



Intisari

KETAHANAN BEBERAPA VARIETAS JAGUNG TERHADAP PENYAKIT BULAI

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Penggunaan varietas tahan bulai lebih dianjurkan digunakan dalam pengendalian penyakit bulai dibandingkan dengan penggunaan fungisida yang tidak efektif dan tidak ramah lingkungan. Penelitian ini bertujuan untuk mengetahui ketahanan beberapa varietas jagung terhadap penyakit bulai. Varietas yang digunakan meliputi BS 0114, BS 0214, BS 0314, PAC 105, jagung manis dan BISI 2. Parameter yang diamati adalah insidensi dan intensitas penyakit, kandungan klorofil, kerapatan stomata dan berat kering. Data yang diperoleh diuji dengan analisis varians (ANOVA) dan uji lanjut dengan *Duncan's Multiple Range Test* (DMRT). Hasil penelitian ini menunjukkan bahwa varietas PAC 105, BS 0214 dan BS 0314 merupakan varietas tahan, sedangkan varietas BS 0114, jagung manis dan BISI 2 merupakan varietas yang rentan. Varietas tahan jagung PAC 105 memiliki kerapatan stomata paling rendah yaitu $65,353/\text{mm}^2$, dan kerapatan stomata paling tinggi dimiliki oleh varietas rentan jagung manis yaitu $110,79/\text{mm}^2$. Kerapatan stomata berkorelasi positif dengan intensitas penyakit dengan koefisien korelasi (r) sebesar 0,72526. Semakin tahan suatu varietas jagung terhadap bulai mempunyai kandungan klorofil dan berat kering yang semakin tinggi. Varietas PAC 105 mempunyai kandungan klorofil dan berat kering tertinggi, sedangkan varietas jagung manis mempunyai kandungan klorofil dan berat kering terendah.

Kata kunci : jagung, varietas tahan, bulai, klorofil, kerapatan stomata



Abstract

RESISTANCE OF SEVERAL VARIETIES OF MAIZE AGAINST DOWNY MILDEW DISEASE

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Resistant varieties are more advisable to use as a control against downy mildew compared with fungicides which is not effective and not environmental friendly. This study aimed to determine resistance of some varieties of maize against downy mildew. Varieties used were BS 0114, BS 0214, BS 0314, PAC 105, Sweet Corn and BISI 2. Parameters measured were disease incidence and disease intensity, chlorophyll content of leaves, stomatal density and plants dry weight. Data were tested by analysis of variance (ANOVA) and Duncan's Multiple Range Test (DMRT). The results indicated that PAC 105, BS 0214 and BS 0314 were resistant varieties, while BS 0114, Sweet Corn and BISI 2 were susceptible. PAC 105 variety had lowest stomatal density ($65,353/\text{mm}^2$), and Sweet Corn variety had highest stomatal density ($110,79/\text{mm}^2$). Stomatal density was positively correlated with the disease intensity, and had correlation's coefficient (r) as much as 0,72526. The resistant varieties were higher in chlorophyll content and dry weight compared to others. PAC 105 variety had highest chlorophyll content and plant dry weight, while Sweet Corn variety had lowest chlorophyll content and plant dry weight.

Keywords: corn, resistance, downy mildew, chlorophyll, stomata