Pembuatan dan pemberian pollen substitute menggunakan candida parapsilosis CR057 sebagai pakan tambahan apis cerana fabricius = Preparation of the pollen substitute made of candida parapsilosis CR057 and its uses as a feed supplement to apis cerana fabricius

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Abstrak

Penelitian bertujuan membuat pollen substitute (PS) yang disukai dan dapat meningkatkan produktivitas lebah madu A. cerana. Tiga macam pollen substitute dibuat dengan bahan dasar tepung kedelai dan susu skim. PS A mengandung bahan dasar, Candida parapsilosis CR057, dan madu; PS B mengandung bahan dasar dan sirup gula; dan PS C mengandung bahan dasar dan madu. Pemberian PS dilakukan selama 20 hari dan lebah dibiarkan mencari serbuk sari dan nektar di alam. Koloni kontrol tidak diberi PS.
Hasil penelitian menunjukkan bahwa A. cerana lebih menyukai PS A dan PS C dibandingkan PS B. Pemberian semua jenis PS meningkatkan keliling (1,03--1,51% per hari) dan jumlah honeycomb. Koloni yang diberi PS A mengalami peningkatan keliling honeycomb terbesar (1,51% per hari). Secara umum, lebah pekerja yang diberi PS dan kontrol mengalami kenaikan berat badan (28,39%--52,32%). Pada kontrol terdapat kenaikan kenaikan keliling honeycomb, akan tetapi tidak terdapat penambahan jumlah honeycomb.
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The research aimed to make pollen substitutes preferred by and increase the productivity of A. cerana. Basic ingredients of pollen substitutes (PS) were soy flour and skim milk. There were three types of pollen substitutes, i.e. PS A contained basic ingredients, Candida parapsilosis CR057, and honey; PS B contained basic ingredients and sugar syrup; and PS C contained basic ingredients and honey. The pollen substitutes were fed to colonies of A. cerana for 20 days but they were allowed to forage on flowers. No PS was given to the control colonies.
The results showed that A. cerana preferred PS A and PS C to PS B. Increases of circumference (1.03--1.51% each day) and number of honeycombs were observed in colonies fed with all types of PSs. The increases of circumference of colonies fed PS A was greater than those of other PSs and control (1.51% each day). Generally, the weight of individual worker bees increased in colonies fed with PSs and control (28.39%--52.32%). There was an increase of the circumference of honeycombs in control but there was no addition of honeycomb.