ABSTRACT

THE EFFECT OF CHILLING METHODS APPLIED DURING SLAUGHTRING PROCESS ON MEAT QUALITY CHARACTERISTICS AND SHELF LIFE OF BROILER MEAT

Zeynep KAÇAMAKLI

M.Sc. Thesis, Department of Animal Sciences

Supervisor: Prof. Dr. Mustafa AKŞİT

2012, 45 pages

The aim of this study was determine to the effect growth of some microorganisms on broiler carcasses stored at refrigerator conditions after different chilling processes.This study was conducted in a commercial poultry slaughterhouse usingwater, air and water+air chilling methods. In experiment were used . After slaughtering, a total of 90 broilers with 30 chickens (15♂:15 ♀) in each chilling group were used to evaluate for meat quality parameters. In order to detect shelf life of meat, the total mesophilic and psychrophilic microorganisms were counted on 10 carcasses from each group. At the sampling days (0, 3, 5, 7, 9), the air chilling method delayed the growth of both the psychrophilic (5°C) and mesophilic (30°C) bacteria. These three chilling methods had no significant effect on pH_{15}, $pH_{24,}$ L, a*and b* values. On the other hand, the air chilling method has the lowest weight loss, cooking loss and drip loss. In conclusion, the results demonstrated that the air chilling procedure is positive effect on shelf life and quality of broiler meat.

Key word: chilling methods, meat quality, microbiologic quality, shelf life