

## Uji potensi madu PS (Pollen Substitute) sebagai penurun kadar glukosa darah mencit (*Mus musculus L.*) jantan galur DDY yang diinduksi aloksan = Potential hypoglycemic effect test of honey PS (Pollen Substitute) on alloxan induced male DDY mice *Mus musculus L.*

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### Abstrak

Telah dilakukan penelitian yang bertujuan untuk mengetahui potensi madu PS (Pollen Substitute) sebagai penurun kadar glukosa darah puasa dan post-prandial mencit (*Mus musculus L.*) jantan galur DDY. Dua puluh empat ekor mencit jantan dibagi ke dalam 4 kelompok hewan uji, yaitu kelompok kontrol normal (KK1) yang diberikan pakan standar dan akuades, kelompok kontrol perlakuan (KK2) yang diberikan aloksan dan akuades, dan 2 kelompok perlakuan (KP1 dan KP2) yang diberikan aloksan serta madu PS 10% dan 20% selama 14 hari berturut-turut. Pengukuran kadar glukosa darah dilakukan pada awal ( $t_0$ ) dan akhir penelitian ( $t_{14}$ ) dengan menggunakan glukometer. Hasil uji anava satu arah ( $P < 0,05$ ) menunjukkan adanya pengaruh nyata pemberian madu PS terhadap kadar glukosa darah semua hewan uji. Hasil uji LSD ( $P < 0,05$ ) menunjukkan bahwa kadar glukosa darah KP2 tidak berbeda nyata dengan KK1. Penurunan kadar glukosa darah puasa dan post-prandial KP2 secara berturut-turut mencapai 42,5% dan 39,75%. Berdasarkan hasil tersebut, maka dapat disimpulkan bahwa pemberian madu PS 20% dapat menurunkan kadar glukosa darah mendekati normal (mengacu pada KK1).

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The study has been conducted to know the hypoglycemic effect of PS (Pollen Substitute) honey administration on fasting and post-prandial blood glucose level of male-DDY mice (*Mus musculus L.*). Twenty four male mice were divided to four groups consisting of normal control group (KK1) which was administered with neither alloxan or PS honey; treatment control group (KK2) which was administered with alloxan; and two treatment groups (KP1 and KP2) which was administered with alloxan and PS honey 10% and 20%, respectively, within 14 consecutive days. Fasting (16 hours) and post-prandial (2 hours after eating) blood glucose level were measured using glucometer. One-way anova test ( $P < 0,05$ ) showed that fasting and post-prandial blood glucose level decreased significantly. Least significant difference (LSD) ( $P < 0,05$ ) test showed that only the administration of 20% PS honey (KP2) cause the significant decrease in both fasting and post-prandial blood glucose level. According to normal control group (KK1), the blood glucose level of KP2 has been reduced to its normal range. It is concluded that administration of 20% PS honey significantly lowered blood glucose level (fasting and post-prandial).