

INVENTORY OF FUNGI ASSOCIATED WITH POTATO PLANTS (*Solanum tuberosum* L.) IN POTATO PRODUCTION CENTRAL BANJARNEGARA REGENCY AND KARO REGENCY

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ABSTRACT

Potato (*Solanum tuberosum* L.) is one of the carbohydrate-containing food crops included in the tuber group. One of the constraints of the potato crop is a decrease in yield production caused by disease infected and planting suitability. Differences in location are thought to affect the type of pathogen and the spread of disease in different geographical areas. This study was conducted in the potato production centers of Kepakisan Village, Banjarnegara Regency, Central Java and Kuta Rayat Village, Karo Regency, North Sumatra with the aim of knowing the types of diseases and pathogens as well as the severity of intensity and incidence at these locations. Sampling using systematic sampling method by determining 5 plots or sample points, and purposive sampling method by sampling through visual observation. Samples of isolation results were then tested again with the provisions of Koch's Postulates. The types of pathogens found in the potato production centers of Banjarnegara Regency were 4 types of pathogens, namely *Phytophthora infestans*, *Fusarium* sp., *Aspergillus* sp., and *Penicillium* sp. while in Karo Regency 4 types of pathogens were found, namely *Phytophthora infestans*, *Fusarium* sp., *Rhizopus* sp., and *Nigrospora* sp. The highest intensity and disease incidence values in the Banjarnegara Regency center were found in potato plants aged 80 DAP with an intensity of 17.97% and an incidence of 98%, while in the Karo Regency center the highest disease intensity and disease incidence were found in potato plants aged 90 DAP with an intensity of 9.89% and an incidence of 76%.

Keyword: inventory, pathogen, potato plant

INVENTARISASI JAMUR YANG BERASOSIASI DENGAN TANAMAN KENTANG (*Solanum tuberosum* L.) DI SENTRA PRODUKSI KENTANG KABUPATEN BANJARNEGARA DAN KABUPATEN KARO

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ABSTRAK

Tanaman kentang (*Solanum tuberosum* L.) salah satu tanaman pangan yang mengandung karbohidrat yang termasuk dalam kelompok umbi-umbian. Salah satu kendala tanaman kentang yaitu penurunan produksi hasil yang disebabkan serangan penyakit dan kesesuaian penanaman. Perbedaan lokasi diduga mempengaruhi jenis patogen dan penyebaran penyakit pada lahan berbeda geografis. Penelitian ini dilakukan di sentra produksi kentang Desa Kepakisan, Kabupaten Banjarnegara, Jawa Tengah dan Desa Kuta Rayat, Kabupaten Karo, Sumatera Utara dengan tujuan untuk mengetahui jenis penyakit dan patogen serta keparahan intensitas dan insidensi pada lokasi tersebut. Pengambilan sampel menggunakan *systematic sampling method* dengan menentukan 5 plot atau titik sampel, serta *purposive sampling method* dengan pengambilan sampel melalui pengamatan visual. Sampel hasil isolasi kemudian dilakukan uji kembali dengan ketentuan Postulat Koch. Jenis patogen yang ditemukan di sentra produksi kentang Kabupaten Banjarnegara sebanyak 4 jenis patogen yaitu *Phytophthora infestans*, *Fusarium* sp., *Aspergillus* sp., dan *Penicillium* sp. sedangkan pada Kabupaten Karo didapatkan 4 jenis patogen yaitu *Phytophthora infestans*, *Fusarium* sp., *Rhizopus* sp., dan *Nigrospora* sp. Nilai intensitas dan insidensi penyakit tertinggi pada sentra Kabupaten Banjarnegara terdapat pada tanaman kentang dengan umur 80 HST intensitas sebesar 17.97% dengan insidensi 98% sedangkan pada sentra Kabupaten Karo intensitas penyakit dan insidensi penyakit tertinggi terdapat pada tanaman kentang berumur 90 HST dengan intensitas 9.89% dan insidensi 76%.

Kata Kunci: inventarisasi, patogen, tanaman kentang