

EVALUASI KEEFEKTIFAN PENGENDALIAN TIKUS SAWAH DENGAN BURUNG PREDATOR *Tyto javanica javanica* DI KABUPATEN KULON PROGO

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INTISARI

Pemasangan gupon Burung Serak, *Tyto javanica javanica*, di Kabupaten Kulon Progo dilaksanakan sejak tahun 2015 sebanyak 65 unit, untuk pengendalian tikus sawah secara hayati menggunakan burung predator, namun keefektifan pengendalian khususnya tingkat hunian gupon belum dievaluasi. Penelitian bertujuan untuk mengetahui tingkat keefektifan pengendalian tikus sawah menggunakan Burung Serak. Lokasi penelitian di lima kecamatan, yaitu Kecamatan Nanggulan, Girimuyo, Kalibawang, Wates dan Lendah. Data sekunder tentang luas serangan hama tikus di Kabupaten Kulon Progo didapatkan dari Dinas Pertanian Kabupaten Kulon Progo. Data primer diperoleh dengan wawancara terhadap 30 petani responden yang diambil secara *purposive* dan *snow ball sampling* serta pengamatan langsung terhadap 64 gupon dengan metode sensus. Sensus tingkat hunian gupon oleh Burung Serak dilakukan dengan indikasi adanya burung, telur, bekas telur, pellet sisa pencernaan, bulu, dan *faeces*. Parameter keefektifan pengendalian tikus sawah menggunakan Burung Serak meliputi, penurunan luas serangan hama tikus sawah setelah pemasangan gupon, tingkat hunian gupon lebih dari 80%, persepsi dan sikap petani terhadap Burung Serak dalam mengendalikan tikus sawah. Uji $t_{\alpha 0,05}$, anova, analisis regresi linier ganda, dilakukan untuk menentukan signifikansi pengaruh berbagai faktor terhadap keefektifan pengendalian tikus sawah menggunakan Burung Serak. Hasil penelitian menunjukkan bahwa luas serangan tikus sawah berkurang signifikan dari 37,43 ha/tahun sebelum pemasangan gupon tahun 2015 menjadi seluas 18,57 ha/tahun. Seluruh gupon di Kabupaten Kulon Progo, sebanyak 84,39% dihuni oleh Burung Serak. Suhu dan kelembaban udara di dalam gupon berpengaruh dan berkorelasi negatif terhadap hunian gupon oleh Burung Serak. Petani responden 100% menyatakan bahwa pemanfaatan Burung Serak dengan pemasangan gupon merupakan cara yang tepat dan efektif untuk mengendalikan tikus sawah.

Kata kunci: *Tyto javanica javanica*, gupon, tikus sawah

EVALUATION OF EFFECTIVENESS OF RICE FIELD RAT USING *Tyto javanica javanica* REDATORY BIRD IN KULON PROGO REGENCY

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ABSTRACT

*Installation of nests boxes of the Barn Owl, *Tyto javanica javanica*, in Kulon Progo Regency had been carried out since 2015 as many as 65 units, for biological control of rice field rats using the predatory birds, but the effectiveness of control especially the level of nest occupancy had not been evaluated. The study aimed to determine the level of effectiveness of rice field rat control using the Barn Owl. Research locations in five districts, namely Nanggulan, Girimuyo, Kalibawang, Wates and Lendah sub-districts. Secondary data on areas of the rice field rat attack in Kulon Progo Regency was obtained from the Agricultural Service Office at Kulon Progo Regency. Primary data were obtained by two methods. Firstly, interviewing 30 respondent farmers taken by purposively and snow ball sampling methods. Secondly, direct observation of nest box occupancy by the Barn Owl on 64 nest boxes taken by census method. The nest box occupancy was indicated by presence of birds, eggs, egg shells, pellet, feathers and faeces. The effectiveness parameters of rice field rat control using the Barn Owl include, decreasing the area of pest attack after installation of nest box, nest box occupancy rate is more than 80%, farmers' perceptions and attitudes towards the Barn Owl in controlling rice field rats. $t_{\alpha 0,05}$ test, ANOVA, multiple linear regression analysis, were carried out to determine the significance of the influence of various factors on the effectiveness of rice field rat control using the Barn Owl. The results showed that the area of rice field rat attack was significantly reduced from 37.43 ha/year before the installation of nest box in 2015 to 18.57 ha/year after the nest box installation. All nest boxes in Kulon Progo Regency, as much as 84.39% were occupied by the Barn Owl. The air temperature and humidity inside the nest box significantly affected and negatively correlated to the nest box occupancy by the Barn Owl. Farmers' respondents 100% stated that the use of Barn Owl with the installation of nest boxes was an appropriate and effective control measure against the rice field rats.*

Keywords: *Tyto javanica javanica*, nest box, rice field rat