RECOMMENDATIONS AND TIPS FOR SUCCESSFUL BREWING

ESSENTIAL EQUIPMENT

1) **Primary Fermentor:** Food grade plastic container with 36 – 45 litre capacity (8 – 10 Imp. Gal). Best complete with a lid, although a plastic sheet tied down is adequate.

2) **Secondary Carboy:** A 23 litre (5 Imp. Gal., 6 U.S. Gal.) glass or food grade plastic carboy. *Selection Spéciale* products require an 11.5 litre (2.6 Imp. Gal., 3 U.S. Gal.) size carboy.

3) **Airlock & Bung:** This attachment is used with the secondary carboy. This valve is designed to allow gases to escape while also preventing air and airborne contaminants from coming in contact with the wine. ALWAYS be sure that the water level in the airlock is half-full and properly maintained during use.

4) **Hydrometer & Test Vial:** This instrument will measure the Specific Gravity (S.G.) of wine or beer in order to give accurate readings on sugar levels, alcohol content, and the progress of fermentation. To use, immerse the hydrometer into a vial of liquid. The hydrometer should be free floating. The point at which the liquid intersects the hydrometer will be your S.G. reading (see diagram).

To check to see if your hydrometer is working properly, suspend your hydrometer in 60°F (15°C) water. Your S.G. reading should be 1.000 +/- 0.002.

5) **Sanitizing Agent:** A chlorine cleaning solution used to sanitize all equipment. This product is available at your local home brew retailer. Follow directions on sanitizing package on how to prepare cleaning solution. Instruments such as your wine thief, hydrometer, mixing utensils, and thermometer are constantly used – keep these soaking in solution until you need them and remember to rinse them thoroughly before use.

6) **Mixing Utensil:** A long handled spoon or rod required for mixing of ingredients in your fermentation vessels.

7) **Wine Thief:** A hollow glass or food grade plastic tube that allows you to extract samples without pouring or syphoning.

8) **Dairy Thermometer:** A floating thermometer used to keep track of the temperature during fermentation.

9) **Syphoning Hose:** Six feet (1.8 m) of food grade tubing attached to a rigid syphoning rod used for “racking”. Racking allows liquid transfer from one container to another without the transfer of sediment.

IMPORTANT TIPS

1) **Marking the volume on your Primary Fermentor:** Fill your 23 litre glass or plastic secondary carboy (11.5 litre if using *Selection Spéciale* wine varieties) with water. Empty this volume into your Primary Fermentor and mark off the water level.

2) **Temperature Factor:** It is important to keep the fermentation temperature constant (70 – 75°F). Yeast cells are sensitive to temperature. (see diagram)

3) **Sanitizing Your Equipment:** Make sure all utensils and equipment are clean before use. Use a chlorine cleaning agent to sanitize your equipment. We suggest preparing a soaking tub solution made from your sanitizing agent. Instruments such as your wine thief, hydrometer, mixing utensils, and thermometer are constantly used – keep these soaking in solution until you need them and remember to rinse them thoroughly before use.

4) **Racking Tips:** Racking your wine or beer (from primary fermentor to secondary carboy, or into a bottle) involves the risk of incorporating air into your wine or beer. To minimize the risk of “oxidation”:
   i) Avoid splashing of wine when racking. Always keep the end of the syphoning hose below the surface of the liquid.
   ii) Always make sure that your airlock and bung are securely attached and level of water in airlock is properly maintained.

5) **Water Quality:** Be sure to use good quality drinking water.

6) **Cork Quality:** When bottling wine, be sure to use quality corks only. Higher quality corks give better protection against oxidation. Longer corks (min. 1 3/4”) and those with little or no large fissures are preferable. Natural corks are generally better for long term aging. Check with your retailer for more details on the different styles of cork available.

TEMPERATURE AND YEAST

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Fermentation</th>
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<tbody>
<tr>
<td>&lt;45°F (7°C)</td>
<td>Stuck</td>
</tr>
<tr>
<td>50 – 65°F (10 – 15°C)</td>
<td>Slow Fermentation</td>
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<tr>
<td>65 – 75°F (18 – 24°C)</td>
<td>Normal Fermentation</td>
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<tr>
<td>80 – 115°F (27 – 46°C)</td>
<td>Very Rapid Fermentation</td>
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<tr>
<td>120°F (49°C)</td>
<td>Death</td>
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