Study of Proposed Amendments to Canada’s Beer Standard of Identity

Report prepared by Beer Canada’s Product Quality Committee
October 2013
Authors

Bill Andrews
Manager, Brewing Quality
Molson Coors Canada
William.andrews@molsoncoors.com

Ludwig Batista
National Technical Director
Sleeman Breweries Ltd.
Lbatista@sleeman.ca

Ian Douglas (Committee Chair)
Global Director, Quality and Food Safety
Molson Coors Canada
Ian.douglas@molsoncoors.com

Dr. Terry Dowhanick
Quality Assurance and Product Integrity Manager
Labatt Breweries of Canada
Terry.dowhanick@labatt.com

Anita Fuller
Quality Services Manager
Great Western Brewing Company
anitaf@gwbc.ca

Brad Hagan
Director of Brewing Operations
Labatt Breweries of Canada
Brad.hagan@labatt.com

Peter Henneberry
Adviser
Moosehead Breweries Ltd.
Phenneberry@moosehead.ca

Dave Klaassen
Vice President, Operations
Sleeman Breweries Ltd.
dklaassen@sleeman.ca

Russell Tabata
Chief Operating Officer
Brick Brewing Co. Limited
russellt@brickbeer.com

Luke Harford
President
Beer Canada
Iharford@beercanada.com

Luke Chapman
Manager, Economic and Technical Affairs
Beer Canada
Ichapman@beercanada.com
# Table of Contents

1.0 Executive Summary ........................................................................................................... 4  
2.0 The Canadian Brewing Industry .......................................................................................... 5  
3.0 Historical Context of the Standard ...................................................................................... 6  
4.0 Regulatory Gaps and Overlap in the Standard .................................................................... 7  
   Case Study #1 ....................................................................................................................... 7  
   Case Study #2 ....................................................................................................................... 8  
5.0 Benefits of Amending the Standard .................................................................................... 9  
6.0 House of Commons Standing Committee on Agriculture and Agri-Food ......................... 10  
7.0 Beer Industry Stakeholders ............................................................................................... 10  
   Industry Stakeholders ......................................................................................................... 10  
   Federal Government Stakeholders ....................................................................................... 11  
8.0 Regulatory Precedent ....................................................................................................... 12  
   Canada (Whisky Standard) .................................................................................................. 12  
   Australia ............................................................................................................................. 12  
   United States ....................................................................................................................... 12  
9.0 The Current Standard ....................................................................................................... 12  
10.0 The Proposed Standard ................................................................................................... 13  
11.0 The Path Forward ............................................................................................................ 14  
Annex Items ............................................................................................................................. 15  
   Annex I – Australian Food Standards Beer Definition ....................................................... 15  
   Annex II – United States Beer Definition ............................................................................ 16  
   Annex III – Canadian Beer Standard of Identity .................................................................. 17  
   Annex IV – Economic Impact Study .................................................................................... 19
1.0 Executive Summary

This report provides an overview of the compositional standard (“the Standard”) that applies to beer, which is maintained in section B.02.130 of the Canadian Food and Drug Regulations. The research that led to this report was conducted by Agriculture and Agri-Food Canada in partnership with Beer Canada’s Product Quality Committee.

The authors of this report investigated how the Standard has been shaped over time. Through this research and analysis, as well as direct dealings with experts in the Canadian brewing industry, Beer Canada has concluded that further amendments to the Standard are required.

The existing Standard no longer reflects marketplace realities, including the competition, innovation and technological developments taking place for those products that would naturally fall within the beer category.

It has also been determined through both research and market activity that the Standard, as it exists, presents a level of regulatory uncertainty as to what beverage alcohol products can claim themselves as a beer, which in turn delays label approval and time to market.

Interpretations of the Standard have resulted in similar products being labelled differently, causing confusion for consumers, as well as a number of time-limited product launch delays for manufacturers. Considerable resources on the part of industry and government have been devoted to resolving varying interpretations and other challenges associated with the Standard. All signs point to interpretation issues becoming more prevalent as innovation within the beer category continues to be a primary means of achieving market growth.

Through this report, industry examples are used to provide an understanding of how the Standard can slow innovation and contribute to a climate of regulatory confusion for both beer producers, as well as regulators.

Contained in section 10.0 of this report is a proposed alternative standard, one which has garnered significant support across industry and government. It is the industry’s consensus that its adoption into the Food and Drug Regulations will have far-reaching benefits for brewers, regulators and consumers, and will proactively align with the goals of recently announced regulatory initiatives, including Health Canada’s “Regulatory Roadmap for Health Products and Food”, and the Canadian Food Inspection Agency’s “Food Labelling Modernization” initiative.

