

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.

7

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 not as critical.

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.

5



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.

6

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US/Canada only 1 888 588 9262

Australia only 1 800 672 299

BREWING RECORD

Type of product: **IPA**
 Date of brewing: **19-3-8 10°C**
 Volume of water added: **10L**
 Type of sugars added: **1kg**
 Amount of sugars added: **19-1-8**
 Can best before date (on can): **21306 IPA 16°C**
 Yeast code (packet): **21306 IPA 16°C**
 Temperature of wort before adding yeast:
 Recommended 21°C-27°C (70°F-80°F), see page 7 for Pilsener
 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): **1.038**
 Final gravity (before bottling): **1.004**
 Approx percentage alcohol (see formula on page 3): **5.06**

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

1

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

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

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

3

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) & 300g
 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.

2

1. MIX

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.

4

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 brochure/application will be sent to you.

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 PO BOX 2332, REGENCY PARK
 SA 5942
 AUSTRALIA**

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 sugar added (no more than 1kg 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).

7

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

One of the major causes of home brewing failure is poor 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. 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 disused fridge, drape wet towels over fermenter, etc.

Ask your local home brew retailer.

5



3. BOTTLE

After about 4 days at 27° or 6 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 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 becomes 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. 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.

6

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Australia only 1 800 672 299

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:
 Recommended 21°C–27°C (70°F–80°F) °C
 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
 25.04.05
 96499

1

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 1/2 cup of unscented household bleach in fermenter.
- 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 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: $\frac{OG-FG}{7.46} \times 0.5 = \text{approx\% alcohol by volume (ABV)}$

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

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

3

WELCOME

to the Coopers "Original Series" offering a beer style for every palate. Choose from **Lager, Draught, Real Ale, Bitter, Dark Ale and Stout**. 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.

Requirements: Coopers Wort Concentrate, Yeast Sachet & 1kg White Sugar (other recommended fermentable sugars may be used instead).

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

2

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 21°C–27°C.

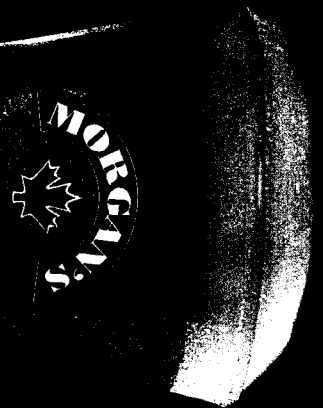
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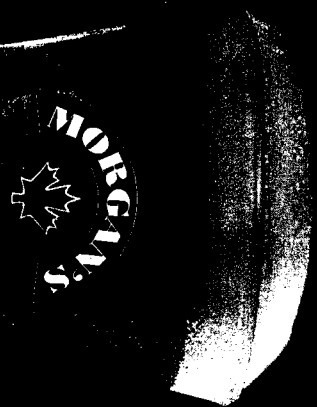
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How to Brew

Suitable for one or two stage fermentation

1. Mixing. Pour 4 litres of hot water into sterilized brewing bucket. Add contents of this can and 1kg (2.2lbs) of corn sugar (dextrose) or one litre (1.35kg) high malt glucose or light malt extract then stir to fully dissolve. Make up to 23 litres (5 gallons) with cold water. When temperature is between 22 - 30°C (71-86°F) add yeast and actively stir for 30 seconds.
2. Fermenting. Loosely cover this primary fermenter with the bucket lid or clean plastic sheeting. Leave to ferment at a constant temperature between 22-30°C (71-86°F). When the thick froth begins to dissipate, usually after 3-4 days, rack (siphon) the beer into a clean sterilized 23 litre (5 gallon) secondary fermenter. Seal this fermenter and make airtight with an airlock. Fermentation will cease in a few days. Allow up to a week to clear before bottling.
3. Bottling. This Morgan's home brew kit makes 66 x 12oz (341ml) bottles of beer. Use sound crown seal bottles where available. You may also use amber plastic P.E.T. reusable bottles which are available at most brew stores in 500ml and 1 litre sizes. Warning – be sure fermentation has finished before bottling otherwise over gassed bottles may explode. Add 1/2 teaspoon (3g) of normal sugar to each 341ml bottle, 2/3 teaspoon (4g) to each 500ml bottle or 1/2 tablespoon (8g) to each 1 litre bottle. Gently siphon beer into bottles to the normal level leaving a 3cm head space. Cap and seal bottles, invert several times to dissolve priming sugar.
4. Maturing. Store bottles upright at a temperature between 22-30°C (71-86°F) for 5 days to allow beer to carbonate. Allow a further 10 days at room temperature to fully mature. The finished beer will continue to improve with further ageing.

Méthode de Brassage

Convient à la fermentation en une ou deux étapes.

1. Le mélange: Versez 4 litre d'eau chaude dans la cuve préalablement nettoyée et stérilisée. Ajoutez le contenu de la boîte et 1Kg. (2,2lbs) de sucre de maïs (dextrose) ou un litre (1.35Kg.) de sirop de glucose ou encore de sirop de malt léger et brassiez jusqu'à dissolution complète. Ajoutez ensuite de l'eau froide jusqu'à la marque de 23 litres. Quand la température du mout est entre 22° r 30°C (71° et 86°F) ajoutez la levure et agitez pendant 30 secondes.
2. La fermentation: Recouvrir la cuve de fermentation soit avec le couvercle que vous déposez sans fermer hermétiquement ou encore à l'aide d'une feuille de plastique propre. Laisser reposer et fermenter à une température variant entre 22°C à 30°C. Lorsque la mousse de fermentation se sera dissipée (habituellement au bout de 3 à 4 jours) transvider la bière dans une tourie propre de 23 litres (5 gallons). Fermer ensuite la tourie à l'aide d'un caoutchouc et d'une bonde à moitié remplie de solution stérile. La fermentation cessera au bout de quelques jours. Attendre au moins une semaine pour permettre la clarification avant de passer à l'étape de l'embouteillage.
3. L'embouteillage: Cet ensemble de fabrication de bière maison Morgan's donne 66 bouteilles de 341ml. chacune. Utiliser des bouchons couronnes conçus pour la bière. Vous pouvez aussi utiliser des bouteilles de plastique P.E.T. (format de 500ml ou 1 litre) que vous trouverez aisément chez tout bon détaillant. ATTENTION soyez certain que la fermentation est terminée avant l'embouteillage. Ceci vous permettra d'éviter les risques d'éclatement des bouteilles. Ajoute 1/2 c. à thé (3gr) de sucre régulier dans chaque bouteille de 341ml. ou 2/3c. à thé (4gr) dans les bouteilles de 500ml. ou 1/2c. à table (8gr) dans les bouteilles de 1 litre. Siphonnez lentement la bière dans chaque bouteille à un niveau normal en laissant environ 3cm d'espace libre. Capsulez la bouteille, agitez plusieurs fois pour dissoudre le sucre dans la bouteille.
4. Maturation: Entreposez les bouteilles debout à une température entre 22°C et 30°F pendant 5 jours pour permettre la carbonation. Attendre 10 jours supplémentaires à la température ambiante pour atteindre la pleine maturation. La bière s'affinera si vous lui permettez un vieillissement plus prolongé.