Pengaruh Pemberian Pollen Substitute dan Nectar Substitute terhadap Produktivitas Lebah Madu Apis cerana Fab. di Desa Ciburial, Bandung = Effect of Feeding Pollen Substitute and Nectar Substitute on Productivity of Apis cerana Fab. Honeybees in Desa Ciburial, Bandung

Kristina Hersandi, author

Abstrak

Penelitian bertujuan mengetahui pengaruh pemberian Pollen Substitute (PS) dan Nectar Substitute (NS) terhadap produktivitas Apis cerana, dan menganalisis kualitas madu sesuai Standar Nasional Indonesia. Pemberian PS dan NS berfungsi sebagai pengganti pakan alami lebah madu, yaitu pollen dan nectar. Pollen Substitute dibuat dari biomassa basah khamir Saccharomyces cerevisiae dan NS dari sirup nanas. Pakan diberikan dengan cara mencampurkan 2 gr PS dan 50 ml NS. Pada penelitian digunakan 10 koloni lebah madu: lima koloni sebagai kontrol dan lima koloni untuk perlakuan, seluruh koloni dibiarkan tetap mencari pakan alaminya. Pollen substitute dan NS diberikan setiap hari selama 2 periode (6 minggu per periode). Produktivitas lebah madu diamati setiap periode. Analisis kualitas madu dilakukan setelah 6 minggu. Hasil pengamatan pada dua periode menunjukkan penambahan keliling sisir madu dan jumlah sisir madu pada koloni perlakuan lebih besar dibandingkan kontrol. Meskipun demikian hasil uji T menunjukkan pemberian perlakuan tidak berbeda nyata terhadap kontrol (P>0,05). Rerata kenaikan keliling sisir madu dan jumlah sisir madu berturut–turut pada koloni kontrol sebesar 37 ± 23,42 cm dan 0,75 ± 0,95 buah (periode 1); 172,5 ± 79,65 cm dan 3,5 ± 1,73 buah (periode 2). Sedangkan pada koloni yang diberi PS dan NS sebesar 52 ± 55,37 cm dan 1,25 ± 1,5 (periode I); 199,5 ± 79,41 cm dan 5 ± 2,16 buah (periode 2). Volume madu yang dihasilkan koloni perlakuan lebih banyak dibandingkan kontrol, baik pada periode 1 maupun periode 2. Hasil analisis kualitas madu kontrol dan yang diberi PS dan NS sesuai dengan SNI 8664:2018. Pemberian PS dan NS mampu mempertahankan dan meningkatkan produktivitas koloni A. cerana yaitu pada keliling sisir, jumlah sisir, volume madu, dan kekuatan koloni.

.....The aims of this study were to examine the effect of pollen substitute (PS) and nectar substitute (NS) on the productivity of Apis cerana colonies and the quality of honey according to Indonesian National Standard for honey. Provision of PS and NS serves as a substitute for natural pollen and nectar. Pollen Substitute was prepared from wet biomass of yeast Saccharomyces cerevisiae and NS from pineapple syrup. The feed were given to the colony by mixing 2 g of PS and 50 ml of NS. Ten honeybee colonies were used in this study, five colonies were used as feeding trials and five colonies as control, and they were allowed to forage on flowers. Pollen substitute and nectar substitute were provided to the colonies every day for two periods (total 12 weeks, six weeks per period). Honey quality analysis was performed after six weeks. The results of provision of PS and NS in two periods to the colonies showed the greater than the control in their increasing of honeycomb circumference and the number of honeycombs. However, the results of the T test showed that the provision of PS and NS was not significantly different from the control (P>0,05). The average increase in the honeycomb circumference and the number of honeycombs in control colonies were 37 ± 23.42 cm and 0.75 ± 0.95 pieces (period 1); 172.5 ± 79.65 cm and 3.5 ± 1.73 pieces (period 2). Meanwhile, the colonies fed on PS and NS were 52 ± 55.37 cm and 1.25 ± 1.5 (period 1); 199.5 ± 79.41 cm and 5 ± 2.16

pieces (period 2). The yield of honey produced from colonies fed on PS and NS was higher than control colonies, both in periods 1 and 2. The quality of honey produced by the colony fed on PS and NS met the criteria of the Indonesian National Standard for honey SNI 8664:2018. This study revealed that the provision of PS and NS was able to maintain and increased the productivity of A. cerana colonies, in terms of honeycomb circumference, number of honeycombs, honey yield, and colony strength.</p>