

RINGKASAN

Penelitian ini dilaksanakan di Laboratorium Fakultas Pertanian UISU.

Jeruk manis (*Citrus sinensis*) merupakan buah yang paling banyak ditanam di dunia. Kulit buah jeruk yang baru dipanen mengandung sekitar 70% air, 6-8% gula dan sedikit asam organik, serta mengandung 30% pektin dalam bentuk kering. Daur ulang alkohol dimaksudkan untuk bisa tetap memanfaatkan alkohol sisa dari penyaringan endapan pektin, pemurnian alkohol menggunakan adsorben ini bertujuan agar alkohol bisa digunakan kembali dalam pembuatan pektin dan mendapatkan kualitas pektin yang baik.

Penelitian ini bertujuan untuk mengetahui pengaruh jenis dan jumlah adsorben pada daur ulang alkohol terhadap mutu kualitas pektin dari kulit buah jeruk.

Model rancangan yang digunakan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) faktorial yang terdiri atas dua faktor utama yaitu : Faktor I jenis adsorben (J) : silika gel dan zeolite . Faktor II jumlah adsorben (P): $P_0 = 0\%$, $P_1 = 10\%$, $P_2 = 20\%$, $P_3 = 30\%$. Parameter yang diamati terdiri dari rendemen, kadar air, warna, kadar metoksil, kadar galakturonat.

Hasil penelitian menunjukkan bahwa pengaruh jenis adsorben berpengaruh berbeda sangat nyata ($P > 0,01$) terhadap warna dan kadar galakturonat. Namun berpengaruh tidak nyata ($P < 0,05$) terhadap kadar metoksil, kadar air, rendemen. Jumlah adsorben berpengaruh sangat nyata ($P > 0,01$) terhadap warna, kadar metoksil, kadar galakturonat. Namun berpengaruh tidak nyata ($0,05$) terhadap kadar air, dan rendemen.

Kata kunci : Kulit Jeruk, Pektin, Adsorben

SUMMARY

This research was carried out at the UISU Faculty of Agriculture Laboratory.

Sweet oranges (*Citrus sinensis*) are the most widely grown fruit in the world. Freshly harvested orange peel contains about 70% water, 6-8% sugar and a small amount of organic acid, and contains 30% pectin in dry form. Recycling alcohol is intended to continue to utilize the remaining alcohol from filtering pectin deposits. Purifying alcohol using adsorbents aims to ensure that the alcohol can be reused in making pectin and obtain good quality pectin.

This research aims to determine the effect of the type and amount of adsorbent in alcohol recycling on the quality of pectin from orange peel.

The design model used in this research is a factorial Completely Randomized Design (CRD) which consists of two main factors, namely: Factor I type of adsorbent (J): silica gel and zeolite. Factor II amount of adsorbent (P): $P_0 = 0\%$, $P_1 = 10\%$, $P_2 = 20\%$, $P_3 = 30\%$. The parameters observed consisted of yield, water content, color, methoxyl content, galacturonate content.

The research results showed that the effect of the type of adsorbent had a very significant ($P > 0.01$) effect on the color and galacturonate content. However, there was no significant effect ($P < 0.05$) on methoxyl content, water content, and yield. The amount of adsorbent had a very significant effect ($P > 0.01$) on color, methoxyl content, galacturonate content. However, it had no significant effect ($P > 0.05$) on water content and yield.

Keywords: Orange Peel, Pectin, Adsorbent