

SUMMARY

Black pepper (*Piper nigrum* L) in Sri Lanka is affected by *Piper* yellow mottle badnavirus (30 x 130 nm). Polymerase chain reaction using, the primer pair, PYMV F₁ and PYMV R₁ detected PYMV in symptomatic as well as asymptomatic leaves of black pepper. Therefore, PCR was used to screen black pepper mother vines against PYMV and certify them as PYMV free vines. PYMV infected mother vines, including symptomatic and asymptomatic vines in Matale, Walpita and Vennoruwa nurseries ranged from 7.6% to 12% and confirmed the risk of dissemination PYMV through planting material. Dissemination of PYMV through above nurseries was controlled by roguing infected vines at the time of detection.

Host range studies were conducted to study the susceptibility/resistance of common weeds and the wild *Piper* species available. Wild *Piper* spp. and the weeds were screened by graft inoculation and mechanical transmission respectively. Confirmation of alternate hosts was done by PCR. *Piper chuyva*, *P. sylvester* and *P. longum* showed virus-like symptoms and 600 bp size PCR products of virus origin obtained from above species were confirmed as alternate hosts. This is the first report of above three *Piper* spp. as alternate hosts of PYMV. Therefore, recommendations were made to remove these three spp. near new plantings of black pepper. *P. sriboea* found to be resistant to PYMV infection and suggested to include *P. sriboea* in the breeding programme only if it is compatible in pollination with cultivated black pepper.

Aphis gossypii, *Amrasca devastans* and *Liothrips karnyi* confirmed as non-vectors of PYMV. Therefore, there is no risk of PYMV spread by these insects.