Choosing and Using Your Barbecue Kettle

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The barbecue kettle - a masterpiece of cooking supremacy. When cooked in a barbecue kettle, meat, poultry and seafood have a magnificent taste and appearance, and they remain naturally juicy. Because the round kettle is really a very sophisticated convection oven, food is cooked quickly and evenly on all sides. Beautiful flavours are created by small amounts of smoke. These occur naturally in the kettle.

The secret of this remarkable cooking lies in the shape and design of these barbecues. When properly vented, they allow cold air to enter through the bottom vents. This cold air is drawn by convection, to the glowing coals, where it provides oxygen to keep them burning. Here the air becomes heated. It rises up and around the food being cooked, and finally passes out through the top vent. This flow of air continues in, around and out of the cooking chamber for as long as the fuel lasts, or until the vents are closed.

The temperature of the air is determined by the amount of fuel which is burning inside the kettle. The more fuel you have burning inside, the higher the temperature will be. The less fuel you have burning, the lower the temperature.

No matter how much fuel is being used, the higher temperature is always at the commencement of cooking. As the fuel gradually burns away, the temperature inside the kettle begins to fall. It continues falling gradually until the fuel is finally exhausted. This whole process can take as long as nine hours, depending on the quantity and type of fuel being used. At any time the temperature may be dropped abruptly by closing off the top and bottom vents. This deprives the coals of oxygen, causing them to go out.

Conventional barbecues can only grill or fry the food; kettles are able to do this, but they are also able to roast and bake. The picture shows a cross section of a barbecue kettle which is ready to roast or bake. You will notice that the coals providing the heat are placed out to the sides. When roasting or baking, the food is placed on the upper grill between the two fires, directly above a foil tray. This method of cooking is called indirect cooking. It will be used for the majority of recipes in this book.



Cross-section of a complete barbecue kettle

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# Choosing a Barbecue Kettle

The first thing you should do is to make sure that you get a real barbecue kettle. Barbecue kettles are round, not rectangular. It is this "roundness" that provides the near perfect air circulation which gives them such a huge cooking advantage.

Over the past 20 years, there have been somewhere between 30 and 40 different brands of barbecue kettles sold in Australia (interestingly only 2 or 3 of these brands still survive).

Barbecue kettles vary greatly in price and quality. Often the essentials needed for barbecue kettle cooking are not included as standard equipment with your purchase. For these reasons we thought it would be helpful to examine the component parts of a barbecue kettle, and identify the essentials required for successful cooking.

#### Handles

The handles on barbecue kettles are normally of two types; they are either welded to the bowl or bolted through it. If the handles are welded to the barbecue, they are much stronger. Bolted handles inevitably work loose. This means enormous leverage is placed on the body of the barbecue resulting in chipped enamel or damaged paint work.

#### Vents

The vents are very important because they control the amount of air which can flow through the barbecue. They create the natural convection necessary for this type of cooking. Both top and bottom vents should be large enough to allow a good flow of air to enter and exit the cooking chamber.

In our opinion the One-Touch<sup>TM</sup> system as found on some of the Weber<sup>®</sup> models is superior to all others. It allows the user to remove

accumulated ashes without having to remove the internal grills. It also allows the 3 bottom vents to be closed with one simple movement.

#### **Enamel or Paint**

One thing is certain - all barbecue kettles should be coated inside and out with vitreous or porcelain enamel.

Painted barbecues inevitably deteriorate for two reasons. They are usually unable to withstand the fierce heat generated by cooking fires, and they cannot withstand cleaning with caustic-based oven cleaners. Perhaps this is why kitchen ovens have always had an enamel surface.

#### Leg Attachment

For safety reasons, the legs should be firmly attached to the barbecue bowl. They should be capable of being locked into place, rather than merely held by thumb screws. This will avoid possible serious accidents.

#### Inside the Barbecue

There should be two grills. The top grill (cooking grill), which is usually chromed or nickel plated, supports the food. The bottom grill (charcoal grill) supports the barbecue fuel.