As part of this Modernization initiative, on September 12, 2013 the CFIA released an Interpretation Notice acknowledging confusion around what ingredients are permitted for use in beer, specifically in reference to the ambiguity associated with the term carbohydrate matter. While industry commends these efforts, regulatory amendments are still considered to be necessary in order to further clarify the labelling regime for beer.

The importance and need for a modernized Standard has also been expressed by the House of Commons Standing Committee on Agriculture and Agri-Food, which recently released a report in June, 2013 to Parliament, entitled “Toward a Common Goal: Canada’s Food Supply Chain – Part 1”, recommending that “the Government of Canada update the compositional standards for the various types of alcoholic beverages such as beer to keep pace with the changing market.”
2.0 The Canadian Brewing Industry

Economic Impact

Each year, the Canadian brewing industry contributes more than $14 billion to the domestic economy. According to Statistics Canada, that is more than three times the economic impact of the spirits and wine industry combined.

The economic impact of the domestic brewing industry is felt throughout the manufacturing supply chain. It starts at the farm, where Canadian brewers are responsible for purchasing one-third of domestically sold malting barley. Moving up the line, the employment impact of the production, distribution and sale of beer in Canada contributes 163,200 jobs to the Canadian workforce.

Canada’s abundant fresh water and world class malting barley have given Canadian brewers the ability to produce high quality beers that are recognized and respected globally. This is reflected in Canada’s position as one of the top 10 beer exporting countries in the world. Exports account for nearly 17% of Canadian beer produced, with exports amounting to $193 million in 2012.

Beer is the top alcohol beverage choice among Canadians, as sales of the product at Canadian beer stores, provincial liquor board stores and agencies was valued at $9.2 billion in March 2012, up 0.6% from the previous year.¹ Canada, with an average tax rate of 50% on beer, is the second highest taxed country in the world. The combination of municipal, provincial/territorial and federal taxes draws $5.8 billion annually from the brewing industry and its consumers. These tax dollars are used to support government investment in core infrastructure such as hospitals, schools and roads. A comprehensive economic impact study on the Canadian Beer Industry can be found in Annex IV.

An Evolving Industry

Over the past two decades, the Canadian brewing industry has experienced changes both in its structure and its operating environment. The industry has rationalized considerably through mergers, acquisitions and new microbrewery start-ups. The number of brewing facilities increased from 62 in 1990 to approximately 370 today. During this same period the number of individual and distinct brands available to the Canadian consumer grew from 400 to approximately 2,000, while the volume of imports increased from 686,201 hectolitres to 3,411,042 hectolitres in 2012.

Consumer thirst for variety has fuelled the growth of new products and, as a result, there has been a proliferation of new domestic offerings. Today, there is a demand for specialty and premium products, both domestic and imported. Product creativity and innovation has been important to achieving growth in this mature market. Adult per capita consumption of beer in Canada currently sits at 78.6 litres, compared to the historical high of 106.5 litres in 1975.

Although beer remains the alcoholic drink of choice for Canadians in terms of volume and sales, its dominance continues to decline as consumers continue to increase their wine consumption. According to Statistics Canada’s, Control and Sale of Alcoholic Beverages in Canada, in 2002 beer had a market share of 50% by dollar value, but has since been steadily declining and as of 2012 stands at 44%; wine saw its category market share grow from 24% to 31% over the same period.

3.0 Historical Context of the Standard

Canada Gazette amendments to the Standard

The Standard has been amended four times since 1988 through Statutory Orders and Regulations (SOR) published within Canada Gazette Part II. Broadly, and for the most part, these changes occurred in response to developing market conditions, the introduction of innovative technologies and emerging consumer demands. Based on the historical context, as outlined below, there is a strong basis in precedent for the amendments being sought.

- SOR/88-418, s. 2; August 11, 1988, Vol. 122, No. 18.2;
  - Amended regulations provided a new standard of identity for beer, stout, porter and malt liquor under a new generic heading of “Beer”. The standards established beer, ale, stout, and porter contain not less than 1.1% alcohol by volume (previous standard stated not less than 2.6% and not more than 5.5%).
  - Changes were made as to what beers can be considered “light”, and changes were also made to create three new categories for “extra light”, “strong” and “extra strong”, to designate beers, ales, porters, and stout, and one new category of “strong” for malt liquors when the alcohol content of these products falls within the permitted alcohol range.
  - The standards also acknowledged the improvements in brewing technology since 1979, by providing for the use of pre-isomerized hop extract, hydrogen peroxide, and dimethylpolysiloxane in the standard for beer, while removing gibberellic acid. The amendments also recognized that wheat beers were among the specialty beers produced by micro-breweries and brew-pubs at the time, and the regulations provided for the use of wheat malt as an alternative or in addition to barley malt.
  - The regulations also made yeast a mandatory, rather than an optional ingredient, which was then a traditional accepted beer production method both internationally and domestically.

