

# Beer Alcohol and Calories:

## Alcohol and Calorie Content of About 200 Popular Beers

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### About this document...

Below are the results of a cooperative study completed by Mr. Lester Hankin, and the The Connecticut Agricultural Experiment Station and the Excise Tax Division of the Connecticut Department of Revenue Service.

The above mentioned "FicheNet" \*does not\* know or have any relationship whatsoever with either Mr. Hankin or any Connecticut State Department. This FAQ results from the saving of a post to Usenet's alt.beer in late 1993.

Special thanks to Mike Feustel , whose "friend" originally unearthed this data from somewhere. Now if he could only remember where!

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### Background

Consumption of beer in the United States is about 33 gallons per person per year based on persons over 18 years of age (6). In all, over six billion gallons of beer are produced each year in the United States (6,7).

Generally three types of beer are sold: regular, light, and non-alcoholic. The term light intends to signify a product with less alcohol and fewer calories than regular beer. About 2-3 percent of beer sales are now of the light type (4). Non-alcoholic beer usually claims less than a half percent of alcohol and is intended for people who desire a product with little or no alcohol.

In all, 202 samples of beer were tested. The alcohol and calorie content for each sample are reported. In comparison to regular beer which averaged 5 percent alcohol and 43 calories per 100 ml, light and non-alcoholic beer averaged 16 and 94 percent less alcohol and 27 and 60 percent fewer calories, respectively.

### Analysis of Beer

TABLE I--ALCOHOL AND CALORIE CONTENT OF BEER

Brand/Brewer (Country)	% Alcohol per 100 ml	Calories
Anchor Porter		
Anchor (USA)	5.66	59
Anchor Steam Beer		
Anchor (USA)	4.63	43
Asahi Draft Beer		
Asahi (Japan)	5.21	41
Ballantine Private Stock Malt Liquor		
Narragansett (USA)	6.01	47
Ballantine India Pale Ale		
Falstaff (USA)	6.61	55
Ballantine Premium Lager Beer		
Falstaff (USA)	4.82	43

Ballantine XXX Ale	5.68	49
Falstaff (USA)	5.08	46
Bass 8 Co's Bale Ale	4.02	37
Bass (England)	5.51	45
	4.95	41
Beamish Irish Cream Stout		
Beamish - Crawford (Ireland)	3.73	37
Beck's Beer	5.13	43
Brauerei Beck (Germany)	5.13	42
Big Barrel Australian Lager	3.98	31
Cooper 8 Sons (Australia)	4.66	39
Black Horse Premium Draft Beer		
Black Horse (USA)	4.74	45
Blatz Beer		
G. Heileman (USA)	4.86	43
Blatz Milwaukee 1851 Beer		
Blatz (USA)	4.48	38
Boulder Porter		
Boulder (USA)	6.07	53
Budweiser King of Beers	4.82	40
Anheuser Busch (USA)	4.47	39
Busch Beer	4.98	42
Anheuser Busch (USA)	5.19	43
Carling Black Label Canadian	4.71	45
Style Beer G. Heileman (USA)	4.38	39
Cerveza Carta Blanca		
Cerveceria Cauhtemoc (Mexico)	4.02	36
Cerveza Tecate Beer	4.10	37
Cerveceria Cauhtemoc (Mexico)	4.49	41
Chester Golden Ale		
Greenall Whitley (England)	5.43	44
Colt 45 Malt Liquor	5.53	45
G. Heileman (USA)	6.11	49
Coors Banquet Beer	4.81	39
Adolph Coors (USA)	5.03	41
Corona Extra Beer		
Cereveria Modela SA (Mexico)	4.84	45
Dos Equis XX Imported Beer		
Cauhtemoc (Mexico)	4.79	42
Dos Equis XX Special Lager		
Cerveceria Montezuma (Mexico)	4.96	44
Dragon Stout		
Desnoes - Goeddes (Jamaica)	6.79	62
Foster's Lager	5.25	42
Garlton & United (Australia)	5.06	44
Furstenberg German Beer		
Fustlich Ferstenbergische (Germany)	4.43	39
Genesee 12 Horse Ale	4.76	46
Genesee (USA)	4.98	44
Genesee Beer		
Genesee (USA)	5.03	43
Genesee Cream Ale	4.9B	44
Genesee (USA)	4.70	42
George Killian's Irish Red Ale		
Adolph Coors (USA)	5.79	50
George Killian's Irish Red Brand Beer		
Adolph Coors (USA)	5.54	49
Great Wall Imported Chinese Beer		
Green Bamboo (China)	4.63	45

