**First Report of *Alternaria tenuissima* as a Leaf Pathogen of *Amaranthus hybridus*.** J. T. Blodgett, W. J. Swart, and Weiqun Chen, Department of Plant Pathology, University of the Orange Free State, Bloemfontein 9300, South Africa. Plant Dis. 83:878, 1999; published on-line as D-1999-0624-03N, 1999. Accepted for publication 24 June 1999.

*Amaranthus hybridus* is an important alternative leafy-vegetable crop with the potential for increased commercial production in southern Africa and other semi-arid regions of the world (2). In May 1998, extensive leaf spotting was observed on *A. hybridus* at Potchefstroom, South Africa. Many of the leaves had symptoms and most were severe. Symptoms were dark brown to black, circular to oval, necrotic lesions with a diameter ranging from <1 mm up to 7 mm. Larger lesions had tan centers. Tissues adjacent to the leaf spots remained green. *Alternaria tenuissima* was isolated from 43% of 40 lesions sampled making up 89% of the isolates recovered. *A. tenuissima* was isolated from asymptomatic leaves of 5-month-old *A. hybridus* plants sampled from the same site in April 1997 (1). The foliar symptoms observed on *A. hybridus* in Potchefstroom were reproduced by inoculating wounded leaves of *A. hybridus* with single-spore *A. tenuissima* isolates obtained from asymptomatic leaves collected at Potchefstroom. Eight isolates were selected for pathogenicity tests conducted in a growth chamber. *A. hybridus* leaves grown from seed in a greenhouse were placed in moist chambers and wounded with a needle (0.5 mm) at leaf center; one 5-mm-diameter, colonized potato dextrose agar plug of each of the isolates was placed on the center of each leaf. A sterile plug was used as a control. Moist chambers were placed in a growth chamber set at 25°C day and 20°C night and provided artificial light for 16 h per day. In a greenhouse (average temperature 25°C day, 17°C night), a conidial suspension ($10^5$ conidia per ml of sterile, distilled water) was applied to an individual leaf of each of 14 plants with an atomizer. Sterile, distilled water was applied to control leaves. Leaves were then wounded with a needle (0.5 mm) at leaf center. Treatments were assigned randomly and the experiments were repeated. Symptoms were first observed at 14 and 18 days (growth chamber and greenhouse, respectively). Seven of the eight isolates caused necrotic lesions with an average diameter of 3 mm (both growth chamber and greenhouse). Symptoms were observed on an average of 56 and 82% of the inoculated leaves (growth chamber and greenhouse, respectively). The range of symptoms was the same as that observed in the field, but symptoms were only observed at the wounds. Controls remained green and showed no symptoms. *A. tenuissima* was recovered from necrotic lesions of surface-disinfested, inoculated leaves (average 93 and 68%; growth chamber and greenhouse, respectively), never recovered from growth chamber controls, and seldom recovered from greenhouse controls (5%). These results suggest that *A. tenuissima* is a leaf-spot pathogen of *A. hybridus* and wounding might trigger disease expression. A minimal amount of leaf spotting of this leafy-vegetable crop can cause total crop loss.

*References*: (1) J. T. Blodgett et al. S. Afr. J. Sci. 94:xviii, 1998. (2) W. J. Swart et al. S. Afr. J. Sci. 93:xxii, 1997.

**First Report of Powdery Mildew Caused by an *Oidium* sp. on *Torenia fournieri*.** G. E. Holcomb, Department of Plant Pathology and Crop Physiology, Louisiana Agricultural Experiment Station, Louisiana State University Agricultural Center, Baton Rouge 70803. Plant Dis. 83:878, 1999; published on-line as D-1999-0628-02N, 1999. Accepted for publication 25 June 1999.

*Torenia fournieri* Lind. ex Fourn. (wishbone flower, bluewings) is a popular summer bedding plant in Louisiana. Clown Mixture cultivars are available in garden centers in March and April. Transplants of cultivar Clown Rose were purchased, transplanted to larger pots, and maintained in a greenhouse. A powdery mildew was observed on these plants in March and all plants (six) were severely diseased by May. Symptoms included leaf distortion and yellowing. Powdery mildew was not present on transplants and none was found in later checks of garden centers. An *Oidium* sp. was observed sporulating on both leaf surfaces of infected plants. Conidia were ellipsoid, produced in chains, lacked fibrosin bodies, and averaged 41 × 22 µm in dimensions. No sexual stage was observed. Healthy plants of Clown Mixture cultivars were obtained and inoculated by brushing conidia from infected plant leaves to leaves of healthy plants. Plants were maintained in a greenhouse where temperatures ranged from 16 to 26°C. Hyphal growth appeared on inoculated plants after 5 days and the reproductive structures formed later appeared the same as those on originally infected plants. Uninoculated plants remained healthy. No previous reports of powdery mildew diseases of *T. fournieri* in the United States were found. Other powdery mildew pathogens reported on *T. fournieri* are *Sphaerotheca fuliginea* (Schlechtend.:Fr.) Pollacci in Finland and Japan and an *Erysiphe* sp. in Japan (1).

