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Stock as unthickened liquid part of meat: Ultrasound processing effects

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C tock (Fond, Fr.) is defined as "a clear, unthickened liquid flavored by soluble substances extracted from meat, poultry or fish and Otheir bones as well as from a mirepoix, other vegetables and seasonings". Broth is defines as "a flavorful liquid obtained from the long simmering of meats and or vegetables". Meat stock is the aqueous solution obtained by thermal processing of animal tissues in water. Stock is used as a base for soups and sauces. Preparation of beef stock involves cooking of meat, bones, vegetable and herbs in water during which process meat compounds are extracted into the water adding flavour and mouthfeel to the stock. The nonvolatile fractions extracted from meat are important taste compounds in and, furthermore are precursors of volatiles developed during cooking. After separation of meat and stock, the stock is often reduced (boiled down) in order to enhance flavour and change consistency. If greatly reduced, the stock turns into a thick syrupy liquid, a so-called glaze which is used as a concentrate to fortify soups and sauces. Consumer demands high quality, convenient, innovative, regular and safe meat products with natural flavour and taste and an extended shelf-life. Moreover less salty, less acidified and less chemical preserved products are required. To match all these demands without compromising safety, the production and manufacture of meat products is at stage of innovative dynamics thus stimulating a major research issue to develop and implement alternative technologies such as the so called non-thermal technologies or alternative, quicker, sensory-milder thermal technologies. Ultrasound, in its most basic definition refers to pressure waves with a frequency of 20 kHz or more. High power ultrasound at lower frequencies (20 to 100 kHz) is referred to as 'power ultrasound' and has the ability to create physical (micro-mechanical) and chemical antimicrobial effects. In this research, total quality criteria of stock including total aerobic bacteria, Escherichia coli, Staphylococcus aureus, Clostridium perfringens, Salmonella, Listeria monocytogenes, mould and yeast and pH, total oil, total nitrogen, salt and creatinine in conditions with ultrasound 20-80 kHz and was evaluated the quality profiles of used inovative seasoning food.

Biography

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