# **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 (packet):

Temperature of wort before adding yeast:

Recommended 21°C-27°C (70°F-80°F), see page 7 for Pilsener

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 08.11.04

## 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 of 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/kegging is obje of (sol gava) refinot as critical. How soull ES of our de

# Temperature Control

Whilst the enclosed yeast will ferment effectively at 18°C-32°C, we recommend a brew temperature of 21°C-27°C for optimum results (see page 7 for Pilsener). Some techniques for controlling temperature are; hot box (box with a low wattage light globe attached inside), heat pad, heat belt, immersion heater, place fermenter near a storage hot water system, insulate fermenter, place in a disused fridge, drape wet towels over fermenter, etc. Ask your local home brew retailer.

# WELCOME

to the "Thomas Coopers Brewmaster Selection" developed for home brewers who are serious about their craft. Choose from India Pale Ale (IPA), Irish Stout, Pilsener and Wheat Beer. By carefully following the instructions we are confident that you will produce a quality beer. We thank you for using our products and hope you continue to enjoy the brewing experience.

### Recommended Ingredients

Coopers Wort Concentrate, Yeast Sachet, 500g Coopers Light Dry Malt (other recommended dry malt extract may be used) & 300a Dextrose/Sugar.

## 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.

> Brewing notes for Pilsener Refer to Page 7 for details.

### Cleaning

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.

# 3. BOTTLE

After about 6 days at 21°C or 4 days at 27°C (higher temperatures shorten ferment time) check with a hydrometer that the brew has reached 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 (do not invert if using carbonation drops). 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 should see flavour/aroma improve, bubbles reduce in size, head retention improve and yeast deposit become more compact. Try putting a couple of bottles from each brew aside to taste in a year or two.

### 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. Cloudy beer enthusiasts may choose to rotate the bottle gently before opening to mix the yeast deposit through the beer. WARNING - Excise laws may be contravened if this kit is used to produce a product for sale or other commercial purposes.

 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 1/2 cup of unscented household bleach in fermenter. (active ingredient is sodium hypochlorite, as in baby bottle sterilant) • Fill with cool water. • Place all equipment in fermenter and let soak for at

least 1/2 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 APPROXIMATE 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: Measure the specific gravity of the wort before adding the yeast - Original Gravity (OG) Measure the specific gravity upon completion of fermentation - Final Gravity (FG) Typical hydrometer readings 1.042 (OG) and 1.006 (FG). Remove the decimal points (1.042 is expressed as one thousand and forty two).

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

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

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

## **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 (page 6). 2. Lack of head — Too much water added 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 (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 be infected (see above) or fermented at a temperature too high for the yeast to perform properly (page 5).

## BREWING NOTES FOR PILSENER

Brewmaster Pilsener contains yeast that behaves differently to the normal Coopers Yeast. The brewer should note the following: Avoid excess use of plain white sugar/dextrose. See recommended ingredients on page 2. Preferred brewing temperature is at the low end of the recommended range (ie. 21°C). Pilsener yeast can ferment as low as 13°C. Lower ferment temperatures extend the fermentation period. Ensure FG has been achieved before bottling. It is common for lager yeast to produce a smell like eggs when fermenting, this should dissipate as the beer conditions in the bottle.

Dissolve contents of can and other fermentable sugars with 2 litres of boiling water (hot tap water may be used).

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),

see page 7 for Pilsener.

Top up to 23 litres with hot/cold water (even ice) in order to achieve approx 21°C-27°C. Take S.G. reading and add yeast (see determining

approximate 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.