*Reference*: (1) K. Amano. Host Range and Geographical Distribution of the Powdery Mildew Fungi. Japan Scientific Press, Tokyo, 1986.

**Coriander: A New Natural Host of Groundnut Ring Spot Virus in Brazil.** M. F. Lima, Embrapa Semi-Árido C.P. 23, Petrolina, PE, 56300-000, Brazil; A. C. de Ávila, Embrapa–Hortaliças C.P. 218, Brasília, DF, 70359-970, Brazil; L. J. da G. Wanderley, Jr., Hortivale, Petrolina, PE, Brazil; T. Nagata, Embrapa–Hortaliças, Brasília, DF, Brazil; and L. J. W. da Gama, Hortivale, Petrolina, PE, Brazil. Plant Dis. 83:878, 1999; published on-line as D-1999-0706-02N, 1999. Accepted for publication 23 June 1999.

Coriander plants (*Coriandrum sativum* L. 'Palmeira'), showing stunting, chlorotic ring spots, necrosis, and malformation of apical leaves were observed on 50-day-old-plants in July 1998 in one seed production field at Petrolina, State of Pernambuco, Brazil, but not in nearby fields. Leaf samples were collected and tested by double antibody sandwich–enzyme-linked immunosorbent assay (DAS-ELISA) with a panel of polyclonal antibodies made against the nucleocapsid protein (N) of tomato spotted wilt virus (TSWV), tomato chlorotic spot virus (TCSV), groundnut ring spot virus (GRSV), and impatiens necrotic spot virus (INSV) (1). All symptomatic samples reacted only with the GRSV antisera. Coriander leaf extracts from infected plants were mechanically inoculated onto potential indicator hosts. The virus induced systemic infection with vein clearing, chlorotic and necrotic spots, necrotic ring spots, mosaic, top distortion, and stunting within 21 days after inoculation on *Capsicum annuum* cv. Ikeda, *C. chinense* PI 159236, *Physalis floridana, Nicandra physaloides, Nicotiana tabacum* cv. TNN, *N. benthamiana, Lycopersicon esculentum* cv. Rutgers, *Phaseolus vulgaris* cv. BT2, and *Gomphrena globosa*. The symptomatic indicator plants tested positive for GRSV by DAS-ELISA. *P. vulgaris, Chenopodium amaranthicolor, C. quinoa, and Cucurbita pepo* (zucchini) cv. Caserta showed only small, necrotic, local lesions on inoculated leaves. *Citrullus lanatus* cv. Charleston Gray was asymptomatic. This is the first report of natural occurrence of GRSV on coriander in Brazil.

*Reference*: (1) A. C. de Ávila et al. J. Gen. Virol. 71:2801, 1990.

**First Report of Golden Dwarf Mistletoe on *Pinus maximinoi*.** R. Mathiasen and S. Sesnie, School of Forestry, Box 15018, Northern Arizona University, Flagstaff 86011; and J. Calderon and A. Soto, Facultad de Agronomia, Universidad de San Carlos de Guatemala, Ciudad Universitaria Zona 12, Ciudad de Guatemala, Guatemala, C.A. Plant Dis. 83:878, 1999; published on-line as D-1999-0701-02N, 1999. Accepted for publication 1 July 1999.

Golden dwarf mistletoe (*Arceuthobium aureum* subsp. *aureum* Hawksw. & Wiens) is endemic to east-central Guatemala (Departments Alta Verapaz, Baja Verapaz, and Quiche) (1,2). Its principal hosts are *Pinus pseudostrobus* Lindl., *P. montezumae* Lamb., and *P. oaxacana* Mirov (1). In May 1999, *A. aureum* subsp. *aureum* was observed infecting *Pinus maximinoi* H. E. Moore at four locations: 1.0 km south (altitude 1,580 m) and 5.4 km north (altitude >1,630 m) of La Cumbre, Baja Verapaz on Route CA-14, 8 km west (altitude 1,670 m) of Chilasco, Baja Verapaz, and 5 km west (altitude 1,490 m) of San Cristobal Verapaz, Alta Verapaz on Route 7-W. Although previous reports (1,2) indicated that golden dwarf mistletoe does not induce witches'-brooms on its hosts, older (>50 years), severely affected *P. maximinoi* were observed to have formed large witches'-brooms as a result of dwarf mistletoe infection. Although it has been suggested that *Pinus oocarpa* Schiede is susceptible to golden dwarf mistletoe (1), several large trees of this species were observed growing within 5 m of infected *P. maximinoi* at three of the four locations, but none were infected. This is the first report of golden dwarf mistletoe on *P. maximinoi*.

*References*: (1) F. G. Hawksworth and D. Wiens. 1996. Dwarf Mistletoes: Biology, Pathology, and Systematics. USDA Agric. Handb. 709. (2) D. Wiens and C. G. Shaw, J. Idaho Acad. Sci. 30:25, 1994.

(*Disease Notes* continued on next page)