- SOR/92-92, s. 1; February 26, 1992, Vol. 126, No. 5.3;
  - Subparagraph B.02.130(b)(xviii) of the Food and Drug Regulations was amended to provide for the use of isinglass as a fining, filtering and clarifying agent to settle yeast and other insoluble material in beer at the end of the fermentation process. The basic raw material for isinglass is protein collagen from tropical fish, and the amendment was permitted due to increasing consumer demand for natural processing aids in food processing.

- SOR/96-483, s. 1; November 27, 1996, Vol. 130, No. 24.4; and
  - Paragraph B.02.130 (b) of the Food and Drug Regulations was amended by adding the following after subparagraph (vi), (vi, 1 ) for reduced isomerized hop extract. In

---


addition, the Regulations were amended by adding the following Paragraph B.02.135 for "reduced isomerized hop extract", which in this division means:

(a) tetrahydroisohumulones derived from hops
   • (i) by isomerization and reduction of humulones (alpha acids) by means of hydrogen and a catalyst, or
   • (ii) by reduction of lupulones (beta-acids) by means of hydrogen and a catalyst, followed by oxidation and isomerization; and

(b) hexahydroisohumulones derived from hops by reduction of tetrahydroisohumulones by means of sodium borohydride.

- Such amendments were made to the beer standard in 1996, as beers prepared using hop extract and pre-isomerized hop extract as ingredients, could result in the iso-alpha acids reacting with other components of beer within a short period of time after exposure to sunlight to form compounds which impart an off-odour.

- SOR/2006-91, s. 3; May 31, 2006, Vol. 140, No. 11
  - For the allowance of acacia gum, gelatin, and polyvinyl-pyrrolidone as permitted fining agents within beer. The maximum limited stated for acacia gum and gelatin was at a maximum limit of use consistent with good manufacturing practice.

4.0 Regulatory Gaps and Overlap in the Standard

Differing perceptions of ingredients permitted for use in beer

Canada’s Beer Standard, in comparison to international definitions, creates a level of uncertainty in regards to what ingredients can be added to a product, and still be labelled as a beer.

This confusion rests with what industry commonly refers to as the “carbohydrate matter clause”. In countries such as the United States and Australia, both of which are discussed in this report, permitted ingredients such as herbs, spices, fruits and other adjuncts are clearly identified within their respective equivalents to Canada’s Standard.

This however is not the case in Canada, as the Standard does not specifically permit the use of these adjuncts. Instead, their use in beer is justified under the carbohydrate matter clause, which is open to interpretation.

In the past, these varying interpretations by regulators and brewers have posed significant labelling complications, resulting in limited-edition product launch delays.

Case Study #1

One such example that exemplifies the ambiguity of carbohydrate matter is “Rickard’s Cardigan Seasonal Spiced Lager”, a limited time offering during the fall of 2012.

As the launch date for this product approached, the Liquor Control Board of Ontario ruled that the label was not in compliance with the regulations. The justification for this ruling was that because spices,
specifically nutmeg, was added to the product, it would no longer be considered a “beer”, and in turn would require an ingredient list and “contains” statement for all gluten and allergen containing sources.

Eventually, the Canadian Food Inspection Agency over-turned this ruling, however the time lost on retail shelves as a result of this difference of interpretation significantly impacted the success of this product, from both a brand awareness, as well as financial perspective.

A suggested amendment to the current Standard, which is reflected in our proposal, found in section 10.0 of this report, and desired by industry, would be to specifically identify what ingredients are permitted for use in beer, under carbohydrate matter. In doing so, it would provide brewers with an unprecedented level of clarity, and would align with international definitions of beer, as shown in the United States and Australian examples, contained in Annex I and II respectively.

**Implications of section B.02.130 and B.02.131**

Currently, the Food and Drug Regulations maintain one standard of identity for beer (B.02.130), and another, nearly identical standard for ale, stout porter and malt liquor (B.02.131).

