

PRIMING WITH CANDI SYRUPS

Introduction

Bottle carbonation is a broad and interesting topic that can be the subject of long round-the-tun discussions involving everything from organic chemistry and residual CO₂ to the structural physics of various types, shapes and thicknesses of glass bottles. In deference, this document is intended to be a quick reference sheet for the brewer recreating traditional priming methods.

Carbonating ales and lagers in our time is done using one of two methods; forced and natural. We're concerned with the definition and execution of natural carbonation. Primed or natural carbonation is achieved by generating CO₂ in beer as a natural by-product of yeast consuming its native food, sugar. Since candi syrup is composed primarily of directly fermentable sugars, (monosaccharides), it is an ideal source for carbonation.

****Warning****

Glass bottles are only flexible to a degree. Never carbonate at or above the pressure rated for the bottle you are using for carbonation and always use new bottles, (and recycle the old). If in doubt about bottle pressure ratings contact your bottle reseller or the bottle manufacturer to obtain the pressure rating for your bottle style. If you are carbonating in a non-temperature controlled environment you could cause risk to anyone even walking near your carbonated bottles. Always have a temperature controlled area to place your carbonated bottles for aging and storage.

Preparation

CSI Candi Syrups are package-filled in a sterile environment so they do not need to be sterilized however we do recommend that the exterior of the package be sterilized before opening. It is highly recommended that the syrup be diluted when used for priming. This will assure rapid miscibility and an even mixture when added to cool ale. Due to dilution it is recommended that the water and syrup be boiled and cooled prior to addition. Below are the steps commonly used when priming with candi syrup:

- Weigh¹ the syrup by adding to a borosilicate beaker on a gram scale
- Add half as much weight again of your preferred water, (if using 150g of syrup use 75g of water)
- Boil, cover and cool
- Gently stir the admixture into the ale just prior to bottling²

¹Weight is the preferred measurement over volume for measuring priming sugars.

² For higher gravity ales re-pitching yeast may be required to achieve the target carbonation.

Quick Priming Chart

CO₂ (Volumes)	Candi Syrup (grams/gallon)	Candi Syrup for priming 5 gallons (grams)
2.0	22.47	112.35
2.1	24.66	123.30
2.2	26.84	134.20
2.3	29.03	145.15
2.4	31.21	156.05
2.5	33.40	167.00
2.6	35.58	177.90
2.7	37.77	188.85
2.8	39.95	199.75
2.9	42.14	210.70
3.0	44.32	221.60