If you intend to roast or bake in your barbecue kettle, charcoal rails or baskets are essential. They hold the hot coals to the sides and prevent them from collapsing and falling under the food. If these were not included as standard equipment with your barbecue kettle, they can be acquired as an accessory. Some type of tray placed between the coals on the bottom grill will be required to catch fats falling from the meat being cooked above. We recommend the use of foil trays, rather than baking dishes or steel trays which may become too hot, causing the fats to smoke excessively or even ignite

#### The Size of Your Barbecue Kettle

Most barbecue kettles are 57 cm (22<sup>1</sup>/<sub>2</sub>") in diameter. This is an excellent working size for the average family. (We always use two barbecues when entertaining friends with a menu of several courses.) For instance, you could smoke food or use the wok on one barbecue while cooking a large roast on the other. Barbecue kettles with a smaller diameter than 57 cm usually have limitations with respect to the size and variety of food that can be cooked on them.

## Barbecue Kettle Accessories

There is an extensive range of barbecue kettle accessories, many of which are excellent value and of great aid to the outdoor chef.

## The Charcoal Basket Lighting System.

Developed during the 1990s this system is a must for people who bought their kettle for the purpose of roasting outdoors.

They make lighting preparation much quicker and easier.

This system comprises two accessories; the first, metal baskets that hold just the right amount of fuel for indirect cooking and the second, a specially shaped charcoal grill, with cavities designed to hold firelighters directly below the baskets.

#### Barbecue Tongs

We recommend that the barbecue kettle chef has at least three sets of household tongs for use with the kettle. One pair we always leave with our barbecues. It is a long pair, and is used solely for moving hot coals, or left over fuel around from one side to the other in the barbecue. This long set is not used to pick up or turn food. The two other sets of tongs are shorter, and are used for picking up small or large roasts, steaks, chops and the like. They soon become an extension of your hand.

#### Gas Conversions

Many people have such a busy lifestyle that they simply don't have time available for lighting briquettes. These are the people who love to use their barbecue kettle with gas. Remember when purchasing a gas conversion kit to select one that is designed to cook by the indirect method. The best of them have two heat settings so that you can easily produce a flavour that almost perfectly matches that of briquettes.

## The Weber Gas Kit

The Weber Gas System is the only gas burner system we have found to meet these requirements. It has been specifically designed for indirect cooking.

Weber provides lighting instructions with the Gas Kit which are simple to follow. Once the barbecue is alight place the drip pan(s) on the bottom grill between the burners. Replace the top grill. The food should be positioned on the top grill over the drip pan(s). Commence cooking by replacing the lid.

Following are instructions on how to use the Weber Gas System with the recipes from this book. Each recipe details the type of fire to be used.

- **Hot Fire:** Set the control knob to High and cook for 50-60 minutes, then turn to Low for the remainder of the cooking time.
- **Normal Fire:** Set the control knob to High and cook for 25-30 minutes then turn to Low for the remainder of the cooking time.
- **Low Fire:** Set the control knob to Low for the entire cooking time.

Follow these directions and in nearly all cases you'll find that cooking times are the same as shown in the recipes in this book.

#### Meat Thermometer

The meat thermometer takes the guesswork out of barbecue cooking. You can estimate when your food will be ready, but the meat thermometer confirms it for you by indicating the internal temperature of the meat being cooked.



#### Cooking Chart

Meat	Final Temperature	
Beef, Lamb (rare)	140° F	60° C
Beef, Lamb (medium)	160° F	71° C
Beef, Lamb (well done)	170° F	77° C
Pork	170° F	77° C
Ham, fully cooked	140° F	60° C
Ham, uncooked	160° F	71° C
Turkey, unstuffed	185° F	85° C
All other fowl	185° F	85° C
Venison roasts	140° F	60° C

The thermometer should be inserted into the thickest part of the meat. Wait a few minutes and you can then read the temperature. This indicates how well the meat is cooked. We have found it is better not to leave the thermometer in the meat during the cooking process. Meat thermometers may shatter under the fierce heat generated inside the barbecue kettle. They also tend to brown over

and become difficult to read. Using the thermometer when you think the meat is cooked is a much better idea. When inserting the thermometer take care not to touch any bone as this will give you a false reading.

