

INTISARI

Virus utama yang menyerang pada pertanaman bawang merah adalah genus Potyvirus yaitu *Onion yellow dwarf virus* (OYDV), *Leek yellow dwarf virus* (LYSV), dan *Shallot yellow stripe virus* (SYSV); Carlavirus yaitu *Garlic common latent virus* (GCLV) dan *Shallot latent virus* (SLV); serta Allexivirus. Penelitian ini bertujuan untuk mengetahui tingkat keterbawaan virus pada sembilan varietas bawang merah berasal dari benih *True-Seed Shallot* (TSS). Insidensi penyakit diamati pada masing-masing varietas dari tiga ulangan dengan sampel sejumlah 98 tanaman. Tanaman bergejala terinfeksi virus, dideteksi dengan teknik *Reverse Transcriptase – Polymerase Chain Reaction* (RT-PCR) menggunakan pasangan primer deteksi Potyvirus (MJ1 – MJ2) dan Carlavirus (AlcarF – Poty1). Insidensi penyakit pada tanaman bawang merah asal benih TSS diketahui mencapai angka 1% – 10%. Hasil amplifikasi dengan primer AlcarF – Poty1 diketahui bahwa tujuh varietas bawang merah asal TSS yang ditanam serta lima varietas dari komposit biji TSS positif terinfeksi Carlavirus. Hasil amplifikasi menggunakan primer MJ1 – MJ2 diketahui bahwa sembilan varietas bawang merah asal TSS yang ditanam serta komposit biji TSS tidak terinfeksi Potyvirus. Temuan ini merupakan laporan pertama keterbawaan virus melalui biji pada pertanaman bawang merah asal benih TSS di Indonesia.

Kata kunci: bawang merah, TSS, *seed-borne* virus

ABSTRACT

Shallot crop are widely infected by prominent viruses of the genus Potyvirus i.e. *Onion yellow dwarf virus* (OYDV), *Leek yellow dwarf virus* (LYSV), *Shallot yellow stripe virus* (SYSV); Carlavirus i.e. *Garlic common latent virus* (GCLV) and *Shallot latent virus* (SLV); and Allexivirus. The aim of this study is to determine the infection level of virus on nine varieties of shallots derived from True-Seed Shallot (TSS). Disease incidences were observed for each variety with three replications and plants samples amounting to 98. Viruses on the symptomatic plants were detected by the Reverse Transcriptase - Polymerase Chain Reaction (RT-PCR) technique using primer pairs of Potyvirus (MJ1 - MJ2) and Carlavirus (AlcarF - Poty1). The disease incidences in shallot plants from TSS reached 1% - 10%. Results of the amplification with the AlcarF-Poty1 primer revealed that seven varieties of shallot from TSS planted and five varieties from TSS composite seeds were positively infected by Carlavirus. Results of amplification using MJ1-MJ2 primer revealed that nine varieties of shallot from TSS planted and the TSS composite seeds were not infected by Potyvirus. This is the first report on seed-borne virus on shallot crop from TSS in Indonesia.

Key words: shallot, TSS, seed-borne viruses