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A New Anthracnose of *Neoregelia carolinae* Smith var. *tricolor* Hort. Caused by *Colletotrichum gloeosporioides* Penz.

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Colletotrichum gloeosporioides Penz에 의한 *Neoregelia carolinae* Smith var. *tricolor* Hort. 炭疽病

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A severe outbreak of anthracnose on *Neoregelia carolinae* Smith var. *tricolor* Hort. was frequently observed in greenhouses of Gyunggi Province, Korea during survey of plant diseases in September, 1985. Symptom of the disease appeared in the form of small, circular to elliptical, reddish brown spots with yellow margins which measured 2-5 mm in diameter(Fig.1). The symptoms were scattered all over the plant but prominently on the tip or margin sides. At the final stage of the disease, most of the leaves changed to yellowish brown, dried up and died.

The causal fungus was identified as *Colletotrichum gloeosporioides* Penz. according to the classification of Arx(1957). Conidia were elliptical, round at the ends or slightly narrow at one end, and measured 12.0-18.0×4.0-6.0 μm(average 14.6×5.0 μm). Optimum temperature for mycelial growth of the fungus on PDA was 28℃. Perfect stage of the fungus produced in PDA culture was identified as *Glomerella cingulata*(Stonem.) Spauld. & v. Sch. Size of the asci was 50.0-95.0×8.0-10.0 μm(average 70.0×9.6 μm). There were 8 ascospores in an ascus. Ascospores were slightly curved at the centers, and measured 13.0-19.0×4.0-6.0 μm(average 16.2×5.0 μm). The shapes of conidia, asci and ascospores of the fungus are shown in Fig.2. Pathogenicity test by spray inoculation with conidia suspension revealed that the isolates of *C. gloeosporioides* caused the anthracnose on *N. carolinae* var. *tricolor*.

Anthracnose caused by *C. gloeosporioides* has been recorded in many kinds of plants(Arx, 1957; 1970; The Korean Society of Plant Protection, 1986; The Phytopathological Society of Japan,

Fig.1. Symptom of anthracnose on *Neoregelia carolinae* var. *tricolor*.

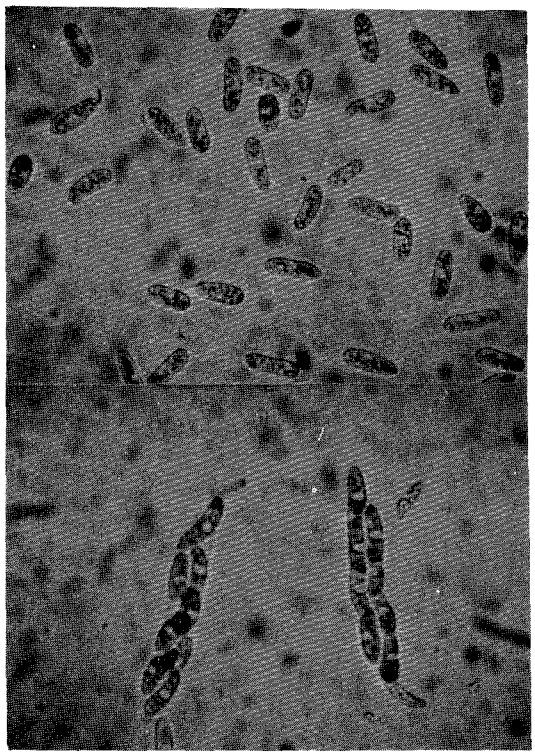

Fig.2. Conidia(upper part) of *Colletotrichum gloeosporioides* isolated from *Neoregelia carolinae* var. *tricolor,* asci and ascospores(lower part) of the perfect stage(×500).

1975-1984 ; U.S.D.A., 1960), but has not been reported earlier on *N. carolinae* var. *tricolor.* Accordingly this report constitutes a new host record of *C. gloeosporioides.*

摘 要

1985년 9월, 경기지방의 꽃 재배온실에서 네오레게리아(*Neoregelia carolinae* Smith var. *tricolor* Hort.)에 탄저병징이 심하게 발생하여, 병반에서 병원균을 분리, 동정한 결과 *Colletotrichum gloeosporioides* Penz.에 의한 것으로 밝혀졌다. 이 균은 PDA 배양에서 완전세대 *Glomerella cingulata* (Stonem.) Spauld. & v. Sch.의 자낭과 자낭포자를 형성하였다. 병징은 2-5 mm 크기로 원형 내지 타원형의 적갈색 반점이며, 반점 주위는 황색을 띄었다. 병이 심하게 진전되면 잎의 대부분이 황갈색으로 변하여 말라 죽었다. 이 균의 분생포자현탁액을 네오레게리아에 분무접종한 결과 병원성이 확인되었다. *C. gloeosporioides*에 의한 네오레게리아 탄저병은 아직까지 보고된 바 없으므로 새로운 탄저병으로 보고한다.

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