## **COOKING WITH WOOD**



THE FIREWOOD ASSOCIATION OF AUSTRALIA INC.

In recent times there has been a resurgence in the use of wood fires for cooking. No longer is it just the old backyard barbecue or the occasional campfire. Wood fired pizza restaurants are appearing in most suburbs. Mobile wood fired pizza ovens and spit roasts can be hired for parties and small wood fired ovens for home cooking have become very popular. Many high end steak houses, such as the Rockpool Bar & Grill restaurants in Sydney and Melbourne use a wood fire to cook their steaks. Some chefs are even using specific types of wood such as Black Oak (Casuarina pauper) to impart an intense smoky flavour to their food.

So what is it that is so uniquely appealing about food that is cooked on a wood fire?

Archaeological studies show that our primitive ancestors used fire for cooking at least 400,000 years ago. Some scientists suggest that fire was being used as early as 1.8 million years ago by early hominid species such as homo erectus. The use of fire to cook food brought about significant changes in the evolution of modern man. By cooking in a fire, some complex carbohydrates in starchy foods became more digestible, allowing humans to absorb more calories. Cooked meat becomes tender and easier to digest. The resultant changes in diet allowed a reduction in the size of teeth and jaws and a reduction in the length of intestines, also an increase in brain size. The increase in calorific intake from cooked food helped these early hunter-gatherers to thrive and eventually become the dominant species on the planet.

Of course primitive humans did not understand about carbohydrates and calories, all they knew was that food cooked over a fire tasted better, was easier to eat and gave them more sustenance. This legacy from our primitive past is the reason that the smell of food being cooked over a hot flame makes us salivate with anticipated pleasure. Nowadays that flame is often provided by burning methane or propane gas, but that is a recent invention. Up until the mid 1800's the only way to cook food over flames was by wood fire. While gas fired barbeques and grills are convenient they cannot replicate the flavour and cooking quality of a wood fire.

Obviously the by-products of the combustion process are quite different between gas and wood. For example, because pure propane is odourless, for safety reasons a smelly chemical, usually ethyl mercaptan, which smells like rotten eggs, is added to the gas so that we can detect any gas leaks. Food that is cooked over a gas flame containing this chemical can absorb some of it, or its main combustion product sulphur dioxide. Even though it may not be very noticeable, the flavour of food cooked over a gas flame will be affected. Other by-products of propane gas combustion are carbon monoxide, carbon dioxide and various nitrous oxides.

On the other hand, most people find that the combustion by-products of wood enhance the flavour of food. This perception of enhanced taste and flavour from wood smoke may reflect some genetic echo from our long distant past. The appeal of wood smoke is so ingrained in our flavour senses that many foods that are not cooked over a wood fire are made to taste smoky by the addition of artificial flavouring.

But as we know, the pleasure of food extends way beyond just flavour. It is the whole experience – the environment, the atmosphere, the social interplay – right from planning the menu, buying the ingredients, the cooking process, the eating and the digestion.

No matter which equipment is used and what food is cooked, there are skills to be learnt and mastered in wood-fired cooking. Whether it is a simple and basic family barbeque, a commercial restaurant or a special event, cooking with wood enhances the flavour and enjoyment of food, as well as the accolades that a successful chef will receive.

