

DISEASE NOTE

**ONION YELLOW DWARF VIRUS ON LEEK,
ONION, SHALLOT AND WELSH ONION
IN IRAN****Z. Naderi Saffar¹, S. Torabi², M. Naghavi³,
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During summer of 2011-2012, bulb samples from allia-
ceous vegetables, i.e. garlic (*Allium sativum*), leek (*Allium
porrum*), onion (*Allium cepa*), shallot (*Allium birtifolium*) and
Welsh onion (*Allium fistulosum*) were collected from Az-
arbaijan-e-sharghi, Hamedan, Kerman, Khuzestan, Lorestan,
Mazandaran, Markazi and Zanjan provinces of Iran to de-
termine the presence of *Onion yellow dwarf virus* (OYDV),
genus *Potyvirus*. Collected bulbs were planted in plastic
pots and the resulting plantlets were tested individually at
the two-leaf stage by indirect ELISA using the “Poty group
test” kit from Bioreba (Switzerland). ELISA-positive samples
were subsequently tested by RT-PCR using previously de-
scribed specific primers to amplify a region in the 3' end
of the OYDV genome (Van der Vlugt *et al.*, 1999). RT-PCR
resulted in the amplification of an expected fragment of *ca.*
0.5 kb in size for 30 out of 35 ELISA-positive seedlings from
garlic, leek, onion, shallot and Welsh onion bulbs, confirm-
ing the presence of OYDV. Symptoms of mosaic and yellow
streak striping, curling and distortion of flower stems were
associated with potyvirus infections. OYDV was previously
reported on garlic in Iran (Baghalian *et al.*, 2010) but this is
the first report of its natural occurrence on leek, onion, shal-
lot and Welsh onion in the mid-Eurasia of Iran.

Baghalian K., Kim O.K., Natzuaki K.T., 2010. Molecular variability
and genetic structure of the population of *Onion yellow dwarf
virus* infecting garlic in Iran. *Virus Genes* **41**: 282-291.

Van der Vlugt R.A.A., Steffens P., Cuperus C., Barg E., Lesemann
D.-E., Bos L., Vetten H.J., 1999. Further evidence that shal-
lot yellow stripe virus (SYSV) is a distinct potyvirus and re-
identification of Welsh onion yellow stripe virus as a SYSV
strain. *Phytopathology* **89**: 148-155.

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**FIRST REPORT OF *PERONOSPORA
SPARSA* ON *ROSA* spp. IN MEXICO****D. López-Guisa, M.J. Yáñez-Morales
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In Mexico, the state of Mexico is the main producer
of greenhouse-grown roses (*Rosa* spp.) with *ca.* 650 ha in
production. During the seasons of high relative humidity
and mild temperatures, yellow to red or purplish rectan-
gular spots delimited by veins were observed on the leaves,
whereas on stems and sepals the spots were rounded and
reddish to purple. Incidence ranged from 27 to 74% and, in
severe cases, plants were defoliated. The pathogen associ-
ated with the disease was identified as *Peronospora sparsa*
Berk. based on: the symptomatology shown by leaves and
stems of six rose cultivars (Conga, Grande Classe, Opera,
Polo, Titanic and Vendela), that were collected during July
2012 in Villa Guerrero (18.97 N, 99.65 W), state of Mexico;
sequencing products of the ITS region of rDNA amplified
by nested PCR (Lindqvist *et al.*, 1998) using primers PS3
and PS1 (Aegerter *et al.*, 2002) and morphological characters
(Horst and Cloyd, 2007). Hyaline sporangiophores emerging
from stomata were observed on the underside of the leaves,
which were 300-625 µm in size, branched 3-4 times, with
bifurcated tips 5-22 µm in size. Sporangia were hyaline, sub-
globose to ellipsoid possessed occasionally a tiny stalk and
measured 14-22 × 13-20 µm. No structures were found on
stems. The sequence of ITS-rDNA region (GenBank acces-
sion No. KF541660) showed 99.1% of similarity index with
P. sparsa on *Rosa multiflora* (AY608610). In the region of
study, disease management consists mainly of fungicide ap-
plications every 5-7 days, failing which the pathogen will af-
fect flower bud aperture and size, thus reducing commercial
value of the crop. To our knowledge, this is the first report
in Mexico of downy mildew of roses induced by *P. sparsa*.

Aegerter B.J., Nuñez J.J., Davis R.M., 2002. Detection and man-
agement of downy mildew in rose rootstock. *Plant Disease* **86**:
1363-1368.

Horst R.K., Cloyd A.R., 2007. Compendium of Rose Diseases and
Pests. 2nd Ed. APS Press, St. Paul, USA.

Lindqvist H., Koponen H., Valkonen J.P.T., 1998. *Peronospora
sparsa* on cultivated *Rubus arcticus* and its detection by PCR
based on ITS sequences. *Plant Disease* **82**: 1304-1311.

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