## **BREWING PREPARATION:**

Cleaning and sterilising is a very important factor in successful brewing. It helps to avoid infections which can lead to poor tasting beer. We recommend using Washing and Sterilising Powder (supplied) to sterilise your fermenter and all separate components that will come in to contact with the brew, such as your stirring spoon, bottling device, etc.

Mix steriliser in your fermenter using a total of 5 litres for this stage. Soak all the equipment (including the inside of the lid) in the solution for a minimum of 30 minutes. Swirl the solution around to make sure the whole inside comes into contact with the solution and also run a little through the fermenter tap. Thoroughly rinse all equipment with lots of fresh water.

## **BREWING INSTRUCTIONS:**

To make beer there are four essential ingredients required: water, fermentable sugars (traditionally extracted from malted barley), hops and yeast. The brewing kits provide the malted extract and hops already processed and combined according to our brewers recipes. The yeast is provided under the lid of the brewing kit. It requires only the water and some extra brewing sugar (supplied) to be added by you.

- 1. Take brewing kit; remove the label and plastic cap. Find yeast enclosed under the cap and put aside for the moment.
- 2. Stand can in hot water for 10 minutes to soften contents.
- 3. Dissolve contents of can and 1kg of brewing sugar in 2 litres of hot water in your fermenter. Then add 17 litres of cold water. Mix thoroughly.
- 4. Add 2.5 litres of either hot or cold water so as to give a final temperature of approximately 18 28°C, to avoid damaging the yeast.
- 5. Sprinkle yeast from the sachet over the liquid surface and affix lid and airlock (half fill the airlock with water).
- 6. Airlock bubbling shows fermentation has started (6-12 hours after adding yeast). Keep brew at between 18 28°C until specific gravity reaches 1006 (in approximately 4-7 days). At this time the airlock will have stopped bubbling.

## **FERMENTATION MONITORING:**

You can monitor how your brew is coming along using your thermometer and hydrometer. Do not remove the fermenter lid during fermentation as this may introduce an infection.

Watch the thermometer on the side of the fermenter and ensure the temperature remains between 18 and 28°C. If your brew drops under 18°C, then fermentation may slow down or even stop. In winter you may need to use a heater pad or heater belt to keep a constant temperature above 18°C.

The hydrometer measures the density (specific gravity) of liquids. For brewing purposes it measures the amount of sugars (malt and dextrose) in the brew. The original gravity of the brew will be approx.1035-1040. As fermentation proceeds the sugars are converted into alcohol and carbon dioxide (CO2). The CO2 can be observed bubbling through the airlock during fermentation. When fermentation is complete a standard can of concentrate and 1kg of dextrose brewing sugar will usually finish at a specific gravity of 1006. If using a liquid brewing sugar or malt extract instead of sugar, then the reading is usually higher at 1012. To take a reading, use the tap on the fermenter and fill the test jar approximately 3/4 full until the hydrometer floats. Give the hydrometer a quick spin to remove any gas bubbles as this will interfere with the reading. Where the beer cuts across the hydrometer, is where you get the reading on the scale of the hydrometer. Do not put the beer back in the fermenter. If using a clearing agent (finings), add the clearing agent just before fermentation stops (at approx 1010 specific gravity). When the hydrometer reading remains constant for 24 hours the brew is ready for bottling.

## **BOTTLING AND CONDITIONING:**

- 1. Once fermentation is complete you are ready for bottling and bottle conditioning the beer. Sterilise 30 x 750ml bottles, crown seals and all bottling equipment. To do this, wash away any visible dirt with a bottle brush. Then, mix Sterilising Powder with warm water, and soak the bottles for 30 minutes. You don't need to fill the bottles, 1/4 or 1/2 fill is fine but you will need to swirl it around so that the whole inside surface has been covered. After soaking, rinse thoroughly with fresh water.
- 2. Add one teaspoon (slightly heaped) of normal sugar to the bottom of each bottle. If using stubbies, halve the amount of sugar in each bottle.
- 3. Remove the airlock before opening the tap to prevent water from the airlock being drawn into your brew.
- 4. Fit the Brewers Bottling Valve to the tap. Fill each bottle to within 40mm from the top by lifting the bottle up so the valve presses on the base of the bottle and opens, allowing the beer to flow.
- 5. Cap each bottle using crown seals and a capper.
- 6. Gently tip each bottle 4 times to dissolve the sugar.
- 7. Date and label each bottle.
- 8. Store the bottles upright in a warm place (approx 18 25°C) for five days to allow for secondary fermentation (bottle conditioning) which charges the beer with CO2 bubbles. After the 5 day period, move your bottles to a cooler place (approx 8 12°C) and leave for a further week for the beer flavours to mature before consuming.