



Intisari

Bawang merah merupakan salah satu tanaman hortikultura penting yang banyak dibudidayakan di sejumlah provinsi di Indonesia. Salah satu penyakit penting pada tanaman bawang merah yaitu penyakit moler. Gejala tanaman yang terserang yaitu daun tanaman terlihat terpelintir. Perkembangan penyakit ini sangat dipengaruhi oleh faktor lingkungan terutama musim dan populasi mikroorganisme yang ada di dalam tanah. Penyakit moler disebabkan oleh *Fusarium* spp. Tujuan dari penelitian ini adalah untuk mengetahui keragaman jamur tanah pada pertanaman bawang merah berpenyakit moler di musim kemarau dan penghujan, dan membandingkan populasi jamur antagonis pada pertanaman bawang merah berpenyakit moler di musim kemarau dan penghujan. Penelitian ini terdiri dari survei lahan pertanaman bawang merah di kabupaten Bantul dan Nganjuk selama musim kemarau dan penghujan, menggunakan bawang merah kultivar Thailand, Bauji, Biru, dan Tiron. Setelah panen sampel tanah diambil dan jamur tanah diisolasi dengan metode seri pengenceran. Dari hasil isolasi didapatkan isolat jamur tanah yang kemudian diuji antagonis dengan jamur *Fusarium acutatum*. Dari hasil penelitian di lapangan diperoleh bahwa insidensi moler yang bisa diamati pada musim penghujan sebesar 36% dan musim kemarau tertinggi sebesar 10%. Dari hasil isolasi di daerah rizosfer bawang merah dijumpai jamur tanah dari genus *Aspergillus* spp dengan rata-rata total populasi lebih tinggi pada musim kemarau. Sedangkan hasil uji antagonis jamur tanah dapat menekan pertumbuhan *F. acutatum* hingga 42%.

Kata kunci: Bawang merah, moler, jamur tanah, *Aspergillus* spp.



Abstract

Shallot is one of the most important horticultural crops which are widely cultivated in several provinces in Indonesia. One of the important diseases of shallot crop is twisted disease. The symptom of affected plants is twisted leaves. The development of the disease is influenced by environmental factors, especially the weather and the population of microorganisms in soil. Shallot twisted disease is caused by *Fusarium* spp. The aim of this study was to compare the diversity of soil fungi on twisted diseased shallot, planting in the dry and rainy season, and to compare the population of antagonistic fungi on twisted diseased crop in the dry and rainy season. This study consisted of a survey of the shallot crop in the districts of Bantul and Nganjuk during the dry and the rainy season. Shallot cultivars used were Thailand, Bauji, Biru, and Tiron. After harvest, soil samples was taken and soil fungi were isolated by serial dilution method. From soil isolation, it was obtained a collection of fungal isolates. These fungal isolates were then tested with *F. acutatum*. The results showed that the incidence of twisted disease during rainy season was 36% and the dry season was 10%. The result of soil isolation showed that *Aspergillus* spp had higher population in the dry season. While the results of antagonistic test showed that the antagonistic soil fungi could decrease the growth of *F. acutatum* up to 42%.

Key words: Shallot, twisted disease, soil fungi, *Aspergillus* spp.