Celery (*Apium graveolens* L.), a new host of *Pseudopyrenochaeta terrestris* (former *Pyrenochaeta lycopersici*)

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In January 2019, celery (*Apium graveolens* L.) plants of cv. Utah, cultivated in an open field in Puglia (Italy), showed reduction of vigor and size, leaf yellowing and wilting with an incidence of about 50%. Necroses were present on the roots and near the collar and the vascular tissues were dark; in some plants, soft rot occurred. To identify the causal agent of the disease, symptomatic basal tissues were disinfected in 1% NaOCl, rinsed with sterile water and plated onto potato dextrose agar (PDA), supplemented with streptomycin and chloramphenicol (50 ppm, each). To exclude the presence of bacterial infections, isolation on nutrient agar were also attempted. After two weeks of incubation at 22 °C, colonies with a slow growing compact mycelium, initially creamy white and then dark grey, with brown reverse color, were observed. No pycnidia and conidia were present. These features resembled those of *Pyrenochaeta* spp. After PCR amplification of ITS region, using the primer pair ITS4 and ITS5 (White et al. 1990), one isolate, named ER 2186, produced a 600 bp band that was sequenced and deposited in GenBank (accession number MN088821). Following Blast analyses, MN088821 showed a 100% homology with accessions NR_160575.1, AY649594.1 and AY649593.1, corresponding to the formerly named *Pyrenochaeta lycopersici* Type 1 (Infantino and Pucci 2005), now renamed *Pseudopyrenochaeta terrestris* sp. nov. (Valenzuela-Lopez et al. 2018). To verify the pathogenicity, five plugs of ER 2186 were added to 200 g of autoclaved pearl millet grains and incubated at 23 °C. After three

weeks, the inoculated millet was added to a mixture of peat and sand (1:7:2 v/v/v) to obtain the final substrate in which five plants of celery cv. Utah, at five leaf stage, and five plants of tomato cv. Marmande, at third leaf stage, were transplanted. The plants were put in a phytotron at 23 °C with 12 h light/dark photoperiod. Five plants of each species were used as controls. Two months after the inoculation, symptoms of necrosis were observed on the collar and roots, resembling those observed in the field. To fulfill the Kock's postulates, *P. terrestris* strain was re-isolated from both celery and tomato inoculated plants. To the best of our knowledge, this is the first report of *P. terrestris* affecting celery worldwide. This information is useful to provide efficient control strategies against the disease on celery and to establish correct crop rotations of other species susceptible to the fungus, even considering the major damages due to the synergistic association of nematodes with the closely related *P. lycopersici* (D'Errico et al. 2019).

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