#### Weber Barbecue Beeper.



The very latest in meat thermometers is the digital/remote version. It beeps to let you know when your roast is cooked to your liking. It doesn't even need to be near the barbecue, you can carry it around on your belt or leave it somewhere handy.

#### Portable digital receiver

The portable digital receiver displays the type of roast, the cooking options, the target temperature and the current temperature in the centre of the meat.



#### Digital transmitter

The Digital Transmitter is connected to the probe by the insulated cable so that it can be located outside the barbecue.

#### **Oven Mittens or Cloth**

An insulated mitten or cloth can be a great help. Some barbecues have bottom vents located near the coals and they can become extremely hot to touch. Avoid closing any of the vents on the barbecue with your bare hands.

#### Skewers

For kebabs we like to use the cane variety. These require no washing up. They are fully disposable, and do an adequate job on the barbecue. If you are going to place wooden skewers directly over the coals, it pays to soak them in water for some time prior to cooking. It is important, however, to use stainless steel skewers when cooking foods which take a long time.

#### Chinese Wok

Wok cooking on the barbecue adds a delightful variety to outdoor entertaining. Woks are exciting to watch when being used, and they add a lot of atmosphere to outdoor cooking.



Woks are available at barbecue shops and the barbecue departments in most major retail stores. They are designed to fit both 57 cm  $(22^{1}/_{2}")$  and 47 cm  $(18^{1}/_{2}")$  barbecue kettles.

#### **Cast Iron Cooking Grill**

A cast iron grill, like the one pictured, fits on top of the cooking grill. When pre-heated, the iron becomes very hot. Cooking a steak on this surface brands the meat, giving it a magnificent appearance and flavour.



#### Hotplate

To complete your barbecue kettle equipment you really should have a hotplate. This will enable you to cook old favourites like onion rings, eggs, bacon, hamburgers and pancakes.



# The Indirect Cooking Method

#### Preparing Your Barbecue for Indirect Cooking

It is the indirect cooking method that distinguishes the barbecue kettle from other barbecues. When roasting or baking, the food is placed on the upper grill between the two fires, directly above a foil tray. This method of cooking is called indirect cooking. It will be used for the majority of recipes in this book (see photograph on page 2).

If your barbecue is equipped with a Charcoal Basket lighting system go directly to **Indirect Cooking using a Charcoal basket lighting system** on page 9.

1. Open the top and bottom vents on the barbecue, and remove the lid.



2. Position the bottom grill so that its steel rungs run across the bottom of the barbecue from front handle to back handle, and set the charcoal rails in place.



3. When positioning the charcoal rails, make sure that the hooks on the rails hook over the outside straight rungs of the bottom grill. The front of the charcoal rails will then slip over the third rung of the bottom grill and click into place.

#### Lighting the Indirect Fire

1. Having positioned the charcoal rails correctly, place two fire-lighters on each side so that they are about 80-100 mm apart.



2. Add the required number of barbecue briquettes (for quantities see table on page 11) so that they completely cover the fire-lighters.



3. Light the fire-lighters by passing a lighted match or taper through the charcoal rails, and touching the lighters with the flame. Make sure that all of the fire-lighters are burning well before leaving the barbecue (sometimes a strong wind can blow them out if they are not burning well).



4. The barbecue may now be left until the coals are ready to cook. It will take about 45 minutes for the fire to establish itself. During this time, make sure that the lid is left off the barbecue. This allows more oxygen to reach the coals. On no account should you place the lid on the barbecue while the fire is getting ready to cook.



The fire will now progress through the following stages.

- Stage 1. The firelighters burn with a yellow flame for about 10 minutes. Do not attempt to cook in this time. The temperature will not be hot enough, and the food will absorb kerosene fumes giving it an unpleasant taste.
- Stage 2. After the fire-lighters cease burning, the fire will appear to go out. This is not so, the coals are in fact burning below, and the fire will continue to grow. There is insufficient temperature to cook at this stage.



Stage 3. 20-25 minutes after lighting, some of the coals will be glowing and coated with a brownish ash. To achieve the correct cooking temperature, all of the briquettes should be ashed over, so don't attempt to cook yet.



Stage 4. 40-45 minutes after lighting, all the coals will be ashed over and ready for cooking, This completes the fire preparation for indirect cooking.



