

## RINGKASAN

Budidaya lebah klanceng sudah banyak dilakukan di beberapa wilayah di Indonesia. Lebah *Tetragonula biroi* merupakan salah satu jenis lebah tanpa sengat (*stingless bee*) yang populer dengan nama lebah klanceng. Budidaya lebah *T. biroi* relatif mudah karena tidak memerlukan lahan yang luas dan sumber pakan yang beragam, tidak memerlukan perawatan yang intensif atau peralatan khusus, tidak menyengat, relatif tahan terhadap hama dan penyakit, tidak ada jeda produksi, serta mudah beradaptasi dengan lingkungan baru. Desa Langgongsari, Kecamatan Cilongok, Kabupaten Banyumas merupakan salah satu desa yang memiliki kekayaan alam dan kondisi vegetasi yang beragam sehingga cocok untuk budidaya lebah klanceng. Tanaman pekarangan (*home garden*) akan mendukung ketersediaan pakan lebah *T. biroi*. Penelitian ini bertujuan untuk mengetahui pola perkembangan jumlah sel anakan, sel madu dan sel polen di Desa Langgongsari, serta mengetahui korelasi perkembangan sel anakan, sel madu dan sel polen dengan suhu (dalam dan luar sarang), kelembapan udara, dan jumlah tanaman berbunga di sekitar sarang yang ada di lahan pekarangan Desa Langgongsari.

Penelitian ini dilakukan di dua lahan pekarangan warga yaitu RT.02/RW.02 dan RT.06/RW.06 Desa Langgongsari, Cilongok, Banyumas, Jawa Tengah. Metode penelitian yang digunakan adalah metode survei, dengan teknik *random sampling*. Jumlah sel anakan, sel madu, dan sel polen didokumentasikan dan dihitung setiap minggu selama 6 minggu. Variabel bebas meliputi suhu (suhu dalam dan luar sarang), kelembapan udara, dan jumlah tanaman berbunga di sekitar kotak sarang, sementara variabel terikat meliputi perkembangan koloni lebah *T. biroi*. Parameter yang diukur yaitu jumlah sel anakan, sel madu, sel polen, suhu (dalam dan luar sarang), dan kelembapan udara, serta jumlah tanaman berbunga. Data hasil penelitian dianalisis dengan analisis korelasi berganda menggunakan SPSS. Hasil penelitian yang diperoleh menunjukkan bahwa suhu dalam sarang dan jumlah tanaman berbunga di sekitar mempengaruhi perkembangan koloni.

**Kata kunci :** *Tanaman pekarangan, sel anakan, sel madu, sel polen, Tetragonula biroi.*

## SUMMARY

Melliponiculture has been widely practiced in several regions in Indonesia. *Tetragonula biroi* bee is one type of stingless bee that is popularly known as klanceng bee. *T. biroi* bee cultivation is relatively easy because it does not require extensive land and diverse feed sources, does not require intensive care or special equipment, does not sting, is relatively resistant to pests and diseases, there is no production lag, and easily adapts to new environments. Langgongsari Village, Cilongok Subdistrict, Banyumas Regency is one of the villages that has natural resources and diverse vegetation conditions that are suitable for klanceng bee cultivation. Home garden plants will support the availability of food for *T. biroi* bees. This study aims to determine the development pattern of the number of brood cells, honey cells and pollen cells in Langgongsari Village, and to determine the correlation of the development of brood cells, honey cells and pollen cells with temperature (inside and outside the nest), air humidity, and the number of flowering plants around the nest in the yard of Langgongsari Village.

This research was conducted in two residents' yards, namely RT.02/RW.02 and RT.06/RW.06 Langgongsari Village, Cilongok, Banyumas, Central Java. The research method used was survey method, with *random sampling* technique. The number of tiller cells, honey cells, and pollen cells were documented and counted every week for 6 weeks. Independent variables included temperature (temperature inside and outside the nest), air humidity, and the number of flowering plants around the nest box, while the dependent variable included the development of *T. biroi* bee colonies. Parameters measured were the number of tillering cells, honey cells, pollen cells, temperature (inside and outside the hive), and air humidity, as well as the number of flowering plants. The data were analyzed by multiple correlation analysis using SPSS. The results obtained showed that the temperature inside the hive and the number of flowering plants around affected colony development.

**Keywords:** *Home garden, tillering cells, honey cells, pollen cells, Tetragonula biroi.*