

Intisari

Aphelenchoides besseyi merupakan nematoda parasit tanaman terutama tanaman padi dan dapat mengalami dormansi pada benih padi. Perlakuan fisik dan kimia pada benih merupakan cara untuk mengendalikan nematoda. Penelitian ini bertujuan untuk menentukan perlakuan benih yang efektif untuk menekan penyebaran *A. besseyi*. Pengujian dilakukan pada padi varietas Pak Tiwi-1 yang terserang *A. besseyi*. Perlakuan benih meliputi (1) *cold water treatment* (cwt) 5-10°C 24 jam + *hot water treatment* (hwt) 52°C 10 menit, (2) hwt 52°C 10 menit, (3) hwt 57°C 10 menit, (4) perendaman di air 25-30°C 24 jam, *seed dressing* dengan (5) karbosulfan 25 ST 2%, (6) benomil 50 WP 0,2% dan (7) imidakloprid 5 WP 2%. Hasil penelitian menunjukkan bahwa cwt 5-10°C 24 jam + hwt 52°C 10 menit dan hwt 57°C 10 menit mampu menyebabkan mortalitas *A. besseyi* namun menurunkan viabilitas benih. Gejala serangan *A. besseyi* pada tanaman padi 21 hst muncul di seluruh perlakuan. Nematoda tidak ditemukan di akar dan daun, tetapi ditemukan di tanah pada semua perlakuan. Perlakuan benih yang sesuai untuk menekan penyebaran *A. besseyi* dalam penelitian ini adalah perendaman di air 25-30°C 24 jam dan *seed dressing* dengan imidakloprid 5 WP 2% dengan mortalitas *A. besseyi* sebesar 48,67% dan 47,25%.

Kata kunci : *Aphelenchoides besseyi*, benih, padi, perlakuan fisik, perlakuan kimia.

Abstract

Aphelenchoides besseyi is a plant parasitic nematode, especially in rice plants and has the ability of dormancy in rice seeds. Physical and chemical treatments of seeds are the ways to control nematodes. This study aims to determine the effective seed treatment to suppress the distribution of *A. besseyi*. The experiment was conducted on rice variety of Pak Tiwi-1 that was attacked by *A. besseyi*. Seed treatments include (1) cold water treatment (cwt) 5-10°C 24 hours + hot water treatment (hwt) 52°C 10 min, (2) hwt 52°C 10 min, (3) hwt 57°C 10 (4) water immersion 25-30°C 24 hours, seed dressing with (5) carbosulfan 25 ST 2%, (6) benomyl 50 WP 0.2%, and (7) imidacloprid 5 WP 2%. The results showed that cwt 5-10°C 24 hours + hwt 52°C 10 minutes and hwt 57°C 10 minutes caused mortality of *A. besseyi* but decreased seed viability. The symptom of *A. besseyi* on the 21 hst rice plant appeared in all treatments. Nematodes were not found in roots and leaves, but were found in soil at all treatments. In this study, appropriate seed treatments to suppress the distribution of *A. besseyi* are water immersion 25-30°C 24 hours and seed dressing with imidacloprid 5 WP 2% which caused 48.67% and 47.25% mortality of *A. besseyi*.

Keywords: *Aphelenchoides besseyi*, seeds, rice, physical treatment, chemical treatment.