Disease Notes

Citrange Stunt Virus Associated with Decline of Shamouti on Swingle Citrumelo Rootstock in South Africa. L. J. Marais, Outspan Citrus Centre, Nelspruit 1200, South Africa, and R. F. Lee, University of Florida, IFAS, CREC, Lake Alfred 33850. Plant Disease 70:892, 1986. Accepted for publication 16 April 1986.

Citrange stunt virus (CSV) was found in Shamouti (*Citrus sinensis* (L.) Osb.) trees that had originated from certain budwood sources in Swaziland and were growing on Swingle citrumelo (*Poncirus trifoliata* (L.) Raf. × *C. paradisi* Macf.) rootstock. These trees declined when 2–4 yr old and showed necrosis and creasing at the bud union. Established field plantings showed that healthy Shamouti trees on Swingle commonly have a crease at the bud union, but this did not seem to be the cause of decline. CSV, identified by indexing on citrus and herbaceous indicators, was found in groves containing declining trees but not in registered Shamouti bud sources. Infected Swingle seedlings, which are good indicator plants for CSV, produced twisted, distorted leaves, distinct ring spots, zigzag stems, and stem lesions. This is the first report of trees declining on Swingle rootstock and containing CSV.

Reference: R. E. Rouse and H. K. Wutscher. HortScience 20:259, 1985.

Powdery Mildew Caused by *Erysiphe heraclei* on Carrot in North Carolina. S. F. Jenkins, J. Andreas, D. C. Sanders, and R. S. Gurkin, Departments of Plant Pathology and Horticultural Science, North Carolina State University, Raleigh 27695. Plant Disease 70:892, 1986. Accepted for publication 16 April 1986.

Powdery mildew was observed on leaves and petioles of 12-wk-old carrot (*Daucus carota* L. var. *sativa* DC. 'Danvers 126') in September 1982 at Clinton, North Carolina. The fungus spread from initial foci throughout the entire 0.5-ha planting. The disease was more prevalent on older leaves, which became chlorotic and senescent. Growth and development of the fungus diminished with cooler temperatures in late October. Mycelium was well developed with numerous branches. Cylindric conidia, about 35–45 × 15–20 μm, were produced singly, rarely in short chains. Perithecia were not observed. Conidia germinated with unforked germ tubes, and fibrosin bodies were not detected. The anamorph fits the description of *Erysiphe heraclei* DC., the cause of powdery mildew of carrot and other umbelliferous hosts. The source of primary inoculum is not known. We have found no other reports of powdery mildew on carrot in the United States. Two applications of benomyl (Benlate 50W) at 280 g a.i./ha controlled the disease.

Evidence for Local Source of *Puccinia recondita* on Wheat in Pennsylvania. J. F. Schafer and D. L. Long, USDA-ARS, Cereal Rust Laboratory, University of Minnesota, St. Paul 55108. Plant Disease 70:892, 1986. Accepted for publication 13 May 1986.

Puccinia recondita Rob. ex Desm. f. sp. *tritici*, causal agent of leaf rust of *Triticum* spp., is believed to overwinter some years in much of the winter wheat area of North America. Specific data, however, are limited. During 8 yr (1978–1985) of race monitoring in the United States, only 25 isolates of race UN 11 (1) with a phenotype of p 1,17 or p 1,17,18 were obtained among a total of 3,935. Of the 25 isolates, 23 were collected in four counties in central Pennsylvania during 1983 (1) and 1985. The 23 occurred among 99 isolates collected from Pennsylvania during those 2 yr, compared with only 37 collected during the other 6 yr combined. The 23 isolates thus appear to represent a local, rather rare leaf rust population in Pennsylvania observed in years of greater total local sampling. The near uniqueness of these 23 to the area implies a source within this area and thus provides circumstantial evidence for local oversummering and overwintering of these phenotypes, although not in detectable quantity every year.

Reference: (1) D. L. Long et al. Plant Dis. 69:343, 1985.

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Turnip Mosaic Virus in Alabama. M. A. Wilson and C. Stevens, George Washington Carver Agricultural Experiment Station, Tuskegee University, Tuskegee, AL 36088, and R. T. Gudauskas and V. Varner, Department of Botany, Plant Pathology and Microbiology, Auburn University, Auburn, AL 36849. Plant Disease 70:892, 1986. Accepted for publication 30 April 1986.

