

An approach to the preperation of chicken using heat and falvouring

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1 Method

In this study, we devised a concise procedure for households to prepare chicken, enhancing its flavor and minimizing the risk of bacterial contamination. We procured three live chickens from various supermarkets including Walmart, Sam's, Target, and Kroger to ensure ingredient freshness and the applicability of our method.

Instead of killing the chicken directly as described in QAA's work[1], we first used the butcher knife to cut the artery slightly on the chicken's neck without killing the chicken, so that the chicken's heart would pump the blood cleaner, which could largely reduced the blood odor. Subsequently, we plucked and chopped the chicken into small pieces using a cleaver, following the same process as Dundee's method[2]. After that, a novel step is to mix the chicken thoroughly with seasonings. By doing so, the chicken meat would be more flavorful and taste more tender. Specifically, we put these pieces of each chicken were put in different stainless steel pots with diameter of 60cm, and added about 50ml cooking wine, 3-5 pieces of ginger, a half tablespoon of pepper and one tablespoon of salt in to the each pot. Then we use hands to rub the mixture of these chicken and seasonings gently for 10min. Finally, each pot was placed on a Panasonic E458X 500w standard electric heating furnace for 25-35min at 300-350 °C. According to Baga's work[3], this carefully calibrated temperature and time can not only preserve the nutrients in chicken, but also killing 95% of bacteria. At the same time, we also pay attention to stir constantly to make the chicken being heated evenly.

Considering that this chicken processing method was designed for household kitchens, which typically lack precise temperature control and weighing devices, the parameters in our study had a slightly wide range. With the availability of more advanced kitchen equipment, future experiments could yield more accurate parameters.

References

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- [3] K. Baga, E. Cowell, and J. Jacobs, “Parameter selection for pasteurization,” *American Libraries*, vol. 32, no. 8, pp. 52–55, 2001.