## Indirect Cooking Fire - Quick Method

The time taken to establish the fire can be shortened from 45 minutes to about 30 minutes. This is done by using 4 fire-lighters on each side instead of 2. This "quick method" should only be used in emergencies, due to the increased cost of fire-lighters involved.

#### Indirect Cooking using a Charcoal Basket Lighting System.

- 1. Open the top and bottom vents on the barbecue, and remove the lid.
- 2. Position the bottom grill so that its steel rungs run across the barbecue rather than from front to back, this ensures that the hot baskets are not located under the handles when your fires are alight.
- 3. Place 4 fire-lighters (2 on each side) in the cavities provided in your Charcoal grill.
- 4. Place the metal baskets on the Charcoal grill and fill them with the required number of briquettes. (For quantities, see table on

page 11).

The inside of your barbecue kettle should now look like this.



## *Lighting the Indirect Fire using a Charcoal Basket Lighting System.*

 Light the fire-lighters using a lighted match or taper. Make sure that all of the fire-lighters are burning well before leaving the barbecue (sometimes a strong wind can blow them out if they are not burning well).



2. Once the fire-lighters are alight move the metal baskets to the centre of the Charcoal grill over the flames.



3. The barbecue may now be left until the coals are ready to cook. It will take about 35 minutes for the fire to establish itself. During this time, make sure that the lid is left off the barbecue and all vents are open. This allows more oxygen to reach the coals which helps establish the fire faster. **On no account should you place the lid on the barbecue or close the vents while the fire is getting ready to cook. (Your barbecue is not the same as an oven.)** 

The fire will now progress through the following stages.



- Stage 1. The fire-lighters burn with a yellow flame for about 10 minutes. Do not attempt to cook at this time. The temperature will not be hot enough and the food may absorb kerosene fumes, giving it an unpleasant taste
- Stage 2. After the fire-lighters cease burning, the fire will appear to go out. This is not so, the coals are in fact burning below, and the fire will continue to grow. There is insufficient temperature to cook at this stage.



Stage 3. 20-25 minutes after lighting, some of the coals will be glowing and coated with a brownish ash. To achieve the correct cooking temperature, all of the briquettes should be ashed over, so don't attempt to cook yet.





4. About 35-40 minutes after lighting, all the coals will be ashed over and ready for cooking. It's now time to separate the metal baskets. Using long handled tongs and mittens, move them as far as possible out to the sides.

This completes the fire preparation for indirect cooking.

#### *Controlling the Temperature - Indirect Cooking*

The temperature inside the barbecue is determined by the number of barbecue briquettes burning inside. In Australia there are two sizes of barbecue briquettes available to consumers. If you are using the smaller size briquettes you will need more of them to achieve the correct cooking temperature than the larger size briquettes. Originally all barbecue briquettes were about golf ball size or a little smaller. More recently larger barbecue briquettes (about twice that size) have been introduced to the Australian market.

In this book, cooking temperatures are described for the various recipes in the following way:

Hot fire Normal fire Low fire Low smoke fire In a 57 cm (22 <sup>1</sup>/<sub>2</sub>") barbecue kettle these temperatures are achieved by using the following barbecue briquette quantities:

Large Briquette Quantities (Heatbead<sup>®</sup> Brand).

Hot fire	64 barbecue briquettes - 32 on each side
Normal fire	50 barbecue briquettes
	- 25 on each side
Low fire	36 barbecue briquettes
	- 18 on each side
Low smoke fire	12 barbecue briquettes
	- 6 on each side

Small Briquette Quantities (Other Brands).

Hot fire	90 barbecue briquettes - 45 on each side
Normal fire	70 barbecue briquettes
	- 35 on each side
Low fire	56 barbecue briquettes
	- 28 on each side
Low smoke fire	16 barbecue briquettes
	- 8 on each side

We suggest that you actually count the briquettes when preparing your first few indirect cooking fires. After a while, you will become familiar with the various quantities required and you will be able to judge them visually.

