

FIRST REPORT OF CUCUMBER MOSAIC VIRUS

INFECTING *PAEONIA HYBRIDA* IN SERBIA

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INTRODUCTION

Paeonia hybrida (family: Paeoniaceae), the garden peony, is a flowering plant known for its large, showy flowers and is often grown in many home gardens.



Symptomatic leaves - outdoor

MATERIAL AND METHODS

- In May 2021, two peony plants with virus-like symptoms, including chlorotic ringspot and severe mosaic of leaves were observed in a private garden in Zemun, District of Belgrade, Serbia.
- Symptomatic leaves were analyzed by (DAS)-ELISA against known viruses of peonies: cucumber mosaic virus (CMV), tobacco rattle virus (TRV), alfalfa mosaic virus (AMV) and tomato spotted wilt virus (TSWV).



Symptomatic leaves - detail



Symptomatic leaves

RESULTS

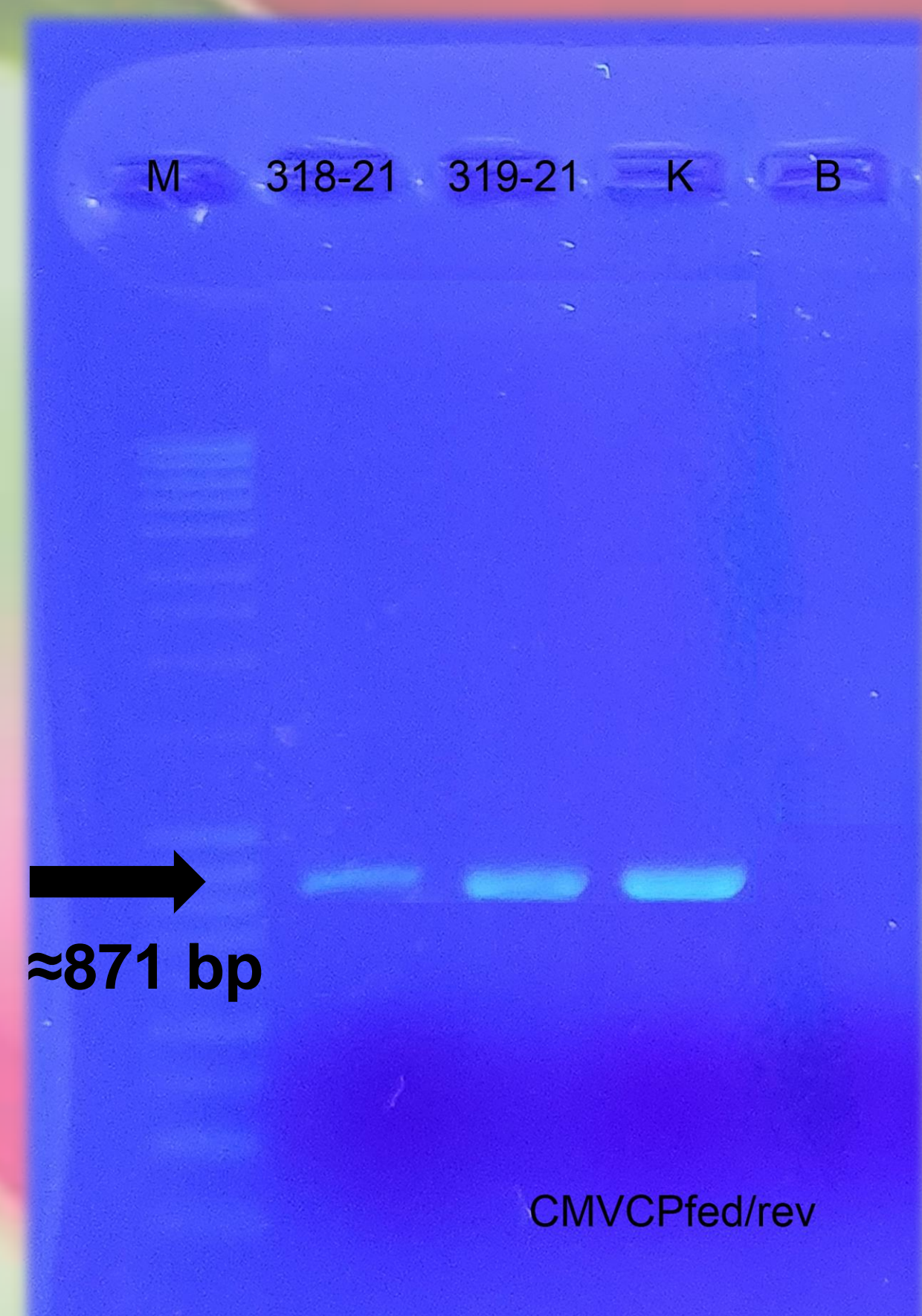
- CMV was detected serologically in both peony samples
- The ELISA-positive sample (isolate 318-21) was mechanically inoculated onto five plants each of two test species
 - *Chenopodium quinoa* - chlorotic local lesions
 - *Nicotiana glutinosa* - severe mosaic and leaf malformations
- Confirmation of CMV infection - reverse transcription (RT)-PCR with CMV-specific primer pair (CMVCPfwd and CMVCPrev) which amplifies an 871-bp fragment of the entire coat protein (CP) gene and part of 3'- and 5'-UTRs
- A product of the correct predicted size was obtained in all naturally and mechanically infected plants and in the positive control
- No amplicon was recorded in the negative control



Chlorotic local lesions on *Ch. quinoa*



Severe mosaic and leaf malformations on *N. glutinosa*



CONCLUSION

To our knowledge this is the first report of CMV in peony in Serbia.

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