Having two separate standards, based on a limited selection of styles does not adequately reflect a marketplace where hundreds of styles are currently available. These separate standards also create unnecessary labelling complications for brewers.

**Case Study #2**

Pump House Brewing Company’s “Blueberry Ale”, prior to its launch experienced a delay for what the Canadian Food Inspection Agency deemed non-compliant labelling practices. The specific explanation offered was that because there is a separate standard for beer and ale it would not be permissible to include both common names on the primary label. 

Reflected in our proposed Standard is the need to improve the labelling regime for beer, by removing the secondary and redundant standard for ale, stout, porter and malt liquor. This would provide Canadian brewers with an opportunity to sufficiently market the style of their products with the confidence that doing so will not result in labelling problems.

**Approved Additives**

In April 2012, Health Canada announced changes to the way in which food additives are approved and listed as permitted for use in standardized products. Moving forward, the provisions within the Standard that are specific to food additives will no longer be updated, and brewers are now required to turn to the Lists of Permitted Food Additives for accurate information on what additives are permitted for use in beer.

Having two separate, potentially contradictory sources of information for approved additives can cause unnecessary confusion within the brewing industry, particularly amongst smaller brewers who may be unfamiliar with how to access such information.

Adopting the proposed Standard in section 10.0 will result in one central source of information on additives approved for use in beer. This will provide much needed clarity, by removing the additives
from the Standard itself, resulting in one accurate, up-to-date and central source of information on additives approved for use in beer.

**No definition for beers in the 0.5% - 1.1% ABV range.**

A gap in the current Standard is the absence of a definition/common name for beer falling within the 0.5% - 1.1% ABV range. Although, at this time products within this range are limited, in the future, given consumer trends and technological advancements, this reduced alcohol category offers a potential new market for brewers.

One of the amendments in the proposed standard is the expansion of the lowest tier of the Common Name Table to include products within the 0.5% - 1.1% ABV range. This amendment would recognize significant technological advancements in brewing lower alcohol products, which enable the preservation of taste and quality. Under this proposed Standard these products would be referred to as “extra light beer”.

Aside from advancements in technological capabilities this amendment would also align with the 2007 National Alcohol Strategy, which recommends the creation of incentives to encourage the consumption of lower-alcohol products as being important to reducing alcohol related harm amongst Canadians. The National Alcohol Strategy - “Reducing Alcohol-Related Harm in Canada: Toward a Culture of Moderation” - was developed through the work of a multi-stakeholder group which included Health Canada as a co-chair.

**5.0 Benefits of Amending the Standard**

The Canadian brewing industry is supportive of a functional and effective regulatory framework, but at the same time requires a clear direction on the technical requirements related to the labelling of beer. The possibility for interpretation by different levels of government at this time is negatively impacting the competitiveness of the domestic industry.

The amendments to the Standard that industry is proposing will bring much needed clarity, including the elimination of redundancies, and points of confusion present in the current framework that governs the definition of beer in Canada.

As outlined in the case studies, the question of what ingredients are permitted under the carbohydrate matter clause is clearly answered in the proposed Standard. That is beer may have added to it at any time carbohydrate matter such as honey, maple syrup, molasses, fruit, fruit juice, fruit concentrate, herbs and spices.

The issue of clarity extends not only to the inclusion of what is considered to be a beer, but also is intended to clearly identify what is not a beer, thereby preserving the integrity of the category. Given the growth in flavoured malt beverages, it is crucial to provide industry, consumers and regulators with the necessary tools to differentiate between beer and non-beer products. The proposed standard contained in this report offers this capability, which is not currently available.

In addition, it is expected that expanding the Common Name Table to allow for products within the 0.5% – 1.1% ABV range will bring much needed clarity for the consumer, as well producers and regulators.
The suggested amendments to the Standard will also meet the objectives of current discussions underway at the broader government and public policy levels; specifically with respect to the recommendation from the House of Commons Standing Committee on Agriculture and Agri-Food for a modernized Beer Standard, Health Canada’s “ Regulatory Roadmap for Health Products and Food”, the CFIA’s “Food Labelling Modernization” Initiative, and the National Alcohol Strategy’s recommendation to provide incentives for both the production and consumption of lower-alcohol beverages, as a means of reducing the harmful use of alcohol.

The suggested amendments contained in this report will help to resolve these industry concerns and in turn will produce a more robust and responsive regulatory regime, not only of benefit to industry but also to consumers and regulators, by way of greater clarity and transparency.

