RINGKASAN

Padi (*Oryza sativa* L.) merupakan tanaman pangan pokok hampir seluruh rakyat Indonesia. Produksi padi setiap tahunnya mengalami fluktuatif. Upaya peningkatan produksi padi di Indonesia menghadapi berbagai kendala, salah satunya yaitu hama. Wereng batang cokelat (WBC) merupakan hama yang penting karena mampu membentuk populasi cukup besar dalam waktu singkat dan merusak tanaman padi pada semua fase pertumbuhan (Marheni, 2004). Kumbang tomcat merupakan serangga predator yang bersifat polifag sehingga mampu untuk mengendalikan berbagai spesies serangga hama yang ada di persawahan termasuk WBC (Wagiman *et al*, 2014). Eksplorasi WBC dan kumbang tomcat di lapangan perlu dilakukan untuk mengetahui populasinya serta intensitas serangan WBC dan korelasinya terhadap peranan tomcat di lapangan. Uji predatisme kumbang tomcat terhadap mangsa utama (WBC) dan mangsa alternatif juga perlu dilakukan untuk mengetahui potensinya dalam mengendalikan WBC. Penelitian ini bertujuan untuk 1) mengetahui populasi kumbang tomcat dan WBC 2) mengetahui tingkat predatisme kumbang tomcat terhadap WBC 3) mengetahui tingkat ketertarikan predator kumbang tomcat untuk memangsa mangsa alternatif.

Penelitian dilaksanakan di Laboratorium Perlindungan Tanaman, Universitas Jenderal Soedirman, Purwokerto. Penelitian meliputi 1) eksplorasi kumbang tomcat dan WBC yang dilakukan di lima kecamatan di Kabupaten Banyumas masing-masing terdiri dari lima desa. Sampel ditentukan dengan metode *purposive random sampling*. Variabel yang diamati adalah populasi kumbang tomcat, populasi WBC dan intensitas serangannya. 2) uji predatisme kumbang tomcat terhadap wereng batang cokelat. Uji predatisme dilakukan dengan membandingkan tingkat predatisme terhadap 2 stadia WBC (nimfa dan imago) dan kerapatan mangsa (10, 20 dan 30). Variabel yang diamati yaitu lama mencari mangsa, jumlah mangsa yang dimangsa, persentase pemangsaan dan lama menangani mangsa. 3) uji preferensi kumbang tomcat terhadap mangsa alternatif dilakukan dengan membandingkan tingkat preferensi pemangsa kumbang tomcat terhadap 3 jenis mangsa yaitu *Aphis craccivora*, *Bemisia tabaci*, *Aphis gossypii*. Hasil penelitian eksplorasi menunjukkan populasi kumbang tomcat dan wereng batang cokelat dipengaruhi oleh lokasi yang berbeda baik antar kecamatan maupun antar desa. Tingkat predatisme kumbang tomcat terhadap wereng batang cokelat stadia nimfa lebih tinggi yaitu 6,9 individu/24 jam dibandingkan stadia imago yaitu 4,5/24 jam individu. Tingkat predatisme kumbang tomcat terhadap wereng batang cokelat dengan kerapatan 30 individu yaitu 7,6 individu/24 jam, lebih tinggi dibandingkan kerapatan 20 dan 10 individu masing-masing 5,5 dan 4,0 individu/24 jam. Mangsa alternatif yang paling disukai kumbang tomcat yaitu *Aphis gossypii* dengan jumlah mangsa yang dimangsa sebanyak 8 individu/24 jam.

SUMMARY

Rice (Oryza sativaL.) *is a staple food source for almost all Indonesian. Rice production is fluctuated for every year. The efforts to increase rice production in Indonesia face many obstacles and one of them is pest. Brown planthopper (BPH) is the important pest because it can form a huge enough population in short time and it can damage the rice plants at all stages of growth (Marheni, 2004). Rove beetle is a predator insect which is have a polifag characteristic, so that able to control various species of pest insect in rice fields including brown planthopper (Wagiman etal,2014). Exploration BPH and rove beetle in the field needs to be conducted to determine the population and the intensity of the BPH and its correlation toward rove function in the field. predatism test of rove beetle toward the main prey (BPH) and alternative prey also need to be conducted to determine its potential BPH. The research aims to 1) know the population of rove beetle and BPH 2) know the level of predatisme rove beetle against BPH 3) know the level of preferences rove beetle to alternative prey.*

The research was conducted in laboratory of Plant Protection, Jenderal Soedirman University, Purwokerto. The research was conducted from November 2015 up to June 2016. This research included, 1) exploration rove beetle and brown planthopper, conducted in five districts in Banyumas, each consisting of five village.s The sample was determined by purposive random sampling method. 2)predation test of tomcat beetle against BPH. Predation test was done by comparing the predatism level of the two BPH (nymphs and imago) and the density of prey (10, 20 and 30). Variables observed were duration in searching preys, number of consumed preys, percentage of predation dan duration handling preys 3) preference test tomcat beetle to prey alternatives prey. Preference test was done by comparing the degree of preference of predatory rove beetle against three types of preys, namely Aphis craccivora, Bemisia tabaci, Aphis gossypii.

The results of exploratory research showed rove beetle and brown planthopper was influenced by location vary both between districts and between villages. Population rove beetle highest in the district Jatilawang 1,55 individuals/clump. Brown planthopper population highest in districts Kebasen of 8.1 individuals/clump. Predation level rove beetle against BPH nymph phase of 6,9 individuals/24 hours better than imago phase of 4,5 individuals/24 hours. Predation level rove beetle against BPH with a density of 30 individuals was 7,6 individuals/24 hours better than the density of 20 and 10 individuals respectively 5,5 and 4,0 individuals/24 hours. The most preferred alternative prey of rove beetle was Aphis gossypii *as many 8 individuals/24 hours*