DISEASE NOTE

FIRST REPORT OF *GARLIC VIRUS A, B* AND *C* IN GARLIC IN POLAND

M. Chodorska, P. Nowak, M.S. Szyndel, E. Paduch-Cichal and K. Sala-Rejczak

Warsaw University of Life Sciences - SGGW, Faculty of Horticulture and Landscape Architecture, Department of Plant Pathology, Nowoursynowska 159, 02-776, Warsaw, Poland

Garlic (*Allium sativum*) can be infected by many viruses, including members of the genus *Allexivirus* (Adams *et al*., 2011). A virus survey was conducted in eleven garlic fields located in different regions of Poland. Leaf and bulb samples from 80 plants showing mosaic, deformation and yellow stripes during the 2011-2012 growing season were tested by DAS-ELISA using antibodies to *Garlic virus A* (GarV-A), *Garlic virus B* (GarV-B) and *Garlic virus C* (GarV-C) supplied by the Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures (Braunschweig, Germany). Results indicated that 38 samples (47.5%) were infected with GarV-A, 49 samples (61.3%) with GarV-B and 14 samples (17.5%) with GarV-C. RT-PCR was used to confirm the occurrence of the three viruses in symptomatic garlic with total RNA extracted from the leaves of 20 DAS-ELISA-positive and five negative samples using the Spectrum™ plant total RNA kit (Sigma, USA), the Titan one tube RT-PCR system (Roche, Switzerland) and primer pairs designed in the conserved region of ORF5 (coat protein) and ORF6 (nucleic acid binding protein) of GarV-A (ACPF/ACPR 5'-ATGTCGAATCCAACTCAGTCG-3' and 5'-AGACCATGTTGGTGGCGCG-3'), GarV-B (BCPF/BCPR 5'-TGACGGGCAAACAGCAGAATAA-3' and 5'-ATATAGCTTAGCGGGTCCTTC-3') and GarV-C (CCPF/CCPR 5'-TTGCTACCACAATGGTTCCTC-3' and 5'-TACTGGCACGAGTTGGGAAT-3'). Products of the expected size (444 bp for GarV-A, 576 bp for GarV-B and 679 bp for GarV-C) were amplified only from the DAS-ELISA-positive samples. To our knowledge, this is the first report of GarV-A, GarV-B and GarV-C in garlic in Poland.

Adams M.J., Candresse T., Hammond J., Kreuze J.F., Martelli G.P., Namba S., Pearson M.N., Ryu K.H, Vaira A.M., 2011. Genus *Alphaflexiviridae*. In: King A.M.Q., Adams M.J., Carstens E.B., Lefkowitz E.J. (eds). Ninth Report of the International Committee on Taxonomy of Viruses, pp. 904-919. Elsevier/Academic Press, Amsterdam, The Netherlands.

Corresponding author: M. Chodorska
Fax: +48. 2259320
E-mail: maria_chodorska@sggw.pl

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DISEASE NOTE

FIRST REPORT OF PURPLE SPOT DISEASE OF *ASPARAGUS OFFICINALIS* IN TURKEY

G. Özer[1] and H. Bayraktar[2]

[1] Abant Izzet Baysal University, Bolu 14280, Turkey
[2] Ankara University, Faculty of Agriculture, Department of Plant Protection, Ankara 06110, Turkey

In the course of a survey to determine the fungal pathogens of asparagus in Balıkesir province (north-western Turkey) brown sunken lesions with dark purple margins were observed on the spears. Pseudothecia and ascospores were looked for in overwintering plant debris. Diseased tissues were surface-sterilized in 1% sodium hypochlorite for 2 min and placed on potato dextrose agar medium. The isolated fungus was identified as *Stemphylium vesicarium* based on morphological traits (Ellis, 1971), i.e. brown, oblong to broadly ellipsoidal and verruculose conidia (20 to 45×15 to 22 µm), with cross and longitudinal septa; pale to light brown conidiophores with a dark smooth or minutely verruculose band; bitunicate and clavate asci (190 to 150×25 to 33 µm); light brown and ellipsoidal ascospores (35 to 45×15 to 22 µm). The identification was confirmed comparing the sequence of a 544 bp product (accession No. JX397964) amplified from the ITS region of the fungus under study by PCR using the primers ITS1/4 (White *et al*., 1990) with that of a comparable region of *S. vesicarium* rDNA present in GenBank. Asparagus seedlings (45-day-old) were sprayed with a suspension of 5×10^4 conidia/ml, then covered with polyethylene bags for 48 h and kept for 21 days at 22±1°C and a 14 h photoperiod. Symptoms comparable to those seen in the field were obtained and the fungus was consistently re-isolated from the lesions. *S. vesicarium* (telemorph, *Pleospora herbarum*), is an asparagus pathogen first recorded in the USA (Lacy, 1982). To our knowledge, this is the first report of asparagus purple spot disease in Turkey.

Ellis M.B., 1971. Dematiaceous Hyphomycetes. Commonwealth Mycological Institute, Kew, London, UK.

Lacy M.L., 1982. Purple spot: a new disease of young asparagus spears, caused by *Stemphylium vesicarium*. *Plant Disease* **66**: 1198-1200.

Corresponding author: H. Bayraktar
Fax:+90.312.3187029
E-mail: bayrakta@agri.ankara.edu.tr

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