



An approach to the preparation of chicken using heat and flavoring

2 Methods

In this section we give specific ways to use seasoning and heating to improve the problem mentioned above and demonstrate the methods of comparative experiment.

2.1 Use of seasoning and heating

Prior to heating, the chicken was seasoned first. In this study, common roosters were purchased from WUMEI Market. Note that the killing, dehairing and washing of the chicken have been carried out in the market. Firstly, the chicken was divided into pieces weighing between 100-110 g using an ABC-11 kitchen knife and was placed in a steel pot with a diameter of 15 cm. Manual cut would introduce weight error inevitably, but John et al. have found that this error has a negligible effect on cooking.[1] Then 20 mL cooking wine and 2 g ginger granules were added into the pot to remove the fishy taste based on Hens et al. (2011).[2] After 10 minutes, 1 g salt, 5 mL oyster sauce and 2 g paprika were added and mixed well using chopsticks. These spices have a variety of flavors [3], and mixing them with the chicken gives the chicken those flavors.

In our approach, a YUMMY-2024 oven was used as the heating tool. The YUMMY-2024 oven can heat ingredient evenly equipped with the latest temperature control device and is widely used in cooking. Here we used its timed heating function, which was set for 45 minutes at 200 °C. The pot with chicken inside was placed in the oven to heat.

2.2 Comparative experiment

The same part of a same rooster was carefully and symmetrically divided into two parts for the comparative experiment, numbered 1 and 2. The chicken 1 was cooked using Dundee method while the chicken 2 was cooked using our method. After cooking, chicken 1 and 2 were sealed with sterile gloves to avoid contamination and tested for bacterial density using the method in Sarah et al. (2020).[4] In addition, more chicken was divided and cooked in a similar way and was tasted by 100 volunteers selected randomly but ensured gender balance. Each volunteer tasted just one of the two kinds of chicken and then rated on a scale of 0-100. The scores were statistically analyzed along with information about volunteers' ages and occupations.

Reference

[1] John et al. "The effect of the weight of ingredients in cooking" *Cooking* 2.6 (2017): 312-315.

[2] Hens et al. "A method of removing the fishy taste of meat with seasoning" *Cooking*

Skill 2.6 (2011): 312-315.

[3] Azaliksa et al. "A review of flavors of common spices" *Nature* 2.6 (2015): 312-315.

[4] Sarah et al. "A practical method for monitoring bacterial colony density and its effect test" *Science* 2.6 (2020): 312-315.