Pemanfaatan air terozonasi untuk mempertahankan kualitas daging ayam: pengaruh durasi kontak, suhu kontak dan konsentrasi ozon = Application of ozonated water to maintain the quality of chicken meat: effect of exposure, time, temperature, and ozone concentration

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Abstrak

ABSTRACT
Penelitian ini meninjau pengaruh durasi kontak 40, 80, dan 120 menit, suhu kontak 3, 26, dan 37 ?C, dan konsentrasi ozon 0,21 dan 0,38 mg/l pada pemanfaatan air terozonasi dalam upaya mempertahankan kualitas daging ayam. Parameter mutu yang diamati adalah perubahan jumlah total bakteri mesofil aerobik TBMA, bakteri Escherichia coli, pH, kadar air, dan kadar protein. Hasil menunjukkan bahwa semakin lama durasi kontak dan semakin rendah suhu kontak, maka semakin rendah laju penurunan kualitas daging ayam. Air terozonasi dengan konsentrasi ozon 0,38 mg/L yang dikontakkan dengan daging ayam fillet selama 120 menit pada suhu 3?C mampu mereduksi bakteri mesofilik aerobik sebesar 1 unit log cfu/g. Konsentrasi ozon 0,21 dan 0,38 mampu mendisinfeksi total bakteri mesofilik aerobik sejumlah 0,42 dan 0,89 unit log cfu/g. Tidak ada pengaruh yang signifikan terhadap pH dan kadar air daging ayam, namun kadar protein turun 1.
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ABSTRACT
This research studied the effect of exposure time 40, 80, and 120 min, temperature contact 3, 26, and 37 C, and ozone concentration 0.21 and 0.38 mg l in the optimization of ozonated in effort maintain the quality of chicken meat. The observed quality parameters were total number of aerobic mesophyll bacteria, Escherichia coli, pH, water content, and protein content. The results show that longer exposure time and lower temperature could lower the rate of decreasing quality in chicken meat. Ozonated water with 0.38 mg l of ozone concentration is contacted with chicken fillet for 120 minutes at 3 C, it reduced aerobic mesophilic bacteria by 1 unit log cfu g. The ozone concentrations of 0.21 and 0.38 were able to disinfect total aerobic mesophilic bacteria of 0.42 and 0.89 log cfu g respectively. There was no significant effect on pH and chicken water content, but protein content decreased by 1.