<b>Greenall's Cheshire English Pub Beer</b>		
Grecnall Whitley PLC (England)	5.00	40
<b>Grizzly Canadian Lager</b>	5.48	43
Hamilton (Canada)	4.45	36
<b>Grolsch Lager Beer</b>	5.11	44
Grolsch Bierbrouweri (Holland)	5.17	44
	5.16	43
	5.37	44
<b>Guinness Extra Stout</b>		
Gulness (Ireland)	4.27	43
<b>Harfenrefrer Private Stock Malt Lliquor</b>		
Narragansett (USA)	6.87	50
<b>Hamm's Beer</b>		
Pabst (USA)	4.53	40
<b>Harp (mported Lager Beer</b>	4.55	40
Harp (Ireland)	4.71	42
	4.96	43
<b>Heineken Lager Beer</b>	5.41	47
Heineken (Holland)	5.41	45
<b>Heineken Special Dark Beer</b>		
Heineken (Holland)	5.17	48
<b>Hofenperle Special Feldschlosschen Bier</b>		
Feldsohlosschen Rheinfelden		
(Switzerland)	5.28	45
<b>Kaiserdorn Rauchbier-Smoked Bavarlan Dark Beer</b>		
Bamberg Worner OHG (Germany)	5.88	49
<b>Kirin Beer</b>	6.85	53
Kirin (Japan)	5.27	43
<b>Knickerbocker Natural Beer</b>		
Ruppert (USA)	4.16	38
<b>Kronenbourg Beer</b>	5.11	43
Kronenbourg (France)	4.83	42
<b>Kronenbourg Imported Dark Beer</b>	5.08	46
Kronenbourg (France)		
<b>Kuppers Kolsch</b>		
Kuppers (Germany)	5.38	45
<b>LA Anheuser Busch Premlum Pilsner Beer</b>		
	2.29(a)	26
Anheuser Busch (USA)	2.00(a)	29
<b>Labatt's 50 Canadian Ale</b>	5.34	43
Labatt (Canada)		
<b>Liberty Ale</b>		
Anchor (USA)	6.12	53
<b>Lord Chesterrfeld Ale</b>	5.40	30
D.G. Yuenglink 8 Son(USA)	5.57	44
<b>Lowenbrau Dark Special Beer</b>		
Miller (USA)	5.00	45
<b>Lowenbrau Special Beer</b>	5.12	45
Miller (USA)	5.03	44
<b>McEwans Scotch Ale</b>		
Scottish & Newcastle (Scotland)	9.50	83
<b>Michelob Beer</b>	4.90	44
Anheuser Busch (USA)	4.99	45
<b>Michelob Classic Dark Beer</b>		
Anheuser Busch (USA)	4.76	45
<b>Michelob Classic Dark Beer</b>		
Anheuser Busch (USA)	4.93	45
<b>Mickeys Fine Malt Lliquor</b>		
G. Heileman (USA)	5.70	45

Miller High Life Beer	4.78	44
Miller (USA)	4.80	43
Miller High Life Genuine	4.68	42
Draft Beer, Miller (USA)	5.02	43
Molson Canadian Beer		
Molson (Canada)	5.19	43
Molson Golden Beer	6.04	48
Molson (Canada)	5.22	43
Moosehead Canadian Lager Beer	5.08	43
Moosehead (Canada)	4.84	40
	4.92	40
O'Keefe Canadian Beer	4.96	40
O'Reefe (Canada)	5.03	41
Olde English Brand 800 Malt Liquor	6.13	48
pabst (USA)	5.78	45
Old Milwaukee Beer	4.95	44
Stroh (USA)	4.51	41
Olympia Premium Lager Beer		
Pabst (USA)	4.78	41
Pabst Blue Ribbon Beer	4.50	39
Pabst (USA)	5.01	43
	5.00	43
Piels Premium Draft Style Beer	4.84	43
Stroh (USA)	4.23	39
Pilsener Urquell Beer		
Pilsener Urquell Pilsen	4.25	45
(Czechoslovakia)		
Red Stripe Lager Beer	5.04	43
Desnoes & Geddes (Jamaica)	4.82	42
Red White & Blue Special Lager Beer		
G. Heileman (USA)	5.15	43
Rheingold Premium Beer		
Rheingold (USA)	4.78	42
Rolling Rock Extra Pale Premium Beer		
Latrobe (USA)	4.64	40
Rolling Rock Premium Beer	4.51	34
Latrobe (USA)	4.27	38
Samuel Adams Boston Lager	4.67	50
Boston Beer (USA)	4.88	48
	4.74	44
Schaefer Beer	4.66	40
Stroh (USA)	4.60	40
	4.48	40
Schlitz Beer	4.70	41
Stroh (USA)	4.41	40
	4.60	42
Schlitz Malt Liquor		
Stroh (USA)	6.29	52
Sheaf Stout		
Carlton & United (Australia)	5.28	49
Sierra Nevada Pale Ale		
Sierra Nevada (USA)	4.82	45
Sierra Nevada Porter		
Sierra Nevada (USA)	5.34	48
Sierra Nevada Stout		
Sierra Nevada (USA)	5.10	56
Signature Stroh Beer		
Stroh (USA)	4.84	43
Sol Cerveza Especial	3.94	36
Cerveceria Montezuma (Mexico)	4.13	37