In the spring of 1983 and the spring and fall of 1984, severe mosaic and chlorosis of foliage, stunting, and death of turnip (*Brassica rapa* L. 'Japanese Shogoin,"White Egg,' and 'Purple Top White Globe') plants were observed at two locations in Macon County, Alabama. Overall incidence of the disease was 60 and 95% during 1983 and 1984, respectively, and yield and quality of turnips were significantly reduced. The causal virus was identified as turnip mosaic virus (TuMV) by serologically specific electron microscopy (SSEM); TuMV antiserum was provided by D. E. Purcifull of the University of Florida, Gainesville, and R. J. Shepherd of the University of Kentucky, Lexington. Long (717 nm), flexuous rod particles characteristic of TuMV were observed by SSEM in leaf sap from both naturally and experimentally infected turnip plants; no virus particles were observed in sap from healthy plants.

Downy Mildew (*Sclerophthora macrospora*) of Wheat, Barley, and Oats in North Dakota. V. L. Jons, Crop Production Service, Moorhead, MN 56560, and B. Nelson and M. McMullen, Department of Plant Pathology, North Dakota State University, Fargo 58105. Plant Disease 70:892, 1986. Accepted for publication 28 April 1986.

In June 1985, durum wheat (*Triticum durum* Desf. 'Lloyd') and barley (*Hordeum vulgare* L. emend. Bowden 'Azure') plants (20–50% incidence) showing stunting, leathery leaves, excessive tillering, and deformed heads were observed in wet areas of two fields near Casselton, North Dakota. Similar symptoms were observed in wet areas in oat (*Avena sativa* L. 'Porter,' 'Steele,' 'Dumont,' and many experimental lines) breeding nurseries in Fargo and Prosper. These symptoms were initially attributed to phenoxy herbicide injury, but microscopic examination of leaf tissue of each crop showed abundant oospores of *Sclerophthora macrospora* (Sacc.) Thirum., Shaw & Naras. (1,2). This is the first report of downy mildew on these important cereals in North Dakota. Wet, cool conditions during 1985 provided a favorable environment for disease development. Because of the similarity of downy mildew symptoms to those of herbicide injury in small grains, this fungal disease most likely was misidentified as herbicide damage in past years.

References: (1) G. Semeniuk and C. J. Mankin. Phytopathology 54:409, 1964. (2) M. D. Whitehead. Phytopathology 48:485, 1958.

First Report of *Amphobotrys ricini* Infecting *Caperonia palustris* in the United States. N. G. Whitney, Texas A&M University Agricultural Research and Extension Center, Beaumont 77706, and R. A. Taber, Department of Plant Pathology and Microbiology, Texas A&M University, College Station 77843. Plant Disease 70:892, 1986. Accepted for publication 25 April 1986.

A stem canker epidemic resulting in the complete mortality of an adult texasweed (*Caperonia palustris* (L.) St. Hil.) population was observed in the summer of 1984 at the Texas A&M University Agricultural Research and Extension Center in Beaumont. Texasweed is an economically important weed in rice and soybeans in the Gulf Coast area. The fungus causing the disease was isolated on potato-dextrose agar from black sclerotia embedded in the stem tissue of dead plants. In culture, the colonies are light gray and macroscopically similar to those in cultures of *Botrytis*. Conidiophores are long, slender, pigmented, and highly branched, with clusters of conidia at the apex of each branch. Conidia are ovoid, one-celled, and hyaline. Conidia and hyphae were inoculated into healthy texasweed stems with autoclaved toothpicks. Within 3 days, cankers were produced at inoculation sites; the cankers enlarged, girdled the stems, and killed the plants in approximately 2 wk. The fungus was reisolated from inoculated texasweed in September 1984. The causal fungus was identified as *Amphobotrys ricini* (Buchw.) Hennebert (2). This species causes a gray mold of castorbean (*Ricinus communis* L.) (1) but has not been reported on other plants in the United States until now.

References: (1) G. H. Godfrey. J. Agric. Res. 23:679, 1923. (2) G. L. Hennebert. Persoonia 7:183, 1973.