

## BYO Priming Chart For Bottle-conditioned Homebrew

The amount of carbonation in bottle-conditioned homebrew is dependent on two things — the residual level of carbon dioxide after fermentation and the amount of carbonation obtained from the priming sugar

To get the level of carbonation you desire in your homebrew, choose a level of carbonation (from Section A) and subtract the amount of residual carbonation in your beer after fermentation (from Section B). This is the amount of carbonation you to add via priming sugar. The amount of carbonation produced by three different priming agents (anhydrous glucose, glucose monohydrate and sucrose) in 5 gallons (19 L) of beer is given in Section C.

For example, let's say you fermented an American pale ale at 68 °F (20 °C) and plan to carbonate it with corn sugar (glucose monohydrate). From section A below, you decide that you want your carbonation level to be 2.4 volumes of CO<sub>2</sub>. From section B, you see that you should have 0.85 volumes of CO<sub>2</sub> in your beer after fermentation at 68 °F (20 °C). Subtracting 0.85 from 2.4 gives you 1.55 volumes of CO<sub>2</sub>, the amount of carbonation required from the priming sugar. From section C, you see that adding 4.5 oz. (128 g) yields 1.53 volumes of CO<sub>2</sub>, which is pretty close.

### Section A

#### Levels of Carbonation in Various Beer Styles

Style	Volume of CO <sub>2</sub>
American ales	2.2–3.0
British ales	1.5–2.2
German weizens	2.8–5.1
Belgian ales	2.0–4.5
European lagers	2.4–2.6
American lagers	2.5–2.8

Section B  
 Residual Carbonation Left Over After Fermentation  
 Temperature

(°F/°C)	Volumes CO <sub>2</sub>
47 °F (8.33 °C)	1.21
50 °F (10.0 °C)	1.15
53 °F (11.7 °C)	1.09
56 °F (13.3 °C)	1.04
59 °F (15.0 °C)	0.988
62 °F (16.7 °C)	0.940
65 °F (18.3 °C)	0.894
68 °F (20.0 °C)	0.850
71 °F (21.7 °C)	0.807
74 °F (23.3 °C)	0.767
77 °F (25.0 °C)	0.728
80 °F (26.7 °C)	0.691
83 °F (28.3 °C)	0.655

Section C  
 Carbonation Levels Added to 5 gallons (19 L) of Beer by Priming Sugar

C1.) Priming with anhydrous glucose (anhydrous dextrose)

Glucose (oz.)	Glucose (g)	Volumes CO <sub>2</sub> /19 L
1.0	28.3	0.37
1.5	42.5	0.56
2.0	56.7	0.75
2.5	70.9	0.93
3.0	85.0	1.12
3.5	99.2	1.31
4.0	113	1.49
4.5	128	1.68
5.0	142	1.87
5.5	156	2.05
6.0	170	2.24
6.5	184	2.43
7.0	198	2.61
7.5	213	2.80
8.0	227	2.99
8.5	241	3.17
9.0	255	3.36

C2.) Priming with glucose monohydrate (dextrose monohydrate)

Glucose.H <sub>2</sub> O (oz.)	Glucose.H <sub>2</sub> O (g)	Volumes CO <sub>2</sub> /19 L
1.0	28.3	0.34
1.5	42.5	0.51
2.0	56.7	0.68
2.5	70.9	0.85
3.0	85.0	1.02
3.5	99.2	1.19
4.0	113	1.36
4.5	128	1.53
5.0	142	1.70
5.5	156	1.87
6.0	170	2.04
6.5	184	2.21
7.0	198	2.37
7.5	213	2.54
8.0	227	2.71
8.5	241	2.88
9.0	255	3.05

C3.) Priming with sucrose

Sucrose (oz.)	Sucrose (g)	Volumes CO <sub>2</sub> /19 L
1.0	28.3	0.39
1.5	42.5	0.59
2.0	56.7	0.79
2.5	70.9	0.98
3.0	85.0	1.18
3.5	99.2	1.37
4.0	113	1.57
4.5	128	1.77
5.0	142	1.96
5.5	156	2.16
6.0	170	2.36
6.5	184	2.55
7.0	198	2.75
7.5	213	2.95
8.0	227	3.14
8.5	241	3.34
9.0	255	3.54