<b>Spaten Munich Special Dark Beer</b>		
Spten-Brau (Germany)	6.63	52
<b>St. Pauli Girl Beer</b>	5.00	39
St. Pauli (Germany)	4.79	41
<b>St. Pauli Girl Dark Beer</b>	5.02	45
St. Pauli (Germany)	4.93	44
<b>Stroh's Beer</b>	4.64	41
Stroh (USA)	4.68	42
<b>Suntory Draft Beer</b>		
Suntory (Japan)	4.64	39
<b>Superior Imported Beer</b>		
Cerveceria Moctezuma (Mexico)	4.34	43
<b>Thos Cooper &amp; Sons Adelaide Lager</b>		
Cooper 8 Sons (Australia)	4.27	36
<b>Thos Cooper 8 Sons Naturally Brewed Real Ale</b>		
Cooper & Sons (Australia)	6.77	45
<b>Thos Cooper &amp; Sons Naturally Brewed Stout</b>		
Cooper & Sons (Australia)	7.10	58
<b>Tolly Original Premium Ale</b>		
Tollei-ache & Cobbold (England)	4.85	41
<b>Tsingtao Beer</b>		
Tsingtao (China)	4.79	43
<b>Tuborg Deluxe Dark Export Quality Beer</b>		
G. Heileman (USA)	5.11	46
<b>Tuborg Export Quality Beer</b>	5.02	45
G. Heileman (USA)	5.02	44
<b>Tusker Malt Lager</b>		
Bia Ni Bora (Kenya)	5.24	42
<b>Utica Club Pilsener Lager Beer</b>		
West End (USA)	4.82	27
<b>Watney's Red Barrel Beer</b>		
Stag (England)	3.92	40
<b>Wurzbürger Hofbrau Pilsner Beer</b>		
Wurtzburger Hofbrauag (Germany)	5.42	45
<b>Yuengling Porter</b>		
D.G. Yuengling & Son (USA)	4.13	40
<b>Yuengling Premium Beer</b>		
D.G Yuenglink & Son(USA)	4.65	39
	4.11	39

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(a) claims half the alcohol of regular beer

**TABLE 2--ALCOHOL AND CALORIE CONTENT OF LIGHT BEER**

<b>Brand BreHer (Country)</b>	<b>% Alcohol per 100 ml</b>	<b>Calories</b>
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<b>Amstel Light Bier</b>	3.74	29
Amstel Brouwerij B.V. (Holland)	3.96	28
<b>Anheuser Busch Natural Light Beer</b>	4.40	33

Anheuser Busch (USA)	4.12	31
Bud Light Beer	3.56	30
Anheuser Busch (USA)	3.88	33
Coors Light Beer		
Adolph Coors (USA)	4.36	30
Dribeck's Light Low Calorie Beer		
Brauerei Beck (Germany)	3.39	28
Genesee Light Beer		
Genesee (USA)	3.55	27
Michelob Light Beer	4.53	41
Anheuser Busch (USA)	4.52	39
Miller Lite Pilsner Beer	4.61	31
Miller (USA)	4.40	29
Molson Light Beer		
Molson (Canada)	2.41	23
Nordik Wolf Light Imported Beer	4.81	32
A.B. Pripps Bryggerier (Sweden)	4.70	31
Old Milwaukee Premium Light Beer		
Stroh (USA)	3.82	32
Pabst Extra Light Low Alcohol Beer		
Pabst (USA)	2.50(a)	19
Piels Naturally Light Beer		
Stroh (USA)	4.49	40
Rheingold Extra Light Beer		
Rheingold (USA)	4.32	27
Schaeler Light Lager Beer		
Stroh (USA)	4.07	34
Schlitz Light Pilsner Beer		
Stroh (USA)	4.28	31
Stroh Light Beer	4.91	42
Stroh (USA)	4.45	35
Watney's London Light Beer		
Whatney Combe Reid (England)	3.56	29
Wurtzburger Hofbrau Pure Bavarian Light Beer		
Wurtzburger Hofbrau Ag (Germany)	5.44	43

(a) claims 50% less alcohol than regular beer

TABLE 3--ALCOHOL AND CALORIE CONTENT OF NON-ALCOHOLIC BEER

Brand Brewer (Country)	% Alcohol per 100 ml	Calories
Bass Barbican Non-Alcoholic Malt Beverage		
Bass (England)	0.10	15
Clausthaler Non-Alcoholic Herbfrisches Schankbier		
Bindlmg Brauerei (Germany)	0.44	13
Clausthaler Non-Alcoholic Herbfrisches Schankbier		
Bindlmg Brauerei (Germany)	0.48	14
Elan Swiss Brew Non-Alcoholic Malt Beverage		

