Disease Note

FIRST REPORT OF *FUSARIUM TEMPERATUM* CAUSING EAR ROT ON MAIZE IN ITALY

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A two-year survey (2011-2012) was conducted to determine the population composition of *Fusarium* species on maize (*Zea mays* L.) in Lombardy (northern Italy). Maize ears exhibiting typical symptoms of Fusarium ear rot (FER) (about 30%), such as white to pink colored mycelia on the tip or scattered all over the ear, were collected at harvest. Rotted kernels were surface sterilized, rinsed in sterile water, dried and placed on potato dextrose agar (PDA) amended with dichloran and antibiotics. Developed *Fusarium* colonies were single-spore purified and grown on Spezieller Nährstoffarmer agar (Leslie and Summerell, 2006). Based on morphological characteristics, 15 *Fusarium* spp. strains were identified as *Fusarium subglutinans*. Colonies on PDA showed a cottony aerial mycelium, initially white, becoming pinkish white. No microconidia chains were detected, conidiophores were erect and terminated in one to three phialides. Macroconidia were falcate, three to five septate, with a slightly beaked apical cell and a barely or distinct footlike basal cell. The translation elongation factor-1α (EF-1α) gene was partially sequenced for all the *F. subglutinans* strains using primers EF1 and EF2 (Scauflaire *et al*., 2011). BLASTn analysis showed that the nucleotide sequence (673 bp) of one strain (isolate GV2188, GenBank Accession No. KX156836) shared 100% sequence identity with *F. temperatum* (HM067689), a recently described species closely related to *F. subglutinans* (Scauflaire *et al*., 2011). Using silk channel inoculation method, *F. temperatum* pathogenicity was assessed on 10 maize ears (LG 32.85 hybrid) under greenhouse conditions. After 30 days, FER symptoms, i.e. whitish pink to lavender fungal growth on kernels, were observed only on inoculated ears and not on water controls. Koch's postulates were fulfilled by re-isolating the fungus from infected kernels. To our knowledge, this is the first report of *F. temperatum* in Italy associated with FER.

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Disease Note

FIRST REPORT OF SWEET POTATO LEAF SPOT CAUSED BY *NEOPESTALOTIOPSIS ELLIPSOSPORA* IN GUIZHOU PROVINCE, CHINA

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During May to September 2015, sweet potato [*Ipomoea batatas* (L.) Lam.] plants with leaf spot symptoms were observed in Guizhou Province, China, at 25° 12' 06.8" N 107° 57' 25.3" E with about 15% incidence. The disease first appeared as small, round, yellow specks on leaves. Successively, the affected areas became necrotic and gradually enlarged to 3-9 mm in diameter. The fungal species present on the sample was isolated onto PDA using a single spore culture technique as described in Chomnunti *et al.* (2014). Colonies on PDA attained 30-40 mm in diameter after 7 days at 25°C, producing a dense aerial mycelium on the surface. Conidia were ellipsoid, 4-septate, 20.0-26.0 × 5.0-7.5 µm. Apical and basal cells were hyaline, whereas the three median cells were versicolored. Each apical cell had 3 tubular apical appendages, 7-24 µm long. The conidial dimensions of these isolates correspond to *Pestalotiopsis ellipsospora* Maharachchikumbura & K.D. Hyde (Maharachchikumbura *et al*., 2012). Sequence data for the rDNA internal transcribed spacer (ITS), Beta tubulin (TUB) and partial translation elongation factor 1-alpha (TEF) of three *N. ellipsospora* isolates were deposited in GenBank under the accession Nos. KU500017 to KU500019 (ITS), KU500010 to KU500012 (TUB) and KU500013 to KU500015 (TEF). A BLAST search showed 100% similarity with *N. ellipsospora* isolate (CBS 115113) sequences deposited in GenBank. The disease was reproduced on sweet potato healthy leaves inoculated using either 3-day-old mycelial discs or inoculum (1×10^6 conidia/ml) prepared by scraping conidia from 10-day-old cultures on PDA plates. To our knowledge this is the first report of *Neopestalotiopsis* causing leaf spot on sweet potatoes in the world.

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