Disease Notes

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A New Viral Disease of Pea (*Pisum sativum*) Caused by Bidens Mosaic Potyvirus. T. Nagata and A. N. Dusi, CNPH/EMBRAPA, C.Postal. 218, 70359-970, Brasília, DF; and A. K. Inoue and E. W. Kitajima, Departamento de Biologia Celular, Universidade de Brasília, 70919, Brasília, DF, Brasil. Plant Dis. 79:82, 1995; published on-line as D-1995-0102-01N, 1995. Accepted for publication 15 September 1994.

In October 1992 a virus was isolated from two pea samples (*Pisum sativum* L.) cv. Torta de Flor Roxa (TFR) showing dark green mottling symptom in leaves collected in a commercial pea field of Brasília, Brazil. In the area about 40% of the plants showed mosaic symptoms. Some plants were found to be infected by pea seedborne mosaic virus (PSbMV), indicating mixed infection. The unidentified virus isolate was maintained in pea cv. TFR in the greenhouse by mechanical inoculation. This virus was taken through three single lesion transfers in *Chenopodium quinoa* Willd. prior to use in other experiments. It was transmitted from pea to pea by *Myzus persicae* (Sulzer) in a nonpersistent manner. Electron microscopy assays revealed typical potyvirus particles and pinwheel inclusions, in purified virus samples and in ultrathin section, respectively. The host range of the virus did not match any potyviruses reported to infect pea. The virus systemically infected pea cvs. Alaska 81, resistant to pea seedborne mosaic virus, Triofin and TFR, *Lens culinaris* Medik. cv. Precoz, *Nicotiana benthamiana* Domin., *Zinnia elegans* Jacq., *Helianthus annuus* Linn. cv. Sun Gold, *Sesamum indicum* L. *Spinacia oleracea* L. and *Bidens pilosa* L. It caused only local infection in *Vicia faba* L., *Phaseolus vulgaris* L. cv. Top Crop, *Nicotiana tabacum* L. cv. Turkish NN, and *N. rustica* L.. The host responses were very close to those reported for Bidens mosaic virus (BiMV)(1). In serological dot-blots, the virus strongly reacted with BiMV antiserum (1) raised against BiMV isolated *Bidens pilosa* L. and intermediately with potato virus Y. In double immunodifusion test, the virus showed homologous precipitation band with the BiMV antiserum. These results indicate that a BiMV was isolated from pea which is the first report of natural infection of pea by BiMV. The spread of the disease can now be determined as antisera to this virus is now available.

Reference: (1) G. B. Khun et al. Fitopatol. Bras. 5:39-50, 1980.

Report of Rust Caused by *Frommeella mexicana* var. *indicae* on False Strawberry in Argentina. G. A. Costa and B. L. Ronco, Departamento de Sanidad Vegetal. Facultad de Ciencias Agrarias y Forestales, Universidad Nacional de La Plata. C. C. 31, 1900, La Plata, Argentina. Plant Dis. 79:82, 1995; published on-line as D-1995-0102-04N, 1995. Accepted for publication 17 November 1994.

False strawberry (*Duchesnea indica* Focke) grows naturally in the humid riverside forests of Rio de La Plata (La Plata and Ensenada, Buenos Aires, Argentina) and is grown as an ornamental. A rust disease caused by *Frommeella mexicana* var. *indicae* J. McCain & J. Hennen (= *Frommeella duchesneae* (Arth.) Yohem, Cummins & R. L. Gilbertson = *Frommea obtusa* (Strauss) Arth. var. *duchesneae* (Arth.)) (1) was found on abaxial leaf surfaces, stems, and trailing vines of *D. indica*. In October 1985–1988 (when humidity is high and the temperature is moderate, 15–20 C), urediniospores collected from diseased plants were used to inoculate noninfected leaves of 25 2-mo-old plants grown in plastic pots in the greenhouse. After 7–8 days, sporulation occurred and disease spread rapidly on all plants. Pustulates, powdery and bright orange when fresh, contained urediniospores (17–19 × 17–19 μm). Teliospores were not found. Plants of *D. indica* declined in vigor when disease was severe. A voucher specimen has been filed in the Arthur Herbarium, Purdue University, West Lafayette, Indiana. This is the first reported case of this autoecious rust in the area of La Plata and Ensenada.

