

SIFAT PARASITISME, POLA DAN INTENSITAS SERANGAN BENALU PADA UJI SUMBER BENIH JATI DAN UJI KETURUNAN PANGGAL BUAYA DI WANAGAMA GUNUNGKIDUL

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INTISARI

Gangguan biotik pada hutan tanaman dapat disebabkan oleh tumbuhan parasit. Benalu merupakan tumbuhan hemiparasit yang menggantungkan sebagian hidupnya pada tanaman inang dan berpotensi mengakibatkan kematian pucuk bahkan kematian tanaman inang. Penelitian ini bertujuan untuk mengetahui sifat parasitisme, pola serangan, dan intensitas serangan benalu.

Penelitian dilakukan pada Pertanaman Uji Sumber Benih Jati (*Tectona grandis*) dan Uji Keturunan Panggal Buaya (*Zanthoxylum rhetsa*) di Petak 17, KHDTK Wanagama I, Gunungkidul, Yogyakarta. Pengambilan data dilakukan secara sensus pada 5 blok pertanaman jati dan panggal buaya. Blok panggal buaya dipilih berdasarkan estimasi serangan benalu tertinggi. Sifat parasitisme benalu diidentifikasi berdasarkan pola parasit, pola serangan benalu dengan pola persebaran, dan intensitas serangan benalu menggunakan metode TMR (*True Mistletoe Rating*) dimodifikasi.

Sifat parasitisme benalu pada Pertanaman Uji Sumber Benih Jati yaitu *direct one parasitism*, *double parasitism*, dan *hiperparasitism*; dengan jenis benalu *Dendrophthoe pentandra*, *Macrosolen cochinchinensis*, *Scurrula atropurpurea*, dan *Viscum articulatum*; pola serangan benalu mengelompok (Id=2,64) mendominasi tajuk atas (50%) dan percabangan plagiotrop (58,14%); dan intensitas serangan benalu tergolong agak ringan (TMR=0,20; TMI=1,86; LS=10,68%; *branch dieback*=43,60%). Sifat parasitisme benalu pada Pertanaman Uji Keturunan Panggal Buaya yaitu *direct one parasitism* dan *double parasitism*; dengan jenis benalu *Scurrula atropurpurea*, *Scurrula ferruginea*, dan *Macrosolen cochinchinensis*; pola serangan benalu mengelompok (Id=6,42) mendominasi tajuk bawah (34,75%) dan percabangan ortotrop (73,73%); dan intensitas serangan benalu tergolong agak ringan (TMR=0,40; TMI=2,09; LS=19,18%; *branch dieback*=77,97%).

Kata kunci: Jati, Panggal buaya, Benalu, TMR, Sifat parasitisme, Pola serangan, Intensitas serangan

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PARASITISM, PATTERN AND INTENSITY OF MISTLETOE
INFESTATION IN TEAK SEED SOURCE TRIAL AND INDIAN PRICKLY
ASH PROGENY TRIAL IN WANAGAMA GUNUNGKIDUL

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ABSTRACT

Biotic disturbance caused by parasitic plants is critical for forest plantation. Mistletoe is a hemiparasitic plant which can survive by relying on its host for water and nutrient, subsequently lead to branch dieback and eventually host death. The research aims to identify parasitism, infestation pattern, and intensity of mistletoe infestation.

The research was conducted in teak seed source trial (*Tectona grandis*) and indian prickly ash progeny trial (*Zanthoxylum rhetsa*) at site 17th, KHDTK Wanagama I, Gunungkidul, Yogyakarta. Data was collected using the census method in 5 blocks of both stand. Block determination for indian prickly ash was based on the estimation of high mistletoe infestation. Parasitism of mistletoe based on pattern of parasite, infestation pattern with distribution, and intensity of mistletoe infestation using True Mistletoe Rating (TMR).

The parasitism of mistletoe in the teak seed source trial were *direct one parasitism*, *double parasitism*, and *hiperparasitism*; composed of *Dendrophthoe pentandra*, *Macrosolen cochinchinensis*, *Scurrula atropurpurea*, and *Viscum articulatum*; infestation pattern was classified as clustered (Id=2,64) mostly discovered on the upper crown (50%) and plagiotropic branch (58,14%); and classified as rather light infestation (TMR=0,20; TMI=1,86; LS=10,68%; *branch dieback*=43,60%). The parasitism of mistletoe in indian prickly ash progeny trial were *direct one parasitism* dan *double parasitism*; with mistletoe *Scurrula atropurpurea*, *Scurrula ferruginea*, dan *Macrosolen cochinchinensis*; infestation pattern was classified as clustered (Id=6,42) mostly discovered on lower crown (34,75%) and ortotropic branch (73,73%); and classified as rather light infestation (TMR=0,40; TMI=2,09; LS=19,18%; *branch dieback*=77,97%).

Keywords: Teak, Indian prickly ash, Mistletoe, TMR, Parasitism, Infestation pattern, Intensity of infestation

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