

## **IDENTIFIKASI DAN PATOGENISITAS JAMUR *POWDERY MILDEW* PADA TANAMAN STROBERI (*Fragaria* spp.)**

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### **ABSTRAK**

*Powdery mildew* merupakan salah satu nama penyakit pada tanaman yang tersebar luas di dunia. Penyakit ini disebabkan oleh infeksi jamur *powdery mildew* yang berasal dari famili Erysiphaceae yang dapat menginfeksi daun, bunga, dan buah. Gejala awal ditandai dengan bercak-bercak putih di permukaan bawah dan atas daun. Jamur *powdery mildew* bersifat obligat parasit, yaitu jamur yang tidak dapat tumbuh tanpa adanya inang. Inang jamur *powdery mildew* bermacam-macam, yaitu gulma, tanaman hias, dan tanaman produktif yang salah satunya adalah tanaman stroberi. Infeksi jamur *powdery mildew* dapat menurunkan produktivitas tanaman stroberi dalam menghasilkan buah. Tujuan penelitian ini adalah mengidentifikasi jenis-jenis jamur *powdery mildew* yang menyerang tanaman stroberi, jenis jamur *powdery mildew* yang paling patogenik, dan varietas stroberi yang resisten. Pengambilan sampel dilakukan di daerah Balitjestro-Batu, Bumiaji-Batu, dan Banyuroto-Magelang pada bulan Juli 2015 sampai April 2016. Ada 10 varietas stroberi yang digunakan dalam penelitian ini. Sampel jamur *powdery mildew* dikarakterisasi secara morfologi, kemudian dilakukan uji patogenisitas jamur dan resistensi 10 varietas stroberi. Hasil uji patogenisitas dan resistensi dianalisis menggunakan (ANOVA), jika ada beda dilanjutkan dengan tes Duncan's ( $P \leq 0,05$ ). Hasilnya menunjukkan bahwa jenis jamur *powdery mildew* yang menginfeksi stroberi adalah *Podosphaera aphanis*, tingkat patogenisitas jamur *P. aphanis* bervariasi tergantung pada varietas tanaman stroberi yang diinfeksi. Varietas stroberi yang paling resisten terhadap infeksi *P. aphanis* adalah *Stroberi hitam*.

**Kata kunci :** *Stroberi, Resistensi, Powdery mildew, Patogenisitas*

## IDENTIFICATION AND PATHOGENICITY OF POWDERY MILDEW FUNGI IN STRAWBERRIES PLANTS (*Fragaria* spp.)

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### ABSTRACT

*Powdery mildew* is one of disease name of plant that spread around the world. This disease caused by *powdery mildew* fungi infection which come from Erysiphaceae family that can infect leaves, flower, and fruit. The initial symptoms are characterized by white patches on the under and upper sides of leaves. *Powdery mildew* fungi is parasite obligate, fungi which cann't grow without host. There are many kinds of *powdery milldew* fungi host, that is weeds, ornamental plant, and productive plant which one of them is strawberries plant. Infection of *powdery mildew* fungi can decrease productivity of strawberries to produce fruit. The aim of this study was to identify the types of powdery mildew fungi which attack strawberry plants, powdery mildew fungus species most pathogenic, and resistant strawberries variety. Sampling was carried out in the area of Balitjestro-Batu, Bumiaji-Batu, and Banyuroto-Magelang in July 2015 to April 2016. There were 10 varieties of strawberry that used in this research. *Powdery mildew* fungi samples were characterized morphologically, after that fungal pathogenicity and resistance test of 10 varieties were done. Pathogenicity and resistance test were analysed by (ANOVA), there was differences, it was continued with Duncan's test ( $P \leq 0.05$ ). The result showed that species of *powdery mildew* fungus infected strawberries was *Podosphaera aphanis*, the level pathogenicity of *P. aphanis* fungus varies depending on the varieties of strawberry plants were infected. The resistant strawberry variety to infection of *P. aphanis* was *Stroberi hitam*.

**Keywords:** Strawberry, Resistance, *Powdery mildew*, Pathogenicity