6.0 House of Commons Standing Committee on Agriculture and Agri-Food

In spring 2012, the Standing Committee on Agriculture and Agri-Food undertook a study to better understand current issues within the beverage industry. The mandate of the Committee is to examine issues related to Canada’s agriculture and agri-food industry. It is a public forum where specific events or initiatives affecting the sector can be addressed.

On April 16, 2013, Luke Harford, President of Beer Canada, spoke at the Standing Committee on Agriculture and Agri-Food, addressing the need to modernize the definition of compositional standards for beer under the Food and Drug Regulations.

One of the official recommendations made in the June 2013 Committee report, following consultation with 70 industry witnesses, including Beer Canada, was for the “Government of Canada to update the compositional standard for the various types of alcoholic beverages, such as beer, to keep pace with the changing market”.

The recommendation from the Committee reinforces the position from Beer Canada on the importance to update the Standard.

7.0 Beer Industry Stakeholders

In developing the proposed Standard contained in this report, Beer Canada has had initial consultations with the following stakeholders:

Industry Stakeholders

**Ontario Craft Brewers Association**

The Ontario Craft Brewers Association is a trade association representing 30 small, independent breweries, all of which are located in Ontario. It was founded in 2003 to work collectively on marketing and communications programs to promote the local beer industry.
**Association des Brasseries du Québec**
The Association des Brasseries du Québec/Quebec Brewers Association has represented the major Quebec brewers since 1943. It was created to promote its members’ interests to government agencies and other industry stakeholders. The Association’s membership represents 90% of Quebec beer sales, through 375 different brands.

**Association des Microbrasseries du Québec**
The Association des Microbrasseries du Québec has a membership base of thirty members that are responsible for over 90% of the microbreweries in the province.

**Canada’s National Brewers**
Canada’s National Brewers is the only national trade association for Canada’s three largest brewing companies, which include Molson, Labatt and Sleeman.

**Beer Canada**
Established in 1943, Beer Canada is a voluntary association of 24 brewers from coast to coast which represent 90% of the beer brewed in Canada. Beer Canada works with its members, governments, stakeholders and the public to progressively improve the marketplace for beer.

**Federal Government Stakeholders**

**Health Canada**
Health Canada is the Federal department responsible for helping Canadians maintain and improve their health, while respecting individual choices and circumstances.

**Canadian Food Inspection Agency**
The Canadian Food Inspection Agency (or CFIA) is a science based regulatory agency that is dedicated to the safeguarding of food, animals, and plants, which enhance the health and well-being of Canada's people, environment and economy. One of the CFIA’s missions is to reduce burden on business, while improving service to stakeholders by streamlining regulations and cutting red tape.

**Industry Canada**
Industry Canada works with Canadians in all areas of the economy and in all parts of the country to improve conditions for investment, enhance Canada’s innovation performance, increase Canada’s share of global trade and build a fair, efficient and competitive marketplace.

**Agriculture and Agri-Food Canada**
Agriculture and Agri-Food Canada (AAFC) provides information, research and technology, and policies and programs to achieve an environmentally sustainable agriculture, agri-food and agri-based products sector, a competitive agriculture, agri-food and agri-based products sector that proactively manages risk, and an innovative agriculture, agri-food and agri-based products sector. The department’s goal is to build a world leading agricultural and food economy by promoting innovation and ingenuity.
8.0 Regulatory Precedent

Canada (Whisky Standard)
A recent example of changes made to the standard of identity for alcoholic beverages within the Food and Drug Regulations, is amendments to the Canadian Whisky Standard. On February 10, 2000, the Food and Drug Regulations were amended in order to modify the compositional standard for Canadian whisky as a result of a cooperative effort between Spirits Canada and Health Canada. The amendment appeared in Part II of the Canada Gazette on March 1, 2000. Specifically, Spirits Canada had requested that appropriate compositional standards for Canadian whisky be published in Part I of the Canada Gazette providing, at a minimum, that Canadian whisky: a) be distilled in Canada; b) is aged for at least three years in Canada in wooden barrels; and, c) contains 40% alcohol by volume.

Australia
The Australia/New Zealand Standard of identity for beer was amended in December, 2000 to allow for the inclusion of spices and herbs as a permitted ingredient.

The Australian brewing industry conveyed to Beer Canada that this amendment was necessary to reflect the innovation taking place in the market, specifically the growth in different beer styles that require the addition of spices and herbs.

The Australian definition can be found under Annex I.

United States
In 2005 the United States amended the materials permitted for use in the production of beer under Title 27 section 25.15 in the Code of Federal Regulations.

