Disease Notes

First Report of Gray Leaf Spot on St. Augustinegrass in Italy. G. Polizzi and I. Castello, Dipartimento di Scienze e Tecnologie Fitosanitarie, University of Catania, Via S. Sofia 100, 95123 Catania, Italy; and A. M. Picco and D. Rodino, Dipartimento di Ecologia del Territorio e degli Ambienti Terrestri, Sezione di Micologia, University of Pavia, Via S. Epifanio 14, 27100 Pavia, Italy. Plant Dis. 87:1536, 2003; published on-line as D-2003-0927-01N, 2003. Accepted for publication 2 September 2003.

St. Augustinegrass (*Stenotaphrum secundatum* (Walt.) Kuntze) is used for lawns in southern Italy because it is much more resistant to biotic and abiotic adversities than other turfgrass species. Because few seeds are viable, this species is established by vegetative propagation. A new disease was noticed during the spring of 2002 and 2003 on cuttings of St. Augustinegrass growing in three greenhouses in eastern Sicily. The disease affected leaves and culms and caused a progressive drying of the plants. The infection was first seen on leaves as gray, necrotic spots that enlarged in high-humidity conditions to form oval, and later, spindle-shaped lesions. In association with the lesions, it was possible to observe fungal spore development and sunken areas with blue-gray centers and slightly irregular, brown margins with yellow halos. Spots were concentrated without specific arrangement along longitudinal veins and the midrib and at the base, tip, and margins of the leaf blade. Symptoms on the culms consisted of brown-to-black blotches that sometimes extended throughout the internodes. From these infected tissues, 20 explants taken from leaves and culms were cut, washed with sterile water, and placed on 1.5% water agar (WA). Later, conidia and conidiophores were obtained from colonies with a sterile glass needle and placed on 4% WA. From these plates, two monoconidial isolates were obtained and transferred to rice meal medium (1). The colonies were identified as *Pyricularia grisea* Cooke (Sacc.), anamorphic state of *Magnaporthe grisea* (Hebert) Yeagashi & Udagawa, the cause of rice blast disease and gray leaf spot disease of turfgrasses. The conidia were pyriform to obclavate, narrowed toward the tip, rounded at the base, 2-septate, 21 to 31 µm × 6 to 10 µm (average 25.7 ×8.2 µm). Pathogenicity tests were performed by inoculating leaves and culms of six St. Augustinegrass plants with a conidial suspension of the fungus (1.5×10^5 conidia per ml). The same number of noninoculated plants was used as controls. All plants were incubated in a moist chamber with high humidity at 25°C. After 6 days, all inoculated plants showed typical symptoms of the disease. Koch's postulates were fulfilled by isolating *P. grisea* from inoculated plants. Gray leaf spot caused by *P. grisea* has been a chronic problem on St. Augustinegrass since it was first reported in 1957 (2). To our knowledge, this is the first report of *P. grisea* on St. Augustinegrass in Italy. While it does not appear to be an important disease in the field at this time in Sicily, it could cause losses in greenhouses where vegetative material is propagated for field planting. A preliminary molecular analysis has shown a clear distinction between the tested strain and other strains isolated from rice seeds and plants in northern Italy.

References: (1) E. Roumen et al. Eur. J. Plant Pathol. 103:363, 1997. (2) L. P. Tredway et al. Plant Dis. 87:435, 2003.

First Report of Swiss Needle Cast Caused by *Phaeocryptopus gaeumannii* on Douglas-Fir in Turkey. F. Temel, Kafkas University, Artvin Faculty of Forestry, 08000 Artvin, Turkey; J. K. Stone, Department of Botany and Plant Pathology, Oregon State University, Corvallis 97331; and G. R. Johnson, USDA Forest Service PNW Research Station, 3200 NW Jefferson Way, Corvallis, OR 97331. Plant Dis. 87:1536, 2003; published on-line as D-2003-0929-01N, 2003. Accepted for publication 5 September 2003.

