RINGKASAN

Keong mas (*Pomacea canaliculata* L.) merupakan salah satu hama utama pada tanaman padi. Pengendalian terhadap hama ini kebanyakan menggunakan cara mekanis dan pestisida sintetik, namun demikian hasilnya kurang memuaskan dan dapat berdampak negatif terhadap lingkungan. Oleh karena itu, perlu dicari alternatif lain yang efektif tetapi ramah lingkungan dengan menggunakan pestisida nabati. Salah satu pestisida nabati adalah buah mengkudu. Penelitian ini bertujuan untuk 1) mengetahui potensi ekstrak buah mengkudu terhadap mortalitas keong mas, 2) mengetahui konsentrasi ekstrak buah mengkudu yang efektif untuk mengendalikan keong mas, 3) mengetahui kemampuan ekstrak buah mengkudu dalam menekan intensitas serangan keong mas pada tanaman padi, 4) mengetahui apakah pengaplikasian ekstrak buah mengkudu dapat menyebabkan fitotoksik terhadap tanaman padi.

Penelitian dilaksanakan di rumah kaca Fakultas Pertanian Universitas Jenderal Soedirman. Penelitian dilaksanakan dari bulan Agustus 2024 sampai Desember 2024. Penelitian dilakukan melalui empat tahap pengujian, antara lain uji pendahuluan, uji efektivitas konsentrasi ekstrak buah mengkudu terhadap mortalitas keong mas, uji pengaruh ekstrak buah mengkudu terhadap intensitas serangan keong mas, dan uji fitotoksisitas pemberian ekstrak buah mengkudu terhadap tanaman padi. Variabel yang diamati yaitu mortalitas keong mas, intensitas kerusakan tanaman padi, dan fitotoksisitas ekstrak buah mengkudu terhadap tanaman padi.

Hasil penelitian menunjukkan bahwa ekstrak buah mengkudu berpotensi digunakan untuk bahan pestisida nabati karena dapat menyebabkan mortalitas keong mas. Konsentrasi efektif yang dapat mengendalikan keong mas yaitu 12,049%, menyebabkan mortalitas keong mas sebesar 75%, ekstrak buah mengkudu konsentrasi 12,049% mampu menekan serangan keong mas mencapai 94,64% dan hasilnya lebih baik dibandingkan dengan moluskisida sintetik, sedangkan berdasarkan uji fitotoksisitas, ekstrak buah mengkudu tidak menyebabkan fitotoksisitas pada tanaman padi, sehingga aman jika diaplikasikan ke tanaman padi.

SUMMARY

Golden apple snail (Pomacea canaliculata L.) is one of the main pests of rice. Control of this pest mostly uses mechanical methods and chemical pesticides, however the results are less than satisfactory and can have a negative impact on the environment. Therefore, it is necessary to find other alternatives that are effective but environmentally friendly by using botanical pesticides. One of the plant based pesticides is noni fruit. Research was aimed 1) the potency of noni fruit extract on golden apple snail mortality, 2) determine the effective concentration of noni fruit extract to control golden apple snails, 3) determine the ability of noni fruit extract to suppress the intensity of golden apple snail attacks on rice, 4) determine whether the application of noni fruit extract can cause phytotoxicity to rice plants.

The research was conducted at the greenhouse of the Faculty of Agriculture, Jenderal Soedirman University. The research was conducted from August 2024 to December 2024. The research was conducted through four stages, including preliminary testing, the effectiveness of noni fruit extract concentration on golden apple snail mortality, the effect of noni fruit extract on the intensity of golden apple snail attacks, and phytotoxicity testing of noni fruit extract administration on rice plants. The variables observed were golden apple snail mortality, intensity of rice plant damage, and phytotoxicity of noni fruit extract on rice plants.

Results showed that noni fruit extract has the potency to be used as a botanical pesticide because it can cause mortality of golden apple snails. The effective concentration that can control golden apple snails is 12.049%, causing mortality of golden apple snails by 75%, noni fruit extract with a concentration of 12.049% can suppress golden apple snail attacks by 94.64% and the results are better than chemical molluscicides, while based on phytotoxicity tests, noni fruit extract does not cause phytotoxicity in rice plants, so it is safe if applied to rice plants.