Reference: (1) J. W. McCain and J. F. Hennen. Mycotaxon. 39:249, 1990.

First Report of *Ascochyta rabiei* Causing Ascochyta Blight of Garbanzo in California. P. Guzman, R. M. Davis, R. L. Gilbertson, Department of Plant Pathology, University of California, Davis 95616, and S. N. Smith and S. Temple, Department of Agronomy and Range Science, University of California, Davis 95616. Plant Dis. 79:82, 1995; published on-line as D-1995-0102-05N, 1995. Accepted for publication 17 November 1994.

A severe blight of garbanzo (*Cicer arietinum* L.) plants was observed in May 1994 on experimental lines growing at the University of California, Westside Field Station in Fresno County. Thirty percent of the 1.5-acre field was severely infected after a period of cool and rainy weather. Symptoms included tan to brown lesions on leaves, stems, and pods; and signs were brown to black pycnidia immersed in host tissue and arranged in concentric rings within the lesions. Conidia were straight, hyaline, and usually nonseptate. Based on the morphological characteristics of the fungus from infected plants and pure culture, it was identified as *Ascochyta* spp. To complete Koch's postulates, a monosporic fungal culture was grown on potato-dextrose agar. In two separate experiments, 15-day-old garbanzo plants were sprayed with a suspension of conidia (2×10^4 conidia per milliliter) from the monosporic culture and covered with plastic bags for 5 days. Noninoculated plants served as controls. Lesions similar to those observed on the field-infected plants developed on stems, petioles, and leaves 12 days after inoculation. Control plants were symptomless. The fungus was reisolated from diseased tissue and was morphologically identical to the original monosporic isolate and, thus, was identified as *A. rabiei* (Pass.) Labrousse. This seedborne pathogen represents a potential threat to the 15,000 acres of garbanzo grown in California. Ascochyta blight of garbanzo was first reported in the Western Hemisphere in Canada in 1974, and later in the United States in Washington in 1983 and Idaho in 1985 (1,2). This is the first report of *A. rabiei* infecting garbanzos in California.

References: (1) M. L. Derie et al. Plant Dis. 69:268, 1985. (2) W. J. Kaiser and F. J. Muehlbauer. Phytopathology 74:1139, 1984.

First Report of Scab on Cultivated Wild Rice in Minnesota. R. F. Nyvall and R. A. Porter, University of Minesota, North Central Experiment Station, 1861 Highway 169 E., Grand Rapids, 55744; and J. A. Percich, Department of Plant Pathology, University of Minnesota, St. Paul 55108. Plant Dis. 79:82, 1995; published on-line as D-1995-0102-06N, 1995. Accepted for publication 29 November 1994.

Fusarium spp. were isolated from seed of cultivated wild rice (*Zizania palustris* L.) that was dried to 20–21% moisture content following the 1993 growing season. *Fusarium graminearum* Schwabe was isolated most frequently, but *F. culmorum* (Wm. G. Sm.) Sacc., *F. moniliforme* J. Sheld., *F. sporotrichoides* Sherb., and *F. subglutinans* (Wollenweb. & Reinking) P. E. Nelson, T. A. Toussoun, & Marasas also were isolated. *Fusarium* spp. were not isolated from seed stored in water immediately after harvest, the normal procedure to store seed for sowing the following year. Scab has not been reported on cultivated wild rice. Therefore, during the 1994 growing season, plants in the field were observed at four different locations approximately every 10 days, beginning at anthesis, for symptoms of infection by *Fusarium* spp. We observed spikelets that were bleached to a tan color and were either sterile or contained shriveled and discolored seed. Frequently a pink to orange discoloration caused by sporodochia containing conidia, conidiophores, and mycelium was observed during high humidity conditions. *Fusarium graminearum* was isolated from 100% of spikelets and seed displaying these symptoms. Other *Fusarium* spp. were not isolated from symptomatic seed in 1994. Conditions for the cultivation of wild rice, especially high humidity, are optimum for scab development. To our knowledge this is the first report of scab on cultivated wild rice. Cultivated wild rice is now becoming widely used in rice mixtures and other foodstuffs throughout the United States. Therefore, this represents another mode by which harmful toxins that may potentially be produced by *Fusarium* spp. are introduced into the human food chain.