

DISEASE NOTE

**FIRST REPORT OF *GARLIC VIRUS D, E,*
AND *X* ON GARLIC IN POLAND****M. Chodorska, E. Paduch-Cichal, M.S. Szyndel
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Several viruses from the genus *Allexivirus*, family *Alphaflexiviridae*, infect garlic and other species of *Allium*. They commonly occur in multiple infections and are thought to be mite-transmitted (Lu *et al.*, 2008). A survey for viruses was done in garlic plants showing mosaic, deformation, and yellow stripes in 13 fields located in different regions of Poland during the 2011-2012 growing season. Total RNA was extracted from bulb tissue using a Spectrum plant total RNA kit (Sigma-Aldrich, USA) and tested for *Garlic virus D* (GarV-D), *Garlic virus E* (GarV-E), and *Garlic virus X* (GarV-X) by reverse RT-PCR using the transcriptase one-step RT-PCR kit (Roche, USA) and primers: (i) DCPF/DCPR 5'-AAGGAGCTACACCGAAGGAC-3' and 5'-TAAAGTCGTGTGGATGCATCAGA-3'; (ii) EF2/ER2 5'-TTGCTAGACCACCTCAGTATTGAGAA-3' and 5'-TATTGGGCGTACATCGGTGACTGT-3'; (iii) XF/XR 5'-GCGGTAATATCTGACACGCTCCA-3' and 5'-ACGTTAGCTTCACTGGGGTAGAATAT-3', respectively. Products of the expected size (456 bp for GarV-D, 458 bp for GarV-E, and 386 bp for GarV-X) were amplified from 27 (87%), 16 (52%) and 26 (84%) samples, respectively. Twelve samples were infected by the three viruses and 12 by GarV-D and GarV-X. To our knowledge, this is the first report of GarV-D, GarV-E and GarV-X in garlic in Poland.

Lu Y.W., Chen J., Zheng H.Y., Adams M.J., Chen J.P., 2008. Serological relationships among the over-expressed coat proteins of Allexiviruses. *Journal of Phytopathology* **156**: 251-255.

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DISEASE NOTE

**PRELIMINARY REPORT OF EPIPHYTIC
AND ENDOPHYTIC COLONIZATION OF
BLACK OAT (*AVENA STRIGOSA*) AND
WHEAT (*TRITICUM AESTIVUM*) BY
CURTObACTERIUM FLACCUMFACIENS
PV. *FLACCUMFACIENS* IN BRAZIL****R.M. Gonçalves, T.A.F. Silva Júnior, R.C. Souza Filho
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Bacterial wilt, incited by *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* (Cff), is one of the major bacterial diseases for dry bean in Brazil, with a higher incidence under no-tillage system after black oat (*Avena strigosa*) cultivation. There are also reports of wheat (*Triticum aestivum*) colonization by Cff under controlled conditions (Silva Júnior *et al.*, 2012). In 2012, black oat and wheat plants grown in Ponta Grossa and Tibagi (Paraná state) were collected 90 days after sowing in crop fields with historic incidence of bacterial wilt of bean, and Cff was isolated in MSCFF culture medium (Maringoni *et al.*, 2006), with specific methodologies to verify the natural epiphytic and endophytic colonization of grasses. Bacterial isolates with yellow and orange colonies, rod-shaped and Gram-positive were obtained, tested for pathogenicity on bean cv. Perola, and identified as Cff by PCR with the specific primers CffFOR2 and CffREV4. Bacterial isolates were pathogenic to bean. This is the first report of epiphytic and endophytic colonization of oat and wheat by Cff in Brazil, showing the importance of these grasses in the epidemiology of bean bacterial wilt in field conditions.

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Maringoni A.C., Camara R.C., Souza V.L., 2006. Semi-selective culture medium for *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* solation from bean seeds. *Seed Science and Technology* **34**: 117-124.

Silva Júnior T.A.F., Negrão D.R., Itako A.T., Maringoni A.C., 2012. Pathogenicity of *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* to several plant species. *Journal of Plant Pathology* **94**: 427-430.

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