This amendment helped to clearly permit the use of the following adjuncts in the production of beer: honey, fruit, fruit juice, fruit concentrate, herbs, spices and other food materials.

The United States definition can be found under Annex II.

9.0 The Current Standard

The current standard of identity for Beer (B.02.130) and Ale, Stout, Porter or Malt Liquor (B.02.131) is found within the Food and Drug Regulations.

The beer standard, as it is called, has not been meaningfully updated since the late 1980s and has fallen out of sync with developments in the beer category. The standard has become too prescriptive in some ways and obsolete in others. It has begun to cause problems with label approvals and even product development, as described in separate sections of this report.

The current standard of identity for beer can be found under Annex III.
10.0 The Proposed Standard

The proposed standard has been consulted extensively with the Canadian beer industry and the federal government. This proposal also reflects recent amendments trading partners have taken to modernize their respective beer standards. The proposed standard, which would require amendments to the Food and Drug Regulations, is as follows:

“Beer”

a) Is a product of the yeast fermentation of an extract produced from potable water, barley malt, hops or hop extract, and may include other cereal grains and carbohydrate matter; and

b) Contains not more than 4% by weight of sugars; and

c) Has not had added to it, at any time, artificial sweeteners; and

d) May have added to it at any time:
   i. Carbohydrate matter such as honey, maple syrup, molasses, fruit, fruit juice, fruit concentrate, herbs and spices; and
   ii. Flavours, but only if, in the case of substances that contain alcohol, the alcohol did not add more than 0.5% to the total volume of the final beverage; and

e) Contains more than 0.5% alcohol by volume.

Note: “sugar” means monosaccharide or, disaccharide.

Where a beer contains the percentage of alcohol by volume set out in Column I of an item of the table, the qualified common name set out in column II of that item shall be used in any advertisement of and on the label of the beer.

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage Alcohol by Volume</td>
<td>Qualified Common Name or Common Name</td>
</tr>
<tr>
<td>0.5 to 2.5</td>
<td>Extra Light Beer</td>
</tr>
<tr>
<td>2.6 to 4.0</td>
<td>Light Beer</td>
</tr>
<tr>
<td>4.1 to 5.5</td>
<td>Beer</td>
</tr>
<tr>
<td>5.6 to 8.5</td>
<td>Strong Beer</td>
</tr>
<tr>
<td>8.6 or more</td>
<td>Extra Strong Beer</td>
</tr>
</tbody>
</table>
11.0 The Path Forward

The importance of a clear and concise regulatory framework governing brewers cannot be understated. At this time and moving into the future, innovation is going to continue to drive growth of diversity in brands and the beer market in general, both domestically and internationally.

The Standard being proposed in this report is seen by industry as a significant and critical component of achieving a modernized and flexible regulatory regime, one which aligns with and embraces a constantly evolving market.

Ultimately, the concerns presented in this report can be addressed by adopting the proposed standard. It is the consensus of industry that failure to do so, will lead to a deteriorating situation which sows increased regulatory confusion, and weakens the ability to differentiate the beer category from other beverage alcohol products, thereby negatively impacting the competitiveness of domestic brewers in an increasingly globalized market.
Annex Items

Annex I – Australian Food Standards Beer Definition

STANDARD 2.7.2

BEER

Purpose

This Standard defines the term “beer” and permits the addition of specified foods during its manufacture.

Table of Provisions

1 Interpretation
2 Addition of other foods during production

Clauses

1 Interpretation

In this Standard –

beer means the product, characterised by the presence of hops or preparations of hops, prepared by the yeast fermentation of an aqueous extract of malted or unmalted cereals, or both.

a reference to beer includes a reference to ‘ale’, ‘lager’, ‘pilsener’, ‘porter’ and ‘stout’

2 Addition of other foods during production

The following foods may be added to beer during production –

(a) cereal products or other sources of carbohydrate; and
(b) sugar; and
(c) salt; and
(d) herbs and spices.
Annex II – United States Beer Definition

PART 25: BEER

Subpart B: Definitions

: Standards for Beer

25.15 - Materials for the production of beer. (a) Beer must be brewed from malt or from substitutes for malt. Only rice, grain of any kind, bran, glucose, sugar, and molasses are substitutes for malt. In addition, you may also use the following materials as adjuncts in fermenting beer: honey, fruit, fruit juice, fruit concentrate, herbs, spices, and other food materials.

