

Perubahan Kualitas Cabai Rawit (*Capsicum frutescens* L.) selama Pengeringan dengan Variasi Perlakuan Awal Lama Waktu *Blanching*

INTISARI

Oleh:

Nuraini Indah Dwi Septiani

13/346911/TP/10637

Cabai merupakan salah satu produk hortikultura yang bersifat tidak tahan lama, sehingga perlu dilakukan cara untuk memperpanjang umur simpan cabai. Salah satu upaya yang dilakukan adalah dengan mengolah cabai menjadi bubuk cabai. Penelitian ini bertujuan untuk menganalisis laju perubahan densitas, warna, dan karoten total selama pengeringan dengan variasi perlakuan awal lama waktu *blanching*. Cabai rawit sebanyak 1,5 kg di-*blanching* dengan cara pengukusan dengan variasi waktu 5, 10, 15, dan 20 menit. Cabai yang telah di-*blanching* dikeringkan dengan menggunakan *cabinet dryer* dengan suhu 50°C. Perubahan kualitas cabai selama pengeringan dilakukan dengan pengukuran warna setiap 1 jam sekali dan densitas setiap 2 jam sekali hingga akhir pengeringan. Perubahan karoten dianalisis 3 kali selama pengeringan pada kondisi awal, setengah waktu proses pengeringan, dan akhir pengeringan. Kualitas cabai rawit yang dilakukan dengan *blanching* dibandingkan dengan perlakuan tanpa *blanching*. Hasil penelitian laju perubahan densitas pada variasi waktu 5, 10, 15 dan 20 menit secara berturut-turut ialah -15,083 m³/kg, -15,866 m³/kg, -17,031 m³/kg, dan -14,617 m³/kg. Perubahan warna ditunjukkan dengan nilai *chroma*, selisih nilai *chroma* pada variasi waktu 5, 10, 15 dan 20 menit secara berturut-turut ialah 13,78 , 12,66 , 14,27 , dan 13,76. Perubahan kandungan karoten cabai rawit pada variasi waktu 5, 10, 15 dan 20 menit secara berturut-turut ialah 11,804 % , 6,392 % , 4,841 % , dan 7,662 % . Laju perubahan densitas, warna, dan karoten pada perlakuan tanpa *blanching* berturut-turut ialah -7,569 m³/kg, 18,39, dan 9,003 % . Pemberian perlakuan awal *blanching* memberikan hasil perubahan densitas dan warna yang berbeda nyata dibanding perlakuan kontrol, namun perbedaan lama waktu *blanching* tidak memberikan pengaruh yang berbeda nyata. Perlakuan terbaik dihasilkan pada *blanching* dengan waktu 15 menit dilihat dari nilai konstanta laju perubahan densitas dan penurunan kandungan karoten yang diperoleh.

Kata kunci: Cabai Rawit (*Capsicum Frutescens* L.), Pengeringan, Densitas, Warna, Karoten

Quality Changes of Red Chili Pepper (*Capsicum frutescens* L.) during Drying Process with the Variation of Blanching Duration

ABSTRACT

By:

Nuraini Indah Dwi Septiani
13/346911/TP/10637

Chili is one of the horticulture products that are widely consumed for household daily needs. After being harvested, chili continued its metabolism process, which caused to its short shelf-life. One of the efforts that can be done to extend the shelf-life of chili is to process it into chili powder. The purpose of this study is to analyze the changing rate of physical quality of red chili powder including density, color, and total carotene during drying process with blanching pre-treatment variation. 1.5 kg of chili was blanched with the variation of 5, 10, 15, and 20 minutes time. Then chili was dried using cabinet dryer with temperature of 50°C. During the drying process, the color was measured periodically with an interval of 1 hour, while the density was measured with a time interval of 2 hours. Carotene was analyzed in the beginning, middle, and end of the drying process to evaluate the effect of the process on the reduction of carotene. As a comparison, chili without blanching was dried using the same method. The result shows that the changing rate of density of dried chili for blanching time of 5, 10, and 20 minutes are 15,083m³/kg, -15,866m³/kg, -17,031m³/kg, and -14,617 m³/kg respectively. Color changing shown by chroma value. This study also shows that the difference of chroma value for blanching time of 5, 10, 15, and 20 minutes are 13,78 , 12,66 , 14,27 , and 13,76 respectively. The difference of carotene before and after drying process for blanching time of 5, 10, and 20 minutes are 11,804 %, 6,392 %, 4,841 %, and 7,662 % respectively. Meanwhile changing rate of density, color, and carotene of the dried chili with no blanching pre-treatment are -7,569 m³/kg, 18,39, and 9,003 % respectively. Statistical analysis results that blanching treatment does affect the dried chili in density and color parameter, compared to the control one. While the variation of blanching duration did not affect the physical quality of dried red chili. From the study results can be concluded that the treatment that show the best result in physical quality of product is the variation of 15 minutes blanching, shown by its changing rate coefficient of density and carotene obtained.

Keywords: Chili (*Capsicum Frutescens* L.), Drying, Bulk Density, Color, Carotene