As we mentioned earlier, the temperature is always higher at the commencement of cooking, and as the fuel gradually burns away, the temperature falls. As a rule of thumb, after approximately 2 hours of cooking with the lid on, a hot fire will become the equivalent of a normal fire, and a normal fire will become the equivalent of a low fire after the same period of time. Knowing this can be very useful when planning to cook a second course.

## **Cooking Using the Indirect Method** Use of Foil Drip Trays

When the fire is ready for cooking, a drip tray or trays will need to be placed on the bottom grill between the two fires. These trays will catch any fats, juices and bastes which fall from the food during cooking. When selecting a drip tray, it is important that the tray be large enough to catch all of the drippings from the food above. In this book, we have suggested two configurations for the use of drip trays.

A single drip tray is used for smaller roasts, and is adequate for most meals. For larger meals  $1^{1}/_{2}$  drip trays should be used by placing one large and one small tray on the bottom grill as shown in the illustration.



1 drip tray



11/2 drip trays

#### Positioning the Cooking Grill

Place the cooking grill on the barbecue with the grill handles directly over the fires. You will notice that there are holes in the grill located beneath the handles. These are to facilitate the addition of either smoking wood chunks or, should the need arise, extra barbecue fuel. A wonderful innovation in the design of cooking grills was the introduction of hinged doors in the grill for this purpose. These hinged cooking grills can now be purchased as accessories.



The Hinged cooking grill in action.

#### Indirect Smoke-Cooking

Smoke-cooking adds a beautiful change to the aroma and flavour of many foods. Throughout this book, we have provided many recipe suggestions using smoke-cooking. Smoke-cooked foods are particularly delicious when combined with sweet glazes. The great advantage of this type of cooking is that it is so simple.



Normal indirect fires are transformed into smokecooking fires by adding just 1 or 2 chunks of hickory wood (or other smoking material) to the coals on each side of the barbecue. The more smoke flavour you require, the more hickory chunks you add. It is a good idea to leave the lid off for a little while when adding the hickory. This allows it to catch fire. Once it is burning, replace the barbecue lid, and it will begin smoking quite intensely. It is important to use chunks of smoking wood rather than chips or sawdust. The chunks smoke longer and require less attention, resulting in a far superior smoke flavour.

Lower temperatures are created inside the barbecue by using less fuel. We have found "The Low Smoke Fire" (see page 11 for briquette quantities) creates an excellent temperature for smoking small fish.

#### Preparing a Low Smoke Fire

1. For this type of fire, only 1 fire-lighter is used. Place the fire-lighter behind a charcoal rail on one side of the barbecue.



- 2. Count out the required number of barbecue briquettes and carefully pile them over the firelighter. Ignite the fire-lighter in the normal manner.
- Allow all of the barbecue briquettes to ash over (about 40 minutes), then use tongs to transfer half of the briquettes to the other side of the barbecue.





- Position the drip tray on the bottom grill and add 1 dry hickory chunk to the coals on each side. Leave the lid off until the hickory is smoking well.
- 5. Place the cooking grill in position, and commence cooking as the recipe directs.



# The Direct Cooking Method

This method of cooking differs from the indirect cooking method because the coals which provide the heat are placed on the bottom grill directly under the food being cooked. In barbecue kettles, direct cooking is used for grilling steaks, either on the wire grill provided or a cast iron cooking grill. Foods containing lots of fat, such as chops and sausages, should never be cooked using this method. The fats dripping from such foods cause excessive smoking and grease build-up inside the barbecue. They should be cooked using the indirect method. The direct cooking fire is also used for hotplate and wok cooking. We never use a direct cooking fire for any application other than steaks, toast, hotplate or wok cooking.

## Preparing the Barbecue for Direct Cooking

1. Open the top and bottom vents on the barbecue and remove the lid.



- 2. Position the bottom grill so that its steel rungs run across the barbecue from front handle to back handle, and set the charcoal rails in place.
- 3. When positioning the charcoal rails, make sure that the hooks on the rails hook over the outside straight rungs of the bottom grill. The

front of the charcoal rails will then slip over the third rung of the bottom grill, and click into place. In the case of direct cooking the charcoal rails keep the coals centrally located on the bottom grill.



