

## DISEASE NOTE

WILT AND ROOT ROT PATHOGENS  
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A high yielding chickpea (*Cicer arietinum* L.) cultivar 'Aziziye-94' (FLIP 84-15C) has been registered for introduction in order to increase chickpea production in the Eastern Anatolian region. However, serious levels of wilt and root rot diseases have been observed in seed production fields, indicating that the susceptibility of cultivar 'Aziziye-94' to these diseases may limit its diffusion in the region. Isolation and pathogenicity testing of fungi associated with plants showing visible symptoms of wilt and root rot in a seed production field of the University of Atatürk, Faculty of Agriculture Farm, and of seed samples have been carried out in the period from June to August 1996. The fungi most frequently isolated from a sample of 175 diseased plants were: *Fusarium solani* (Mart.) Sacc. f.sp. *pisi* (F.R. Jones) W.C. Snyder & H.N. Hans. (50.3%), *F. oxysporum* Schlechtend.: Fr. f.sp. *ciceris* (Padwick) Matuo & K. Sato (38.3%), *Macrophomina phaseolina* (Tassi) Goid. (5.7%) and *Rhizoctonia solani* Kühn (AG-5, 3.4%). *F. acuminatum* Ell. & Kellerm., *F. avenaceum* (Fr.) Sacc. and *F. equiseti* (Corda) Sacc. were also occasionally isolated. Seeds were mainly contaminated by *F. oxysporum* f.sp. *ciceris*. By artificial inoculation it was shown that the most virulent fungi on chickpea were *F. solani* f.sp. *pisi* and *R. solani*. High virulence and high incidence in the field suggest that *F. solani* f.sp. *pisi* may pose the most serious disease problems for chickpea under similar conditions. Necessary precaution must be taken before a large scale introduction of cultivar 'Aziziye-94' into Eastern Anatolia. Further tests should be conducted on the influence that the change, in the region, of the environmental conditions (soil and climate) and cultural practices might have on the disease complex. Resistance of cultivar 'Aziziye-94' to the most damaging soil-borne pathogens should be improved by breeding.

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NO EVIDENCE FOR THE  
TRANSMISSION OF THREE GRAPEVINE  
VIRUSES BY *METCALFA PRUINOSA* (SAY)  
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A study was carried out over a four-year period (1994-1997), for ascertaining whether *Metcalfa pruinosa*, a flatid planthopper, could transmit Grapevine fanleaf virus (GFLV), Grapevine leafroll-associated virus 3 (GLRaV-3) and Grapevine fleck virus (GFkV). Nymphs and adults of both sexes reared on healthy plants, were separately transferred in bulk to potted vines individually infected with one of the above viruses, and allowed to feed (acquisition access time, AAT) for 72 or 96 hours. Populations maintained on healthy vines served as controls. At the end of the AATs, 12 groups of 10 insects for each insect stage/virus combination were analysed in ELISA to assess possible virus acquisition. Ten groups of 25 insects each comprising only nymphs or adults were transferred to young potted indicator vines (*V. rupestris* St. George and *V. vinifera* cv. Cabernet franc) for transmission. After 90 days the flatids were killed by insecticide treatment. The indicators, grown in a greenhouse, were periodically observed over a period of three years and tested by ELISA nine times over the same period. Insects and plant extracts with absorbance values ( $A_{405nm}$ ) greater than three times the controls were considered as positive. ELISA tests of groups of 10 *M. pruinosa* individuals showed that GFLV and GLRaV-3, but not GFkV, were acquired by the insects, since many of the groups that had feed on GFLV- and GLRaV-3-infected vines gave positive responses. In particular, nymphal stages acquired more efficiently (100% and 62.5% positives for GFLV and GLRaV-3, respectively) than adults (16.7% and 20.8% positives for GFLV and GLRaV-3, respectively), regardless of the AAT, which apparently did not influence virus acquisition rate. No evidence was obtained for transmission of any of the viruses to grapevines, based on the lack of symptom appearance and negative ELISA responses over a period of three years.

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