Feldschloschen (Switzerland)	0.50	25
<b>Kallber All Natural Non-Alcoholic Brew Light Malt Beverage</b>		
Guinness (England)	0.10	14
Kingsbury Non-Alcoholic Malt Bev.	0.20	15
G. Heileman (USA)	0.10	14
	0.10	13
<b>Metbrau All Natural Draft Non-Alcoholic Malt Beverage</b>		
Metropolis (USA)	0.50	21
Moussy Non-Alcoholic Malt Beverage	0.05	15
Cardinal Filbourg (Switzerland)	0.10	16
<b>Saint Michael's Non-Alcoholic Malt Beverage</b>		
St. Michael's (USA)	0.73	17
<b>Wurtzburger Hofbrau Non-Alcoholic Light Malt Beverage</b>		
Wurzberger Hofbrau Ag (Germany)	0.10	30

**TABLE 4--AVERAGE ALCOHOL AND CALORIE CONTENT OF REGULAR, LIGHT, AND NON-ALCOHOLIC BEER**

Product	No. samples	% Alcohol	Calories per 100 ml
Regular	163	5.0 [2.0-9.5]	43 [26-83]
Light	26	4.1 [2.4-5.4] (-16%)	32 [19-43] (-27%)
Non-alcoholic	13	0.3 [0.1-0.7] (-94%)	17 [13-30] (-60%)

The number in parentheses ( ) indicates average difference from regular beer and numbers in brackets [ ] is the range of % alcohol and calories per 100 ml, respectively.

## ADDITIONAL DATA

Beer is a generic name for beverages made by fermentation of extracts of cereal grain, particularly barley, or other starchy material (1,8). Beer is a beverage known since antiquity and next to wine is probably the oldest of prepared food drinks. In modern times the countries of northern Europe set the style of beer as it appears today. In fact, the words "beer," "brewing," and "Lager" are all of German origin (1,8).

Beer is defined in Connecticut Statutes (2) as any beverage obtained by the alcoholic fermentation of an infusion or decoction of barley, malt and hops in drinking water and containing more than one-half of one percent of absolute alcohol. Taxes on beer sold in Connecticut are collected by the Excise Tax Division of the Department of Revenue Services at the rate of \$3 per barrel (not less than 28 nor more than 31 gallons per barrel).

## METHODS

Samples were collected at wholesale beer distributors in Connecticut by inspectors of the Excise Tax Division of the Department of Revenue Services during April and May, 1987. Analysis for alcohol content was by AOAC methods (5) using gas chromatography (3). Proteins, ash, and solids were analyzed by AOAC methods (5). Carbohydrate content was calculated as percent total solids - (% protein + % ash) Calories were calculated as (% alcohol X 6.93) + ((96 carbohydrate + %protein) X 4) (3). Duplicate analyses for alcohol in the same container of beer showed an average deviation of 0.057 percent and duplicates for protein 0.05 percent.

## RESULTS AND DISCUSSION

Of the 202 samples tested, 163 were regular beer (Table 1), 26 were light beer (Table 2), and 13 were non-alcoholic beer (Table 3). These represented 81, 19 and 9 different brands of regular, light, and nonalcoholic beer, respectively. Each Table lists the brand name of the beer, the name of the brewer, the country of origin, alcohol content, and the calories per 100 ml (milliliters) (3.5 ounces).

Alcohol in regular, light, and non-alcoholic beer averaged 5.0, 4.1, and 0.3 percent, respectively (Table 4). Calories in regular, light and non-alcoholic beer averaged 43, 32, and 17 per 100 ml, respectively. The range in values for alcohol and calories was wide. Alcohol in regular beer ranged from 1.0 to 9.5 percent, while light beer ranged from 2.4 to 5.4 percent and non-alcoholic beer from 0.1 to 0.7 percent. Similarly, calories varied among all types of beer. Some variation was noted in alcohol content among different containers of the same type of beer. A difference of 1.5 percent was found in one type of regular beer and 1.6 percent in another. Although the labels showed no code numbers, each container of beer is likely from a different manufacturing batch.

A comparison of alcohol and calorie content between regular and light beer from the same manufacturer can be made by examining Tables 1 and 2. For example, eight regular beers made by Anheuser Busch (does not include beer claiming half the amount of alcohol as regular beer) averaged 5.11 percent alcohol. Four light beers from the same manufacturer averaged 4.17 percent, 15 percent less than found in the regular beer. Calories in the same Anheuser Busch regular beer averaged 44 per 100 ml and 35 in light beer, or 20 percent lower calories. Similar comparisons may be made for other manufacturers.

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