ABSTRAK

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Latar Belakang: Pasta cabai merah keriting (*Capsicum annuum* L.) merupakan pelengkap masakan yang populer di Indonesia mempunyai sifat mudah busuk sehingga perlu perlakuan khusus untuk memperpanjang masa simpan, diantaranya perlakukan ozon. Namun penggunaan ozon menjadi kurang berdampak karena adanya kadar air dalam cabai masih terlalu tinggi sehingga perlu diturunkan. Oleh karena itu, penelitian ini mengkaji kombinasi teknologi ozon dan pengurangan kadar air pada pasta cabai untuk menjaga kualitas zat gizi dan mencegah kerusakan sehingga dapat memperpanjang masa simpan.

Tujuan: Menjaga kualitas zat gizi dan mencegah kerusakan pasta cabai merah keriting akibat mikroorganisme.

Metode: Penelitian dilakukan dengan cara cabai merah keriting dibagi empat kelompok yaitu dengan pencucian menggunakan larutan ozon dan kontrol yang dicuci dengan aquadest lalu diturunkan kadar air pada *hot dryer* selama 4 jam kemudian masing - masing dilumatkan menjadi pasta dan disimpan di suhu ruang dan dingin, selanjutnya dilakukan uji parameter aktivitas antioksidan, kandungan zat gizi, pH, nilai konduktivitas, total padatan terlarut, tekstur, warna, *Total Plate Count,* total capsaicin dan Vitamin C.

Hasil: Penyimpanan dingin serta pencucian ozon baik penyimpanan dingin maupun ruang dapat lebih mempertahankan aktivitas antioksidan, kekerasan, kohesivitas, warna, *Total Plate Count*, capsaicin dan Vitamin C daripada penyimpanan kontrol, namun tidak mempengaruhi kadar proksimat, pH, total padatan terlarut, kekenyalan, konduktivitas pada pasta cabai merah keriting.

Kesimpulan: Kombinasi pencucian ozon dan penyimpanan dingin terbaik dalam menjaga kualitas pasta cabai merah keriting.

Kata Kunci: pasta cabai merah keriting, ozon, zat gizi, kualitas

ABSTRACT

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Background: Curly red chili pepper paste (*Capsicum annuum* L.) is a popular food ingredient in Indonesia that has a short shelf life and requires special treatments to extend its storage period, including ozone treatment. However, the effectiveness of ozone treatment is limited due to the high water content in chili peppers, which needs to be reduced. Therefore, this study investigates the combination of ozone technology and water content reduction in chili pepper paste to maintain nutritional quality and prevent spoilage, thereby extending shelf life.

Objective: To maintain the nutritional quality and prevent spoilage of curly red chili pepper paste caused by microorganisms.

Methods: The study was conducted by dividing curly red chili peppers into four groups: washing with ozone solution and control washed with aquadest, followed by water content reduction in a hot dryer for 4 hours. Each group was then ground into a paste and stored at room temperature and cold temperature. Antioxidant activity, nutrient content, pH, conductivity, total dissolved solids, texture, color, Total Plate Count, total capsaicin, and Vitamin C were analyzed.

Results: Cold storage and ozone washing, both cold and room storage, better maintained antioxidant activity, hardness, cohesiveness, color, Total Plate Count, capsaicin, and Vitamin C than control storage, but did not affect proximate content, pH, total dissolved solids, elasticity, conductivity in curly red chili pepper paste.

Conclusion: The combination of ozone washing and cold storage is the most effective in maintaining the quality of curly red chili pepper paste.

Keywords: curly red chili pepper paste, ozone, nutrition, quality