



The Midland Craft Brewers Association



Brewing crafted ales.....at home

Bottling Techniques

Bottling techniques, the theme for the Chesterfield meeting in November 2010 had 25 responses to the questionnaire – an excellent result. A summary of the information provided in those replies is as follows:

Question 1. **At what temperature do you normally ferment your beer**

The majority aim for a temperature of around 20C but are very much dependant on ambient temperature rather than a specialised temperature controlled environment, so this can vary with the time of the year. Exceptions include Ron A, who aims for a temperature of 22C while Ray C prefers 18C. Peter F, Nick F, Mike C and Allan G have bespoke cabinets or fridges fitted with heaters and/or cooling systems with adjustable thermostats.

Question 2. **How long does your fermentation usually take?**

Question 3. **How long after fermentation do you bottle?**

These two questions have been combined because fermentation continues for a long time, albeit very slowly and the main point is the time taken between pitching the yeast and bottling the beer.

It appears that an interval of 10 days between pitching and bottling is the norm although there are quite a few variations. For example – Ron A, Dave G, Paul T, Steve R, Alan Q and Dave W take between 5 & 7 Days. At the other end of the scale Simon J, Damian A and Richard B go for a fourteen day interval with Steve S 17/21 days, Steve B 21 days and Steve O 28 days.

Question 4. **How do you decide when your beer is ready for bottling?**

The majority of people use time as the main criterion. A few check the OG hasn't moved for a couple of days, the lack of bubbling from an airlock and the clarity of the beer. Paul T checks the gravity with a view to bottling when the hydrometer reading is a couple of degrees above final gravity to allow for natural conditioning. Alan Q and Dave W work on a seven day cycle so the yeast can be reused. Steve R bottles after 7 days due to work commitments.

Question 5. **Do you maintain the same temperature throughout the fermentation period or do you cool your beer to help with clearing? If the latter please explain your method.**

Responses show an equal split between those that maintain the same temperature and those that cool prior to bottling. Martin R cools the most with 5C for 7 days, Nick F and Richard B at 8C, while Peter F and Mike C cool to 12C and 14C respectively. Alan Q and Dave W turn the heating off after 5 – 6 days. It seems that the majority either cool or would like to cool if they had the equipment to do so.

Question 6. **Do you bottle straight from the primary or do you use a bottling bucket or barrel or other container?**

Approx 25% bottle direct from the primary. The rest from the secondary / bottling bucket / cornie, where it stays for different lengths of time.

Question 7. **If you use a bottling bucket, barrel or container please explain your method.**

Question 8. **When transferring your beer to a bottling bucket/barrel/other container do you use a siphon or if not, what method do you use?**

Responses show that we are equally split between those siphoning from the primary into a bottling bucket or container and those using a tube fixed to the tap on the fermentation vessel.

Question 9. **How do you transfer your beer into bottles?**

Approx 50% use a bottling stick, whereas the tube and tap method account for a further 25%. Approx 25% use a siphon while Steve B and Dave G decant into a jug and fill the bottles from the jug. Nick F has recently ordered a 3 bottle filling machine.

Question 10. **Do you use priming to provide condition? If not then how do you achieve sufficient condition?**

Responses indicate that 80% prime their beers although amounts vary between ¼ tsp and 1 tsp per bottle. However Simon J, Dave H, Jim N and Paul T do not prime. Nick F bottles 2 points above final gravity to ensure extra sugar is available for conditioning.

Question 11. **If you use primings, what do you use?**

Of those brewers who prime, 70% use white sugar and 18% use glucose. Simon J and Ernie G use brewing sugar, while Steve S uses DME because he says that 'DME gives a nicer carbonation especially when left over longer periods of time' whereas sugar makes his beer 'too gassy with large bubbles similar to coke'. Peter F uses a 50/50 mixture of golden cane sugar and glucose.

Question 12. **If you add primings do you do this in bulk or to each bottle? Please explain your method.**

There is a 50/50 split between those that add primings to each bottle and those who add in bulk.

Question 13. **Do you rely on the primary yeast to ferment the primings or do you add additional yeast? (krausening). If the latter please explain.**

All but two use the primary yeast for fermenting the primings although Ron A and Peter F krausen their strong beers. For some time now Allan G has krausened using fresh dry primary yeast, something Martin R is also experimenting with. Martin however adds his new yeast at room temperature, although the beer will be at 5C.

Question 14. **Do you use finings and if so, which finings do you use and how do you use them?**

Nearly 80% never use finings with bottled beer although Peter F will use finings with a poor flocculating yeast and Simon J and Paul T use them as a matter of course. One or two who don't fine their bottled beers do use finings for cask beer.

Question 15 **What method of cleaning/sterilisation do you use after emptying your beer bottles and storing them prior to reuse?**

80% of responses indicate that swilling with hot or cold water is the norm unless stubborn stains are visible. Steve O and Steve S use detergent and Ernie G a drop of bleach. Damian A cleans with VWP then closes the bottle with a plastic seal. Allan G adds ½ pint of bleach to a Fermentation Vessel diluted with 20 litres of water and soaks the bottles for 20 minutes before rinsing.

Question 16. **What method of cleaning/sterilisation do you use before filling your beer bottles?**

Many different methods are used including Sodium Met, VWP solution, washing soda, citric acid, Super Cleanse and bleach. Ron A and Steve B bake in the oven. Ron tells me he bakes at 130C for 15/20 mins.

Question 17. **How long do you warm condition your beer after bottling to ferment the primings? Also at what temperature and where do you keep it?**

Over 80% warm condition for about 1 week. The noticeable exceptions are Dave H and Steve R, who store their beer in the garage throughout the year. Martin R bottles his beer at 5C and stores it in the garage unless freezing when he stores it in the house for 1 week.

Question 18. **At what temperature do you cool condition your beer and where do you keep it?**

Approx 60% store their beers in the garage or shed, while others use a larder or cellar. However Peter F has a bespoke beer fridge with adjustable thermostats operating between 2 –15C. Allan G also has a cabinet which has a heater and refrigeration unit for cool conditioning at any temperature.

Question 19. **Do you sterilise your bottle caps? And if so, how?**

Approx 30% do not sterilise, with the remainder using a variety of practices including boiling water, VWP, Sodium Met and SDP.

Question 21. **How much of a headspace do you leave when bottling and why?**

A variety of answers here, ranging from ¼ inch to 2 inches. A number of people using a bottling stick leave a fairly large space equal to the space taken up by the bottling stick. Allan G uses a bottling stick then tops up to about ½ inch from a measuring jug.

Question 22. **Are you happy with your head formation and head retention ?If not please explain the problem.**

Generally most are happy with their head formation and retention although one or two say their results are a bit variable. Quite a few use wheat malt or torrified wheat as an aid to head formation and retention but some do not like the biscuity flavour of torrified wheat