
- ❖ Flavours other than maple are seen as being a category apart – there is the suspicion that the flavour has been added to the maple syrup, not inherent in it
- ❖ The country of origin as well as the province/state – some would like to have the producer listed
- ❖ Descriptors of the product did not form part of the ideal classification system but would probably be accepted as marketing terms
- ❖ Participants were not very receptive to much of the terminology used in current systems; such as: AA, etc; #1, #2, etc.; Grade A; "amber" for all colours

Possible Next Steps

Based on the information obtained in this study and the long term objectives of the IMSI and its partners, there are a number of next steps that they may wish to undertake

- ❖ Investigate what approaches other industries, faced with a situation similar to that of the maple syrup industry, have adopted to classify their products in a way that is both easily understood by their customers as well as serving to promote it effectively
- ❖ Develop X number of categories (likely to be 3-5) for maple syrup based on the most probable dimension used by consumers to classify maple syrup, taking into account producers and transformers ability to meaningfully vary syrup on that dimension - colour cannot be ignored in the development of the categories
- ❖ Develop a sufficient number of concepts (2-5) reflecting the new classification system; validate on consumers as well as producers and transformers
 - the inclusion, or not, of supporting marketing terminology can also be investigated at this time
- ❖ Estimate the impact of the new classification system on sales potential