



The Usage of Fruit Extract of Lanta (*Excoecaria agallocha* L.) for Pest Control of *Paraecusmetus* sp. (Hemiptera: Lygaeidae) on Rice Plant (*Oryza sativa* L.)

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Abstract : The aims of this research were to know the spread of population and pest infestation of *Paraecusmetus* sp. in paddy rice in South Minahasa and Minahasa Districts, and the usage of *lanta* fruit extracts to control *Paraecusmetus* sp. The experiment was conducted in farmer rice fields in the two districts of Minahasa and South Minahasa of North Sulawesi Province, Indonesia. Observations of population and *Paraecusmetus* sp. attacks were conducted by surveying in each district that has rice crops aged of 2 to 2.5 months. For pest populations, samplings were carried out 5 times by double sweeping, and repeated 4 times. Pest attacks were calculated on area of 1 square meter, and it repeated 4 times. The experiments to control *Paraecusmetus* sp were done by diluted the pure *lanta* extracts with aguades, consisting of 5 treatments with different variations of concentration, and were repeated 3 times. Each treatment consist of 20 imago *Paraecusmetus* sp. put inside four clumps of rice paddy and covered with mosquito net. Variation of concentration were 5%, 10%, 15%, 20% and 0% (control). The results showed that *Paraecusmetus* sp. spread across along the rice paddy in Minahasa District and South Minahasa District. Population of *Paraecusmetus* sp. in South Minahasa District was higher than Minahasa District. The average population was 7.75 pests / 5 sweeps and the attack was 6.83 clump per 1 m² in South Minahasa District, while in Minahasa District the average population was 2.75 pest / 5 sweeping, and the attack was 4.11 clumps per 1 m² of rice crops. Increased mortality of *Paraecusmetus* sp. was directly proportional to the increase of the concentration of *lanta* fruit extracts. Concentrations of *lanta* fruit extracts that effectively killed *Paraecusmetus* sp. were concentrations of 15% (15 cc of pure extract and 85 cc distilled water) and 20% (20 cc of pure extract and 80 cc distilled water), because each had a mortality more than 50%, namely 60.0% and 73.3%, respectively.

Keywords : *lanta* fruit extract, *Excoecaria agallocha*, Pest Control, *Paraecusmetus* sp., *Oryzae sativa*.

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