(b) You may use flavors and other nonbeverage ingredients containing alcohol in producing beer. Flavors and other nonbeverage ingredients containing alcohol may contribute no more than 49% of the overall alcohol content of the finished beer. For example, a finished beer that contains 5.0% alcohol by volume must derive a minimum of 2.55% alcohol by volume from the fermentation of ingredients at the brewery and may derive not more than 2.45% alcohol by volume from the addition of flavors and other nonbeverage ingredients containing alcohol. In the case of beer with an alcohol content of more than 6% by volume, no more than 1.5% of the volume of the beer may consist of alcohol derived from added flavors and other nonbeverage ingredients containing alcohol.

[T.D. TTB-21, 70 FR 235, Jan. 3, 2005]
Annex III– Canadian Beer Standard of Identity

B.02.130. [S]. Beer

(a) shall be the product of the alcoholic fermentation by yeast of an infusion of barley or wheat malt and hops or hop extract in potable water and shall be brewed in such a manner as to possess the aroma, taste and character commonly attributed to beer; and

(b) may have added to it during the course of manufacture any of the following ingredients:

- (i) cereal grain,
- (ii) carbohydrate matter,
- (iii) salt,
- (iv) hop oil,
- (v) hop extract, if the hop extract is added to the wort before or during cooking,
- (vi) pre-isomerized hop extract,
- (vi.1) reduced isomerized hop extract,
- (vii) Irish moss seaweed of the species Chondrus crispus,
- (viii) carbon dioxide,
- (ix) caramel,
- (x) dextrin,
- (xi) food enzymes,
- (xii) stabilizing agents,
- (xiii) pH adjusting and water correcting agents,
- (xiv) Class I preservatives,
- (xv) Class II preservatives,
- (xvi) sequestering agent,
- (xvii) yeast foods,
- (xviii) any of the following fining agents: acacia gum, activated carbon, aluminum silicate, bentonite, calcium silicate, cellulose, China clay, diatomaceous earth, gelatin, isinglass, magnesium silicate, Nylon 66, polyvinylpyrrolidone, silica gel and wood shavings derived from beech, cherry, hazelnut and oak wood,
- (xix) polyvinylpyrrolidone,
- (xx) ammonium persulphate,
- (xxi) in the case of wort, dimethylpolysiloxane, and
- (xxii) in the case of mash, hydrogen peroxide.
B.02.131. [S]. Ale, Stout, Porter or Malt Liquor

(a) shall be the product of the alcoholic fermentation by yeast of an infusion of barley or wheat malt and hops or hop extract in potable water and shall be brewed in such a manner as to possess the aroma, taste and character commonly attributed to ale, stout, porter, or malt liquor, respectively; and

(b) may have added to it during the course of manufacture any of the ingredients referred to in paragraph B.02.130(b).

SOR/88-418, s. 2.

B.02.132. Where a beer, ale, stout, porter or malt liquor contains the percentage of alcohol by volume set out in Column I of an item of the table, the qualified common name or common name set out in Column II of that item shall be used in any advertisement of and on the label of the beer, ale, stout, porter or malt liquor.

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage alcohol by volume</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.1 to 2.5</td>
<td>Extra Light Beer, Extra Light Ale, Extra Light Stout, Extra Light Porter</td>
</tr>
<tr>
<td>2.</td>
<td>2.6 to 4.0</td>
<td>Light Beer, Light Ale, Light Stout, Light Porter</td>
</tr>
<tr>
<td>3.</td>
<td>4.1 to 5.5</td>
<td>Beer, Ale, Stout, Porter</td>
</tr>
<tr>
<td>4.</td>
<td>5.6 to 8.5</td>
<td>Strong Beer, Strong Ale, Strong Stout, Strong Porter, Malt Liquor</td>
</tr>
<tr>
<td>5.</td>
<td>8.6 or more</td>
<td>Extra Strong Beer, Extra Strong Ale, Extra Strong Stout, Extra Strong Porter, Strong Malt Liquor</td>
</tr>
</tbody>
</table>
Annex IV – Economic Impact Study

FROM FARM TO GLASS

The Value of Beer in Canada.
Executive Summary

From Farm to Glass: The Value of Beer in Canada

At a Glance

- The beer economy supports 1 out of every 100 jobs in Canada.
- Beer consumption generates $5.8 billion in annual tax revenues accruing to federal, provincial, territorial, and municipal governments.
- Supply chains stretch from coast to coast, and beer consumption in one province can support jobs in many other regions of the country.
- Some provinces act as brewing hubs, while others supply grains, electricity, transportation, and packaging.

