

Brewing In Summer - How To Beat The Heat

Summer can be the most difficult time of the year to brew beer. The high temperatures for many days on end make it extremely difficult to produce good beer. This is a real nuisance as it is the time of the year when most of us like to drink the stuff. Sure you can brew in the hot weather but you will never produce anything better than mediocre beer unless you take steps to reduce the temperature at which you brew.

I realise that this will contradict what is written in the instructions of most brewing kits (especially Australian ones) where the suggested temperature is often quoted as being in the mid twenties. A maximum of 32 degrees is listed as the upper limit in one well known brewing kit! The yeast will have no difficulty working at these temperatures. In fact it will flourish, fermenting out the beer in rapidfire time.

Unfortunately, the object of brewing beer is not to ferment out the beer as fast as you can, but to produce beer as good as you possibly can with the equipment and ingredients you have at hand, and to do this you must ferment at lower temperatures.

"Why are lower temperatures better than higher temperatures?"

When yeast is asked to work on brewing wort at higher temperatures (above 25 degrees) it will produce a large amount of fermentation by-products, such as esters and fusel alcohols. These by-products are responsible for all sorts of weird flavours in beer, flavours which are not associated with good beer. Esters produce fruity type flavours in beer, which in low levels can have a positive effect on your beer but start fermenting above 25 degrees and you will finish up with a beer that tastes like tropical fruit punch. This particular problem is most obvious when using a lot of malt and pure brewing yeasts.

The most common problem associated from brewing at high temperatures with kits is the dreaded "Yeast Bite". This is particularly nasty and once you have encountered it in a brew you won't forget it in a hurry. It leaves a foul harsh yeasty bitterness in the beer making it undrinkable. This is a problem we see regularly in the shop during the warmer months of the year, and is one which can easily be avoided with a little forethought and planning.

"How do I stop the brew from getting too warm?"

There are several ways to do this, and these are listed below. No doubt you will have some ideas of your own. All of these methods have been tried and tested by ourselves or our customers.

1. Use only enough boiling water to mix all your ingredients, a maximum of 2 litres in summer, less if possible. By keeping the initial temperature of the brew down you stand a much better chance of maintaining a reasonable temperature. Aim for a pitching temperature of 22 degrees or below. Another thing to consider is that the while the brew is fermenting it will tend to maintain the temperature it was at when fermentation began. This will occur even when the air temperature around it is as much as 4 to 6 degrees lower. For example if the brew starts to ferment at 28 degrees it will tend to stay around this figure even if the air is 22 to 24 degrees.
2. Don't brew if you know it is going to be extremely hot in the next few days. In Canberra the weather seems to come in cycles of 4 to 6 days during the summer, so keep an eye on the weather forecast and brew during the cooler times.

3. Brew in the coolest part of the house or garage.
4. If you are having difficulty keeping the brew cool, try wrapping a wet heavy cover around your fermenter. Towels or Potato and briquette bags are ideal. All you will need to do is keep the cover wet. As the water evaporates it cools down the fermenter. If you have ever had an alcohol swab applied on your arm you will now how cold it feels. This is because alcohol evaporates very quickly.
5. The method I find easiest to use is to place the whole fermenter into a trough of water. This is very effective, especially if the brew has overheated and you need to cool it quickly. To maintain an even temperature all you need to do is change the water every 12 hours or so. Adding ice to the water can make this method even more effective. Put an icecream container of water in your freezer for 24 hours and add a new one to the water in the trough every day.
6. Buy a second hand refrigerator and a new thermostat, such as a Tempmate or Fridgemate. These do not need to be wired into the fridge. The fridge three pin plug goes into the lead on the thermostat and the thermostat plugs into your 240volt power point. You can then set whatever temperature is required for that particular style of beer. This is, by far, the best option albeit the most expensive one. However, the control you will have over the fermentation temperatures is much more precise than the other methods.

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