HERVEY BAY HOME BREW
beer, wine, spirits & accessories

Hints and tips to solve common brewing issues.

Q. How long to ferment?

A. In beer making all time is relative to temperature. The warmer the brew, the faster the ferment, reducing quality and the quicker it will spoil once fermentation has finished, that is, prior to bottling. The cooler the brew, the more slowly things happen and the lower the off flavour production. Learn to use your hydrometer to be sure when to bottle, having 3 days with a stable reading is the only sure way to tell when to bottle, (this confirms all available sugars have been used by the yeast) 10-14 days is about average but could extend in cooler weather. The fermentation stage is the most critical time in brewing for achieving best results so take care here.

It's not a race... Don't be in a hurry and you will make better beers!

Q. Air-lock not bubbling

A. This is the most common problem of all. Usually the individual assumes the brew is not fermenting so 'out she goes'. Fermenters do not always seal well and if not sealed, the air lock doesn't bubble (moulding flashing is a common cause of leaks). First, assess the situation properly by taking a hydrometer reading or by looking for visual signs of what's going on. If the brew is still fermenting, seal it as well as you can, get a new lid/ seal/ grommet before you next brew. If it is finished, bottle immediately. Don't throw it out, as it's quite possibly OK. The airlock is there to keep air out **not** as a guide to fermentation activity.

Q. Fermentation doesn't start or stops early

A. Genuine lack of fermentation can only be caused by:

1. Not adding the yeast or the sachet is old and inactive.
2. Adding yeast over 37℃
3. Temperature too cold, below 16℃ can cause definite problems for ale yeast (supplied with almost all home brew beer kits). Warm the brew by using a brew heater or some other method to 18-22℃. Brews will often stop in the later stages of fermentation in cold conditions. Better still, at low temperatures, switch to proper lager yeast.

However 99 times out of 100 it will be simply poor sealing of your fermenter. Don't trust the airlock!

Q. Can I add another yeast?

A. Many home brewers add another yeast because they think the brew is not fermenting. Often fermentation has already finished. The lag Phase for yeast growth can be 24-48 or more hours. The anxious brewers gaze at the air-lock and if it's not bubbling, they assume nothing is happening. Fermentation is inevitable if the temperature is right, so use your hydrometer if there's

any doubt. Don't rely on the airlock that's not what it's there for! See also **Q. Air-lock not bubbling** above.

Q. Frothing through the air-lock

A. This is a common problem in hot summer conditions. Absolutely no harm befalls the brew; it only happens in the first stage of fermentation (called the Krausen - it's actually a good sign if the temperature is in the correct range). Simply wash the air-lock and refill it with water and a touch of sanitiser. Alternatively ask me about fitting a blow off bottle.

Q. Mysterious hydrometer readings

A. While a beer hydrometer can be used to monitor the progress of fermentation; most home brewers have definite problems in getting accurate readings. Where there is any doubt as to which reading is the correct one, take the lowest reading or in other words, that closest to 1,000 as the accurate one. Before taking a reading, spin the hydrometer a couple of times in the liquid to remove bubbles.

Tip: - A Refractometer is easier to use, faster, is more accurate, and uses much less beer (two to three drops) per test.

Q. Bubbling won't stop

A. Slow air-lock bubbling can continue for an extended period of time in the perfectly sealed fermenter. Ascertain the correct time at which to bottle by using your hydrometer or Refractometer. Don't use the air-lock to determine when to do anything! Home brewers all too often leave the brew in the fermenter too long because of slow air-lock bubbling or bottle too early and over gas – even explode beers. Brews spoil fairly quickly if not bottled at the correct time.

Q. What's with the Sediment in the bottle?

A. As commercial beer contains no sediment in the bottles (ok some do), some home brewers become obsessed with achieving the same with their brews. It is impossible unless you keg and filter it! There is always a small final sediment in the bottles of home brewed (bottle conditioned) beer. If the beer is made correctly, the sediment should be similar to a coat of paint on the bottom of each bottle. The obsessed brewers leave the beer in the fermenter for weeks after fermentation only to find it has spoiled. They try to filter the beer, only to oxidise (allowed to be affected by oxygen) or contaminate the beer, thus ruining it. The answer is compromise and understanding. Allowing your brew short but sufficient time to settle before bottling and the use of finings is the only way to reduce sediment in beer without correct filtering. Don't forget we stock beer filters...

Q. Which sugar for the bottles?

A. Carbonation drops make this task easy; two per tallie, 1 per stubby. Alternatives are white sugar, Dextrose, (Better than sugar) Light dry malt (best).

Q. My bottles are exploding

A. This condition can only be caused by excess sugars in the bottles after capping. You can create excess sugars in two ways.

1. You may have bottled too early, when there were still unfermented sugars in the brew. This can often happen when the actual brewing is during winter. In cold conditions, a brew can ferment reasonably while fermentation is active (generating a bit of heat) but

can stop prematurely when the activity lessens. The remaining unfermented sugars will in time over gas the bottles. Monitor your fermentation temperature and determine when to bottle using your hydrometer (3 days constant) not airlock activity.

