گزارش کوهته علمی

پوقع بیای ناشی از قارچ

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نام گروه Cylindrocladium buxicola


شناسایی شده. جهان طالب دانشگاه جنگلی یا پاشیدن شناسایی شده. جهان طالب دانشگاه جنگلی یا پاشیدن

سوپزشیون آن زمان‌های قارچ (10) اسپور در میلی‌لیتر آب مقتدر تا

30 گیاه شاهد کامل مایزینی و در انتهای یک دست یک دست یک دست یک دست یک دست

به گیاهان شاهد که آب مقتدر است، ریزه بزرگ‌تری روز آنها باشد.

یک بیماری ناشی از C. buxicola

در اواخر دهه ۱۹۹۰ سالهای آخر از گروه (۳) و (۴) شناسایی شده است. بر اساس معادن موجود، به نظر می‌رسد این گروه از وجود این بیماری در ایران باشد. با توجه به شرایط آب و هوای مناسب برای توصیف بیماری در منطقه، این می‌تواند برای

این گروه خفاف شده یک فاجعه باشد.

C. buxicola

Cylindrocladium buxicola Pojakr.

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Boxwood blight caused by *Cylindrocladium buxicola* in Tonekabon forest. S. Rezaee¹, H. Kia-Daliri², K. Sharifi¹, Y. Ahangaran¹, S. Hajmansoor³.

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Boxwood (Buxus hyrcana Pojark.) is one of the protected evergreen trees species that distributed as compact colonies in the preserved forests of the Caspian Sea region of Iran. During 2012 summer, blight symptoms and severe defoliation of boxwood trees were seen in two colonies in Lirehsar and Jeesa, in the Tonekabon region (Kia-Daliri, unpublished data). The symptoms were characterized by dark spots on leaves with grayish signs of fungus on their back side, followed by rapid death and defoliation. There were also longitudinal dark streaks on different parts of dying stems of twigs. Die-back symptoms were severe in the lower parts of trees, especially in young ones that defoliated, although new leaves appeared but diseased.

Diseased leaves and stems were incubated in a moist chamber at 20-22°C and *Cylindrocladium* sp. was isolated. For morphological characterization, single conidia isolations were made on potato dextrose agar (PDA) amended with 2% malt extract and carnation leaf agar, and incubated at 25°C (4). Colonies grew slowly. The colony reverse was brown in the center surrounded by a creamy mycelial growth. The colony surface was covered by aerial cottony mycelium. Fruiting bodies of the fungus developed after seven days.

Conidiophores growing on the surface of carnation leaves were examined under the light microscope. Conidia were produced on hyaline macroconidiophores with stipe (90-180x2-3 µm) terminating in a naviculate vesicle (6-11 µm) and penicillate phyalids arrangement. Conidia were cylindrical, hyaline, with 1-septum, rounded at both ends (45-65x2-3 µm). Based on these characteristics confirm the fungus identified as *Cylindrocladium buxicola* Henricot & Culham, 2002, syn. *Cylindrocladium pseudonaviculatum* Crous, Groenewald & Hill 2002; teleomorph *Calonectria pseudonaviculata*.

Four potted Buxus hyrcana plants were sprayed with an aqueous conidial suspension (10⁵ conidia/ml) (4) to run off and incubated in growth chamber at 80 to 90% relative humidity in the dark at 25°C for 48 h. Control plants were sprayed with sterile water and incubated in the second tier of the same growth chamber. Thereafter, the plants were transferred to greenhouse at alternating 14 h of light and 10 h of darkness at 20-22°C. A week after inoculation the first lesions symptom appeared, leaf blight developed on all inoculated plants within two weeks, but not the controls. Re-isolations yielded the original pathogen.

*C. buxicola* first reported on boxwood in UK in the mid-1990s (2), also during recent years it was reported as the causal agent of boxwood blight from Turkey (4), and Georgia (3). Based on our knowledge this is the first report of disease in Iran that can be a disaster for the protected species.

**References:**