

RINGKASAN

Keong mas (*Pomacea canaliculata* L.) merupakan salah satu hama utama pada tanaman padi. Pada umumnya, pengendalian keong mas dilakukan secara mekanis dan kimiawi. Namun, pengendalian dengan kedua cara tersebut masih kurang efektif sehingga perlu dicari pengendalian alternatif yang efektif dan ramah lingkungan, yaitu dengan moluskisida nabati dari kirinyuh (*Chromolaena odorata* L.). Tumbuhan ini mengandung metabolit sekunder yang berpotensi mengendalikan keong mas. Penelitian ini bertujuan untuk mengetahui potensi ekstrak daun kirinyuh dalam menyebabkan mortalitas pada keong mas, memperoleh konsentrasi efektif ekstrak daun kirinyuh dalam mengendalikan keong mas, mengetahui sejauh mana ekstrak daun kirinyuh mampu menekan intensitas serangan keong mas, dan mengetahui apakah aplikasi ekstrak daun kirinyuh dapat menyebabkan fitotoksik terhadap tanaman padi.

Penelitian dilaksanakan di rumah kaca Fakultas Pertanian Universitas Jenderal Soedirman pada bulan Oktober 2024 hingga Januari 2025. Penelitian ini terdiri dari empat uji, yaitu uji pendahuluan, uji pengaruh konsentrasi ekstrak daun kirinyuh terhadap mortalitas keong mas, uji pengaruh ekstrak daun kirinyuh terhadap intensitas serangan keong mas pada tanaman padi, dan uji fitotoksisitas ekstrak daun kirinyuh terhadap tanaman padi. Rancangan percobaan yang digunakan adalah Rancangan Acak Kelompok (RAK). Variabel yang diamati yaitu mortalitas keong mas, intensitas serangan keong mas, dan fitotoksisitas ekstrak daun kirinyuh terhadap tanaman padi.

Hasil penelitian menunjukkan bahwa ekstrak daun kirinyuh mampu menyebabkan mortalitas keong mas. Ekstrak daun kirinyuh 17,27% merupakan konsentrasi efektif dalam mengendalikan keong mas karena mampu menimbulkan mortalitas hingga 95%. Konsentrasi tersebut juga mampu menekan 96,87% intensitas serangan keong mas yang setara dengan kemampuan moluskisida kimia sintetik. Aplikasi ekstrak daun kirinyuh pada tanaman padi tidak menimbulkan fitotoksisitas karena tidak terdapat gejala nekrosis maupun penghambatan pertumbuhan tanaman.

SUMMARY

Golden snail (*Pomacea canaliculata* L.) is one of the main pests of rice plants. In general, golden snail control is done mechanically and chemically. However, control with both methods is still less effective so it is necessary to look for alternative controls that are effective and environmentally friendly, namely with plant molluscicides from kirinyuh (*Chromolaena odorata* L.). This plant contains secondary metabolites that have the potential to control golden snails. This study aims to determine the potential of kirinyuh leaf extract in causing mortality in golden snails, obtain effective concentrations of kirinyuh leaf extract in controlling golden snails, determine the extent to which kirinyuh leaf extract is able to suppress the intensity of golden snail attacks, and determine whether the application of kirinyuh leaf extract can cause phytotoxicity to rice plants.

The research was conducted in the greenhouse of the Faculty of Agriculture, Jenderal Soedirman University from October 2024 to January 2025. This study consisted of four tests, namely preliminary tests, tests of the effect of kirinyuh leaf extract concentration on the mortality of golden snails, tests of the effect of kirinyuh leaf extract on the intensity of golden snail attack on rice plants, and phytotoxicity tests of kirinyuh leaf extract on rice plants. The experimental design used was Randomized Group Design (RAK). The variables observed were the mortality of golden snails, the intensity of golden snail attack, and the phytotoxicity of kirinyuh leaf extract on rice plants.

The results showed that kirinyuh leaf extract was able to cause mortality of golden snails. The 17.27% kirinyuh leaf extract is an effective concentration in controlling golden snails because it is able to cause mortality up to 95%. This concentration is also able to suppress 96.87% of the intensity of the golden snail attack which is equivalent to the ability of synthetic chemical molluscicides. The application of kirinyuh leaf extract on rice plants did not cause phytotoxicity because there were no symptoms of necrosis or inhibition of plant growth.