Beer has been a significant part of Canadian life for hundreds of years and continues to be a source of national pride. Beer remains the most popular alcohol beverage in the country, accounting for 8.1 per cent of all household spending on food and beverages. Canadians bought the equivalent of 235 bottles of beer per person in 2012 at stores, and spent half as much again on beer at bars and restaurants.

When you purchase a bottle of beer, you are supporting not only the Canadian brewing industry, but also many other industries along the value chain—the indirect benefit to the economy of beer. (See Exhibit 1.) Additionally, people who work for any industry along the supply chain use their earned income to purchase goods and services, providing the beer economy’s induced benefits. The beer economy as a whole is made up of the direct (brewing), supply chain, and induced effects.

Using The Conference Board of Canada’s econometric model of Canada’s economy, we quantified the size and scope of the entire beer economy. We found that the beer economy supports 163,200 jobs across the country, or 1 out of every 100 jobs in Canada. Moreover, economic activity in the beer economy accounts for 0.9 per cent of total Canadian GDP. Beer consumption affects a wide range of industries along the supply chain and beyond, with each industry adding value to the product along the way. For every $1 that households spend on beer, $1.12 is generated in the economy (in inflation-adjusted terms).

The econometric model also estimated that Canada’s beer economy generated about $5.8 billion (current dollars) in average annual tax revenues over 2009 to 2011 (the three most recent years of available detailed beer consumption data), accruing to all levels of government (federal, provincial, territorial, and municipal). The lift to economic activity drove up household income and corporate profits, helping to boost personal income taxes by $1 billion and corporate profit taxes by another $1 billion. The lion’s share, about $3.8 billion, accrued from other various taxes, ranging from taxes on beer production, to those on goods and services purchased in the beer economy.

Find this report and other Conference Board research at www.e-library.ca
When people buy beer in a specific province, they support a supply chain that can stretch across the country—from brewers in New Brunswick and Quebec, to crop producers in Saskatchewan, to wholesalers in British Columbia, not to mention all the transportation in between. Therefore, beer consumption in one province supports jobs in other provinces and territories as well.

The Atlantic provinces have significant brewing capacity, and the region's beer economy employs thousands of people. Not only are jobs supported in Atlantic Canada as a result of beer consumption in the region, but thousands of jobs are supported in the manufacturing and transportation industries (among others) thanks to beer consumption in other regions of Canada. Taken together, 10,349 jobs are supported in the Atlantic provinces as a result of beer consumption across Canada, and more than 71 per cent of those positions are supported by consumption in the Atlantic provinces alone.

Central Canada is the brewing hub of the country, home to the three largest breweries in Canada. Beer consumption across Canada supports 86,913 jobs in Central Canada, with 80 per cent of those jobs being supported by beer consumption in Central Canada alone. Financial firms that support the industry are headquartered in the region, and rental and insurance services are largely sourced from Central Canada.

While the three Prairie provinces are not large beer brewers, they support a lot of the distribution and warehousing of beer. They also provide inputs into production, such as energy, water, and grains. Taken together, beer consumption across Canada supports 20,394 jobs in the Prairies, with 12,687 of those jobs supported by beer consumption in the Prairies alone.

British Columbia has a vibrant brewing industry, with 72 breweries—second in number only to Ontario. There is also a small brewery in Whitehorse. Combined, beer consumption across Canada supports 18,967 jobs in B.C. and the North, with 73 per cent of those jobs supported by beer consumption in that region alone.

Some regions specialize in producing various goods and services in the national beer economy. The Atlantic provinces tend to produce more electricity and paperboard containers, while Central Canada provides more head office services. The Prairies provide more truck transportation and grains, while beer consumption in B.C. and the North (which is bolstered by consumption by seasonal workers and tourists) helps drive prepared meals and residential rents paid by, for example, bartenders and retailers. (See Exhibit 2.)

---

1 Statistics Canada, Business Register.
2 Ibid.

Find this report and other Conference Board research at www.e-library.ca
The increasing demand for beer in China and other developing countries presents new export opportunities for Canada. Using Statistics Canada's Canadian input-output economic model, we estimated that if Canadian beer exports were to increase by $10 million (that is, by 3.5 per cent), the result would be an inflation-adjusted GDP increase of $10.54 million for Canada's economy. A $10-million increase in exports would also support 70 jobs.

The beer economy is a significant employer and links regions across the country through supply chains. The beer economy affects almost every industry in every province. Therefore, people all across the country benefit from a thriving beer economy.

---

3 SABMiller, Developing Markets Continue to Grow.