INTISARI

Seleksi ketahanan tanaman teh terhadap *H. bradyi* dapat dilakukan secara *in situ*, namun hasil seleksi *in situ* belum dapat digunakan untuk merepresentasikan sifat tahan, oleh karena itu perlu seleksi *ex situ* agar diperoleh informasi kesesuaian dengan hasil seleksi *in situ*, didapatkan klona PGL yang memiliki sifat tahan, dan diperoleh karakter yang menjadi indikator ketahanan tanaman teh terhadap *H. bradyi*. Penelitian dilakukan di Kebun PT. Pagilaran Afdeling Kayu Landak pada September 2020 sampai Januari 2021. Parameter yang digunakan meliputi tingkat serangan, karakter morfologi, dan karakter biokimia. Faktor perlakuan adalah delapan klona PGL, klona Gambung 7 dan TRI 2025 sebagai pembanding. Tahapan penelitian yaitu *rearing H. bradyi*, pengamatan di laboratorium, pembibitan, dan lapangan. Hasil pengamatan dianalisis menggunakan uji Dunnet dengan alpha 5%. Hasil penelitian menunjukan bahwa hasil seleksi secara *ex situ* sesuai dengan seleksi *in situ* dan dapat digunakan untuk mengkonfirmasi seleksi secara *in situ* berdasarkan intensitas serangan. Klona PGL 15 merupakan klona paling tahan berdasarkan seleksi *ex situ* dan *in situ*. Ketebalan epidermis dan kandungan asam salisilat merupakan indikator ketahanan tanaman teh terhadap serangan *H. bradyi*.

Kata kunci : Seleksi *ex situ*; ketahanan; infestasi; *H. bradyi*

ABSTRACT

Selection of the resistance of tea plants to *H. bradyi* can be done in situ, but the results of in situ selection cannot be used to represent resistance, therefore, ex situ selection is necessary in order to obtain information on conformity with the results of in situ selection, clones are obtained PGL which has resistant properties, and obtained characters that become indicators of tea plant resistance to *H. bradyi*. The research was conducted at PT. Pagilaran Afdeling Kayu Ladak from September 2020 to January 2021. The parameters used included attack rate, morphological characters, and biochemical characters. The treatment factors were eight PGL clones, Gambung 7 clones and TRI 2025 for comparison. The stages of the research were rearing *H. bradyi*, observations in the laboratory, nurseries, and the field. The results of the observations were analyzed using Dunnet's test with an alpha of 5%. The results showed that the results of ex situ selection were in accordance with in situ selection and could be used to confirm in situ selection based on attack intensity. PGL 15 clone was the most resistant clone based on ex situ and in situ selection. Epidermal thickness and salicylic acid content are indicators of tea plant resistance to *H. bradyi* attack.

Key words: Ex situ selection, resistance, infestation, *H. bradyi*