

BREWING RECORD

Type of product:
Date of brewing:
Volume of water added:
Type of sugars added:
Amount of sugars added:
Can, best before date (on can):
Yeast, code on sachet:
Temperature of wort before adding yeast: °C
Recommended 21°C-27°C (70°F-80°F)
Date of bottling:
Hydrometer readings: Use of a hydrometer is the most reliable method of checking the progress of your brew.
Original gravity (before adding yeast):
Final gravity (before bottling):
Approx percentage alcohol (see formula on page 3):
If further advice required;
Ring 1300 654 455,
E-mail customerservice@coopers.com.au, or
write to Home-Brew Department,
Coopers Brewery Limited,
P.O. Box 46, Regency Park, S.A. 5942
Revised Instructions
25.12.05

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WELCOME

to the "Thomas Coopers Premium Selection" designed for the home brewer who wants to do more than add white sugar. Choose from Australian Bitter, Heritage Lager, Traditional Draught or Sparkling Ale. We recommend the "Thomas Coopers Premium Selection" concentrates to be combined with 1.5kg Coopers Light Malt Extract.

Requirements: Coopers Wort Concentrate, Yeast Sachet (under lid) and Coopers Light Malt Extract (other recommended fermentable sugars may be used). In addition to 1.5kg Coopers Light Extract, the Sparkling Ale recipe requires 500g Light Dry Malt & 300g Dextrose for optimum results.

Equipment: Most equipment needed is supplied in the COOPERS MICRO-BREW KIT (including a detailed instruction booklet). Your local home brew retailer can also advise on equipment.

Cleaning: A major cause of failure when brewing is infection due to poor cleaning or sanitising. All equipment that will come in contact with your brew must firstly be cleaned then sanitised.

Avoid any forms of detergent or soap unless specifically made for brewing.

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To clean:

- Soak equipment in water until caked on residue is softened.
- Remove residue with a soft cloth and rinse thoroughly
- Pay attention to 'hard to get at' areas such as the tap thread. **NOTE: Do not use any cleaning aid that may scratch the plastic.**

To sanitise:

- Place 1½ cup of unscented household bleach in fermenter.
- Fill with cool water.
- Place all equipment in fermenter and let soak for at least ½ hour.
- Rinse with hot water to remove all traces of chlorine smell.
- The fermenter lid need only be cleaned then rinsed with hot water.

DETERMINING ALCOHOL CONTENT

Your hydrometer is used to measure the specific gravity (SG) or density with respect to water.

To calculate the alcohol content of your brew:

- (a) Measure the specific gravity of the wort before adding the yeast - Original Gravity (OG). (b) Measure the specific gravity upon completion of fermentation - Final Gravity (FG). Typical hydrometer readings 1.042 (OG) OR 1.006 (FG). (c) Remove the decimal points (1.042 is expressed as one thousand and forty two).

- (d) Formula: $\frac{OG-FG}{7.46} + 0.5 = \text{approx\% alcohol by volume (ABV)}$.

Note: 0.5% is added to reflect the addition of priming sugar for secondary fermentation

$$\text{eg. } \frac{1042-1006}{7.46} + 0.5 = 5.3\% \text{ ABV}$$

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1. MIX

- (a) Dissolve contents of can and other fermentable sugars with 2 litres of boiling water (4 litres of hot tap water may be used).
- (b) Top up fermenter with cold water to the 20 litre mark, mix thoroughly with plastic spoon and check temperature for ideally 21°C-27°C (70°F-80°F).
- (c) Top up to 23 litres with hot/cold water (even ice) in order to achieve approx 21°C-27°C.
- (d) Take S.G. reading and add yeast (see determining alcohol content).

Important: If the wort is not at ideal temperature but within the range of 18°C-32°C (64°F-90°F) add the yeast.

At this point the wort is vulnerable and prompt addition of yeast is more important than ideal temperature.

If you are unsure of the quantities of hot and cold water required try filling the fermenter with hot and cold water minus the ingredients to get a feel for what is needed to achieve approx 21°C-27°C.

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2. BREW

The two types of fermentation are open (brewed in an open vessel covered with a clean cloth) and closed (a fitted lid plus airlock or cling wrap with a pin hole). Both methods will ferment effectively providing the wort remains within the temperature range 18°C-32°C.

You can make quality beer with open fermentation. However, preference is given to the closed fermentation method because the brew is protected in a sealed vessel and the timing for bottling off is not as critical.

Temperature Control

The yeast supplied with the "Thomas Coopers Premium Selection" can ferment as low as 13°C and survive as high as 40°C! However, as the brew temperature deviates further from 21°C-27°C the likelihood of spoilage is increased. Some techniques for controlling temperature are: hot box (box with a low wattage light globe attached inside), heat pad, heat belt, immersion heater, insulate fermenter, place fermenter near a storage hot water system, place in a disused fridge, etc. Ask your local home brew retailer.

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3. BOTTLE

After about 6 days at 27°C or 8 days at 21°C (higher temperatures shorten the ferment time) check with a hydrometer that the brew has reached its FG by ensuring the S.G. readings over two days are steady. Ensure bottles are clean and sanitised. Prime bottles at a rate of 8g of sugar per litre. One rounded teaspoon measure of sugar is approx 6g (enough for a 740-750ml bottle).

WARNING - GLASS BOTTLES MAY EXPLODE IF OVER PRIMED OR IF FERMENTATION IS INCOMPLETE.

Fill bottles, seal and invert several times. Store bottles upright at a temperature above 18°C for at least 7 days to enable secondary fermentation (carbonation) to occur.

Note: Storing (conditioning) your beer beyond two weeks and up to at least three months should see the flavour improve, the bubbles reduce in size and the yeast deposit become more compact.

4. ENJOY

Chill beer and serve. To serve, open the bottle and decant into a glass or jug taking care not to disturb the yeast deposit. Sparkling Ale bottles may be rotated gently before opening to mix the yeast deposit through the beer producing a cloudy appearance unique to the famous bottle conditioned ales from Coopers Brewery.

WARNING: Excise laws may be contravened if this kit is used to produce a product for sale or other commercial purposes.

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COMMON FAULTS:

- 1. Beer is too gassy** - Too much priming sugar added when bottling, the brew has become infected or more commonly, fermentation was not complete. Maintain the brew above 18°C. Use a hydrometer to check that the brew has fermented out (see page 6).
- 2. Lack of head** - Too much water added, too much sucrose / dextrose added (no more than 1 kg per 23 litre brew) or residual fats / detergent in glassware.
- 3. White skin on top of fermented beer or sour taste (infection)** - Equipment has not been cleaned and sanitised properly (see page 3), wort has been exposed to air for too long before yeast is added or fermented beer has been allowed to stand too long before bottling.
- 4. Unpleasant aroma** - Beer may have become infected (see above) or brewed at a temperature too high for the yeast to perform properly (see page 5). It is common for lager yeasts to produce a smell like eggs when fermenting (this should disappear as the bottles condition).

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