2. You may have added too much sugar to each bottle. Some people are of the opinion that if one teaspoon to each bottle makes a good brew then three teaspoonfuls will make it even better – NOT SO. Crazily, some still believe that the alcohol content of the finished beer depends on the sugar you add to each bottle! You may have primed a bottle twice with sugar. It's easy to do – If the odd bottle is inconsistent with the rest of the batch, you have doubled up. Use carbonation drops they are a measured dose and easy to count, if you lose track, most of us can count to 2. ☺

Some rare exceptions are caused by brettanomyces yeast or wild yeast infection, causing slow degradation of dextrins usually in high gravity dark beers and lambics.

Q. Over-gassed beer

A. Same as above but not as bad. Certain bottles or even whole batches of your beer may at times become over gassed, while not necessarily exploding. This condition is also caused by one of the above mentioned reasons. Bottles that almost fill the glass or jug with froth may be brought under control by chilling the bottles to close to freezing point for a few days prior to opening.

Q. Flat beer – little or no gassing

A. True flat beer is only caused by the following factors:

1. insufficient or no priming sugar in bottles when bottling
2. bottles not sealed properly. The capper bell may have stretched- it happens!
3. very cold maturing conditions (except true lagers)

Q. Poor head

A. If a beer refuses to form and then hold a good head; chances are the beer is either under-gassed or insufficiently matured. Poor head is also common with cheaper beer kits due to lack of malt in the mix, don't be a tight wad, get a better beer kit, we are talking about a few cents a glass here not sheep stations. If the bottle has not been refrigerated for at least 3 days prior to opening, gas will not have had time to absorb into it and escapes with the cap. Use "Big head liquid" if the problem persists. Three weeks is the minimum time it takes for the secondary bottle fermentation to take place. It takes a good deal longer to bottle condition beer. I never open any bottle conditioned beers for at least 12 weeks, and they are better at 12–18 months. Most home brewers drink their beers long before they are at their best. Try putting a few aside from each batch to age longer and you will soon have a stock of well aged beer. Once you see the difference you will want to age all of your beers. Glass cleaning also has a lot to do here, don't use soapy detergents on glasses - it kills head if not properly rinsed. Use your brewing detergent, scrub thoroughly and rinse with boiling water, don't dry unless you have a clean glass cloth, air dry on a rack or put them straight in the fridge. Nucleated glasses are a big help.

Q. Off flavours

A. Most often caused by too high a fermentation temperature. Yeast prefers a temperature much higher than the temperature at which good beer is made – You can choose whether to make the yeast happy or make good brews – I go for the brew every time, I drink beer

not yeast! Some off flavours in a finished beer are the result of contamination. This could be caused by the water you've used in the brew, poor hygiene or exposure to contaminants late in fermentation, or during bottling; If only the odd bottle tastes "off" then the problem is with your bottle hygiene or splashing during bottling. Should the whole batch taste crook, pay more attention to your method of brewing (temperature) and sanitizing next time. For instance, a common contamination often comes at the end of fermentation. That is if you were to open your drum very late, then reseal it and leave for a few days prior to bottling, chances are there will be a white film on the surface of the brew when you go to bottle. This form of contamination can also appear in the bottles. It won't do much for the flavour of the beer. Bottle as soon as possible after fermentation finishes. Bottle in brown glass or PET bottles, Light can affect beer in hours (even minutes) the result is called "skunked "beer because it tastes so bad A.K.A. Light struck beer. It is caused by certain wavelengths of light interacting with compounds from hops. Because of this reason don't bottle in direct sunlight!

Q. I have Hazy beer

A. Most home brews will take a week or so to clear after bottling, but should then settle out (except wheat beers). If your beer refuses to clear after a reasonable time, ten to one it's affected by one of the following problems:

1. Oxidization – This is caused by excessive exposure to oxygen during bottling.

2. Starch haze - This means a hazy state created by the addition of starchy additives to the brew.

3. Chill haze – Occasionally when a beer is chilled. It may become slightly hazy. This condition can occur with any beer. It is caused by a slightly higher than normal protein content in the basic ingredients. The beer is perfectly all right. There is no effect on taste, as it is a natural occurrence, save these ones for black outs. By the way, haze is quite common and natural in wheat beers. Polyclar VT added to brews prior to filtering will remove hazes from beer!

Q. Diet and diabetic beer

A. Both 'diet' and 'diabetic' beer are really the same and should not be categorised with low alcohol beers. Low alcohol beers are basically normal beers with the alcohol percentage reduced. In home brewing we assume that the fermentation (both primary and secondary) ferments all the sugars available; however, the yeast cells usually leave a small percentage just as you don't eat all the crumbs on your plate. Home brewed beers will always contain some minute quantities of unfermented sugars: however, many diabetics tell me that well matured home brews give than fewer problems than normal (non-diabetic) commercial beers. Try adding Dry Enzymes to reduce carbs.