



Intisari

RESPONS 15 VARIETAS TOMAT (*Solanum lycopersicum*L.)
TERHADAP INFEKSI VIRUS

SATRIO TEGUH PRABOWO
11/318118/PN/12429

Saat ini *Begomovirus* dan *Crinivirus* banyak menyerang tanaman tomat dan sangat merugikan serta sulit dikendalikan. Menanam varietas tahan dapat sebagai salah satu alternatif untuk mencegah serangan virus. Penelitian ini bertujuan untuk mengetahui respons 15 varietas tomat terhadap infeksi virus.

Penelitian ini dilakukan di rumah kaca Fakultas Pertanian UGM dan dilahan petani di Dusun Cepit, Harjobinangun, Pakem. Bibit 15 varietas tomat di semai di ruang kedap serangga selanjutnya dipindah tanam di lahan endemis kutu kebul. Parameter pengamatan meliputi kejadian penyakit, intensitas penyakit, tinggi tanaman, diameter batang, bobot buah, jumlah buah dan bentuk buah. Hasil pengamatan dianalisis menggunakan *Duncan Multiple Range Test* (DMRT) 0,05.

Hasil penelitian menunjukkan bahwa dari 15 varietas yang diuji memiliki tingkat ketahanan yang berbeda terhadap infeksi virus. Varietas Servo menunjukkan respons yang tahansedangkan varietas Martha, Precious, Kingkong, Tomboy menunjukkan respons yang sangat rentan. Pada varietas Martha, Precious, Kingkong, Tomboy akibat infeksi virus tanaman menjadi lebih pendek, diameter batang kecil, bobot dan jumlah buah lebih rendah dibandingkan varietas Servo. Selain bobot dan jumlah buah yang berkurang pada tanaman yang terinfeksi virus menyebabkan buah berubah bentuk (malformasi) sehingga menyebabkan penurunan kualitas buah.

Kata kunci: *Begomovirus*, *Crinivirus*, respons ketahanan, 15 varietas tomat



Abstract

RESPONSE OF 15 VARIETIES OF TOMATOES (*Solanum lycopersicum*L.)
TO VIRAL INFECTION

SATRIO TEGUH PRABOWO

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Currently Begomovirus and Crinivirus attack many tomato plants and is very harmful and difficult to control. Planting resistant varieties can be as an alternative to prevent virus attacks. This study aims to determine the response of 15 varieties of tomatoes to viral infections.

The research was conducted in greenhouse of Faculty of Agriculture UGM and in farmers' land in Dusun Cepit, Harjobinangun, Pakem. Seedlings of 15 tomato varieties sown in the insect proof chamber then move to endemic land of whiteflies. Parameters include the incidence of disease surveillance, disease intensity, plant height, stem diameter, fruit weight, fruit number and fruit shape. The observed results were analyzed using Duncan Multiple Range Test (DMRT) 0.05.

The results showed that the 15 varieties tested had different levels of resistance to viral infections. Varieties of Servo show a resistant response whereas Martha, Precious, Kingkong, Tomboy varieties exhibit highly susceptible responses. In the varieties of Martha, Precious, Kingkong, Tomboy due to infection of plant virus becomes shorter, stem diameter, weight and number of fruit is lower than Servo varieties. In addition to the weight and the amount of fruit that is reduced in plants infected with the virus causes the fruit to change shape (malformation), causing a decrease in fruit quality.

Keywords: Begomovirus, Crinivirus, defense response, 15 varieties of tomatoes