ABSTRACT

EFFECT OF CMC ADDITION ON EDIBLE COATING OF CORN STARCH (Zea mays L) ON THE STORAGE OF CHILI FRUIT RED CURLY (Capsicum annuum L)

By

VOIBE OKTAFIANA ULY PARDEDE

Edible coating is an innovative technology in the form of a thin layer that can extend the shelf life of food products or fresh agricultural products. The purpose of this research was to find the best concentration of corn starch (Zea Mays L) added to corn starch-based edible coatings (Zea Mays L). There was the best concentration of CMC (Carboxy Methy Cellulose) added to corn starch-based edible coatings (Zea Mays L), to determine the interaction of CMC (Carboxy Methy Cellulose) and corn starch on edible coatings to extend shelf life. This study used a completely randomized block design (RAKL) factorial with two factors and 3 replications. The first factor was the concentration of Corn Starch (Maizena Flour) (P), which consisted of 3 levels, namely P1 (0%), P2 (3%), and P3 (6%) (w/v). The second factor is the concentration of CMC (C), which consists of 3 levels, namely C1 (0%), C2 (0.3%), and C3 (0.6%) (w/v). The concentration of the addition of CMC to corn starch-based edible coating (Zea Mays L) had a significant effect on weight loss, hardness, color, vitamin C, and water content. The best concentration of adding CMC and corn starch to corn starch-based edible coatings (Zea Mays L) is CMC with a level of 0.3% and 6% corn starch. There is an interaction between CMC and corn starch on the edible coating resulting in the parameters of weight loss, hardness, vitamin C content, color, and water content.

***Keywords**: Edible coating, CMC, corn starch.*

ABSTRACT

PENGARUH PENAMBAHAN CMC PADA EDIBLE COATING DARIPATI JAGUNG (Zea mays L) TERHADAP DAYA SIMPAN BUAH CABAIMERAH KERITING (Capsicum annuum L)

Oleh

VOIBE OKTAFIANA ULY PARDEDE

Edible coating merupakan teknologi inovatif berupa lapisan tipis yang dapat memperpanjang umur simpan produk pangan atau produk hasil pertanian segar. Tujuan dari dilakukanya penelitian ini adalah terdapat konsentrasi penambahan pati jagung *(Zea Mays L)*.terbaik pada *edible coating* berbasis pati jagung *(Zea Mays L)*, terdapat konsentrasi penambahan *CMC (Carboxy Methy Cellulose)* terbaik pada *edible coating* berbasis pati jagung *(Zea Mays L)*, mengetahui interaksi *CMC (Carboxy Methy Cellulose)* dan pati jagung pada *edible coating* untuk memperpanjang daya simpan. Penelitian ini menggunakan Rancangan Acak Kelompok Lengkap (RAKL) secara faktorial dengan dua faktor serta 3 ulangan. Faktor pertama adalah konsentrasi Pati Jagung (Tepung Maizena) (P), yang terdiri dari 3 taraf, yaitu P1 (0%), P2 (3%), dan P3 (6%) (b/v). Faktor kedua yaitu konsentrasi CMC (C), yang terdiri dari 3 taraf yaitu C1 (0%), C2 (0,3%), dan C3 (0,6%) (b/v). Konsentrasi penambahan CMC pada *edible coating* berbasis pati jagung *(Zea Mays L)* berpengaruh nyata terhadap susut bobot, kekerasan, warna, vitamin C, dan kadar air. Konsentrasi penambahan CMC dan pati jagung terbaik pada *edible coating* berbasis pati jagung (Zea Mays L) adalah CMC dengan taraf 0,3%, dan pati jagung 6%. Terdapat interaksi antara CMC dan pati jagung terhadap *edible coating* yang dihasilkan pada parameter susut bobot, kekerasan, kadar vitamin c, warna, dan kadar air.

Kata kunci: *Edible coating, CMC, pati jagung*.