Two 15-year-old Douglas-fir (*Pseudotsuga menziesii* var. *menziesii* (Mirb.) Franco) test plantations at Artvin, in the eastern Black Sea Coast Region of Turkey, were inspected in July 2003. Trees in both plantations had yellow-to-brown foliage, and most trees retained only the current year's needles, resulting in sparse tree crowns. Numerous minute, black fruit bodies were present along the rows of stomata on the lower surfaces of needles from both plantations. Laboratory examination revealed that the fruiting bodies that emerged through the stomata were those of *Phaeocryptopus gaeumannii* [Rohde] Petrak, the causal agent of Swiss needle cast (SNC). Although low infection levels are relatively harmless, heavily infected trees lose all but the current year's foliage, with resulting average volume growth reductions of 23 to 52% (2,3). The pathogen occurs throughout the natural range of Douglas-fir in western North America, where it is native, as well as in eastern North America, Europe, Australia, and New Zealand, where both host and fungus have been introduced (1,2). The pathway of introduction of the pathogen to Turkey is unknown. Douglas-fir is the only known host of *P. gaeumannii*, and the pathogen is not known to be seedborne. Where *P. gaeumannii* has been introduced outside of western North America, infected nursery stock has been considered the most probable source (1). However, the affected Artvin plantations were established with seedlings produced in Turkey by using seed obtained from various sources. Earlier Douglas-fir plantations in Turkey date from 1953 and were established by using seed originating from France. The possibility that the pathogen could have arrived with untracked Douglas-fir seedlings from outside Turkey imported by arboreta or private nurseries cannot be excluded. Alternatively, scattered Douglas-fir plantations could have served as links between the Artvin infestation and known infested areas in central and eastern Europe, with spread occurring via windborne ascospores, similar to the spread of the pathogen to Denmark from the British Isles (ca. 1930) (1). Presence of severe SNC infections in Douglas-fir test sites at Artvin could hamper efforts to use this species in operational forestry in Turkey. To our knowledge, this is the first report of the occurrence of Swiss needle cast on Douglas-fir in western Asia. Voucher specimens have been deposited in the Oregon State University herbarium (OSC 106394-106403).

References: (1) J. S. Boyce. Phytopathology 30:649, 1940. (2) E. M. Hansen et al. Plant Dis. 84:773, 2000. (3) D. Maguire et al. West. J. Appl. For. 17:86, 2002.

First Report of *Puccinia xanthii* on *Xanthium italicum* in Eastern Hungary. I. Dávid, P. Harcz, and G. J. Kövics, Debrecen University, Centre for Agricultural Sciences, Department of Plant Protection, H-4015 Debrecen, POB. 36, Hungary. Plant Dis. 87:1536, 2003; published on-line as D-2003-1001-01N, 2003. Accepted for publication 12 September 2003.

In 2002, in Debrecen, eastern Hungary, *Puccinia xanthii* Schwein. was detected on hunter burr, a geographically spreading, noxious weed species in row crops. Symptoms were found on leaves, stems, and petioles of plants collected from a competition experiment between sugarbeet and hunter burr. Density of the hunter burr population (6 plants per m^2 or 20 plants per m^2) influenced the rate of infection. In the low-density population, the number of rust pustules and infected leaves was lower than that in the high-density population, in which 70% infection was reached by September. First symptoms appeared at the end of July (high-density population) and in the beginning of August (low-density population) in the form of small, chlorotic raised spots on the underside of the leaves. Dark brown telia (3.8 mm in diameter or larger) developed on spots. Elliptical telia occurred at the rate of 0.02 to 2.37 pustules per cm^2. Elongated pustules caused swelling and epidermal splitting on stems and petioles. Teliospores were brown, two-celled, and 35 to 56 × 15 to 21 µm, the walls were 0.8 to 1.0 µm at the side and 5 to 8 µm at the apex, the septum was 1 to 1.5 µm, and a persistant pedicel was 15 to 50 µm. Size and morphology of teliospores fit the description of *P. xanthii* (2). A pathogenicity test was conducted in the greenhouse (24°C with high relative humidity) according to the "leaf disc method" of Morin et al. (1) using freshly collected hunter burr leaves. Teliospores germinated immediately, producing metabasidia, and basidiospores were produced within 5 h. The first macroscopic symptoms on test plants were observed 4 days after inoculation. Approximately 8 days after inoculation, developing telia arose from the thallus and began to erupt through the epidermis. Developed teliospores on artificially inoculated plants were morphologically identical to those from leaves collected in the field. Control plants did not develop symptoms. This microcyclic rust occurs in several regions of the world, including several southern European countries. This rust is a potential biological agent for the control of *Xanthium* spp.; however, it can infect several cultivars of sunflower (1). To our knowledge, this is the first report of *P. xanthii* in Hungary.

References: (1) L. Morin et al. Can. J. Bot. 71:959, 1993. (2) J. A. Parmelee. Can. J. Bot. 47:1391, 1969.