## Lighting the Direct Fire

1. Having positioned the charcoal rails correctly, place 3 or 4 fire-lighters on the bottom grill between the charcoal rails, and add the barbecue briquettes (not heating briquettes).



2. Light the fire-lighters with a match or taper, and using a pair of tongs, cover them with barbecue briquettes. Make sure that all of the fire-lighters are burning well before leaving the barbecue (sometimes a strong wind can blow them out if they are not burning well).



3. The barbecue may now be left until the coals are ready to cook. It will take about 45 minutes for the fire to establish itself. During this time, make sure that the lid is left off the barbecue. This allows more oxygen to reach the coals. On no account should you place the lid on the barbecue while the fire is getting ready for cooking.

The fire will now progress through the 4 stages previously described under the section dealing with lighting the indirect fire (see pages 8-9).



40-45 minutes after lighting, all the coals will be ashed over and ready for cooking. This completes the fire preparation for direct cooking.

#### Controlling the Temperature - Direct Cooking

The temperature of a direct cooking fire is determined by the number of barbecue briquettes used. In this book, direct cooking fires are described in two ways:

Direct fire Low direct fire

In a 57 cm  $(22^{1}/_{2}")$  barbecue kettle, these temperatures are achieved by using the following barbecue briquette quantities:

Large Briquette Quantities (Heatbead<sup>®</sup> Brand)

Direct fire	40 barbecue briquettes
Low direct fire	25 barbecue briquettes
Small Briquette	Quantities (Other Brands).
Direct fire	70 barbecue briquettes
Low direct fire	45 barbecue briquettes

We suggest that you actually count the briquettes when preparing your first few direct or low direct cooking fires. After a while, you will become familiar with the quantities required and you will be able to judge them visually.

**Positioning the Cooking Grills, Hotplate or Wok** Place the wire cooking grill on the barbecue so that the handles are directly over the charcoal rails. If you are using a cast iron cooking grill or hotplate, it is placed centrally on top of the wire grill - see photograph page 6.

When cooking with the wok, the wire cooking grill is not required. Position the wok on the

barbecue so that the base of the wok is just above the hot coals. Make sure that the wok is level, and that it rests on the 4 internal lugs inside the kettle.

## *How to Test the Temperature of the Oil when Deep Frying*

When deep frying in the wok, always test the temperature of the oil before adding your food. This is best done by using the handle of a wooden spoon. To do this heat the oil for a short time. Place the handle of the spoon in the oil so that it is pressing against the bottom of the wok in the centre. If bubbles rise freely from the wood at the bottom, the oil is hot enough for cooking.

#### Warning!

Do not leave the wok unattended. A hot wok containing 1-2 litres of cooking oil should always be under adult supervision. After cooking always remove the wok from the barbecue and put it in a safe place out of the reach of children. If the wok is left on the barbecue, the oil may overheat and even ignite. Because the wok becomes very hot,



Tempura

very quickly, never preheat the wok for more than 20 or 30 seconds before adding your oil. If the wok becomes too hot the oil will spontaneously ignite.

# Use of Weights and Measures in this Book

Australian Standard metric measuring cups and spoons are used throughout this book. All spoon measurements are level.

1 cup	250mls
1 tablespoon	20mls
1 teaspoon	5 mls

We suggest that you purchase a set of plastic metric measures bearing the seal of approval of the Standards Association of Australia. These form the basis of all metric cookery and will be invaluable for future use. They consist of:

- 1. A set of four measuring cups based on the 250ml cup.
- 2. A set of four spoons 1 tablespoon, 1 teaspoon,  $1/_2$  teaspoon and  $1/_4$  teaspoon.
- 3. A one litre measuring jug with both cup & millilitre graduations.

It is also a good idea to invest in a set of metric scales for measurement of ingredients where a weight rather than a cup measurement is required e.g. 500 g Topside Steak.

When testing the recipes for this book, we used Weber<sup>®</sup> 57 cm (22<sup>1</sup>/<sub>2</sub>") One-touch<sup>™</sup> barbecues and accessories, Heat Beads<sup>®</sup> barbecue fuel and Jiffy<sup>®</sup> fire-lighters. All barbecue fuel quantities, lighting times and cooking times have been determined using these products.