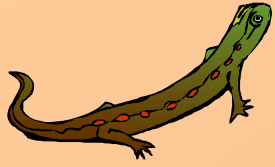


The Newton Road Brewery



After the boil the *wort* is allowed to rest for a few minutes, before the *crash cooler* is inserted (more plumbing).

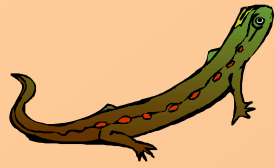


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An alternative to the *crash cooling coil* is the *counter flow cooler*, where hot *wort* goes one way and *cold water* goes the other way.

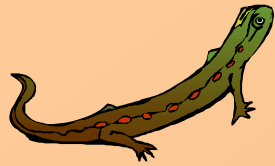
Gravity will work but a pump makes it a lot simpler.



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Once cooled to 25 degrees centigrade the *wort* is run off into the *fermenting vessel*. The *height drop* is deliberate as to *propagate* and perform its task *yeast* needs *oxygen*. Aeration is avoided during the early stages of brewing as *oxidation* of the *hot wort* is undesirable - it can produce 'off' flavours.



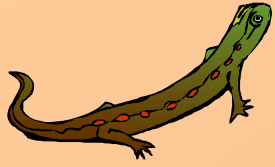
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This shows *aeration* of the *wort* in progress, with the finished result shown below.

Just the first of many good heads this brew will produce!!





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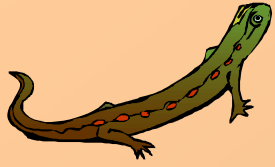


Once the *sweet wort* has been run off, the *spent hops* remain in the *copper*.



At this point a *hydrometer* is sterilised ready to measure the *original gravity (O.G.)* of the *wort*.

In this case it reads **1039** which translates into about 3.5% alcohol, a nice summer beer.



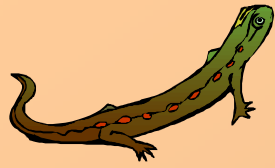
The Newton Road Brewery



Next the *yeast* needs to be added. I use *Safale 04*, a dried yeast powder that produces excellent results. It came recommended to me, and I'd recommend it!

The yeast is *pitched* on to the surface of the *wort*. I do not bother re-hydrating the yeast and so far, so good.

Fermentation usually starts within 24 hours at 20 C.



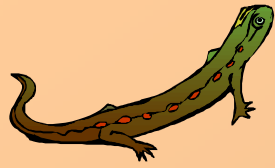
The Newton Road Brewery



To ensure a reliable *fermentation* in winter, a heated box is used controlled by a thermostat.

This needed contacts adding to make it a heating unit, not a cooling unit! White 'thing' is a thermometer!

The lid is closed and away it goes for 3-4 days!

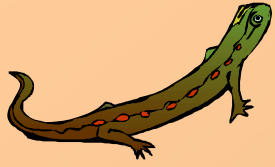


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After five or six days *fermentation* will have ceased and the yeast *flocculated* (clumped) and settled out. Safale 04 is particularly good at this, leaving an almost clear beer.

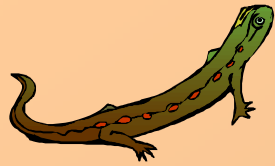
Once the beer has been syphoned into a barrel (*racked to secondary*), all that remains is raw marmite, ie the yeast! Finings are often added at this point to help the beer clear '*bright*'. I use gelatine.



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All that remains after brewing is to clean up. Here the spent grains and hops are added to my compost heap, where, in time, they will be used to provide nutrients and organic material to the hop plants shown at the beginning of the show.



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The significance of the ***MASH TEMPERATURE:***

The **fermentability** of the **wort** can be controlled by temperature as follows :

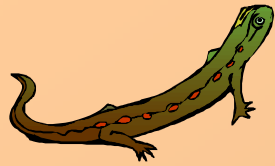
High fermentability 61 to 64 deg. C pH 4.2 to 5.1 17%
dextrins (dry)

"Typical" ferment. 64 to 67 deg. C pH 5.1 to 5.4 21% dextrins
(Both)

Low fermentability 67 to 69 deg. C pH 5.4 to 5.7 25% dextrins
(sweet).

The CAMRA book on India Pale Ale (Recipe 23) suggests high mashing temperature 68 deg .

This made the shelf life longer than the voyage to India !



The Newton Road Brewery



What now???

UK-Homebrew is a mailing list where all manner of brew related questions are asked and answered on a regular basis.

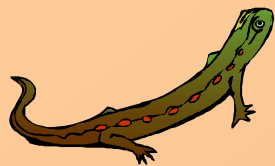
<http://www.smartgroups.com/groups/uk-homebrew>

Cheers! Wine and Beer Homebrew Shop. 94, Priory Road, Cheam. **Phone Richard at Cheers! on 020 8644 0934**

The Internet has a lot of information about everything brewing related, including some 'build your own' brewery sites. There are a number of software programs to help you with your brewing.

Try <http://www.howtobrew.com> - version one is a free download!

I like (and use) **BEERSMITH** (£10 with a 21 day free trial) but there is also **Promash** and **Strangebrew**. In fact a search on Google for brewing software produced all manner of stuff!



The Newton Road Brewery



Practical Mashing

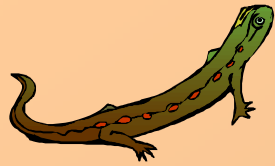
SUNDAY 28 March 9.45 TO 3.30

AT THE SCOUT HUT,

Benhilton Gardens, Sutton.

- LEARN FULL MASH BREWING
- THE OLD TRADITIONAL METHOD
- USE ONLY MALT BARLEY GRAIN, HOPS AND YEAST
- EXCELLENT BUFFET LUNCH PROVIDED
- PLENTY OF SAMPLES OF FULL MASH BEER
- FULL STUDY NOTES TO TAKE HOME
- ONGOING HELP AND SUPPORT FOR NEW MASHERS
- COURSE FEE £20

TO JOIN PHONE RICHARD 020 8644 0934



The Newton Road Brewery



Why Newton Road?????

Well, there is a phrase “As pi**ed as a Newt”

and.....

There is a legend that beers taste better when a **dead rat** is found in the fermentation vat!

The rest is simple, Newt and Rodent,
Newtan Rode, Newton Road Brewery, easy!

Cheers!!