

구두발표 초록

O-01. Identification of *Bipolaris setariae*, *Curvularia ergrostidis*, *Phoma glomerata* and *Exserohilum inaequale* Isolated from the Seeds of *Arundinella hirta*. Soon Min Hong¹, Seo Yeon Chang, Sang Jin

Han² and Hee Kyu Kim³. ¹Pusan Branch Office, National Plant Quarantine Service, 10-4, 6, Choongang Dong, Pusan, Korea, 600-016. ²National Plant Quarantine Service, 433-1, Anyang 6 Dong, Anyang, Korea 430-016. ³College of Agriculture, Gyeongsang National University, Chinju, Korea 660-701.

Curvularia ergrostidis, *Bipolaris setariae*, *Phoma glomerata* and *Exserohilum inaequale* were isolated from 400 seed samples of *Arundinella hirta* Tanaka from China. *C. ergrostidis* was the predominant species in the samples followed by *B. setariae*, *P. glomerata*, and *E. inaequale*. The morphological characteristics of the fungi were as follows; *C. ergrostidis* was 3-distoseptate, ellipsoidal or barrel-shaped, the middle septum almost median appearing as a black band, central cells brown to dark brown, end cell paler, rather smooth, and $18-37 \times 11-20\mu\text{m}$ in size. The conidiophore was solitary or in group, simple or rarely branched, straight or curved, multi septate, and variable in length; The conidia of *B. setariae* was slightly curved, rarely straight, fusoid or navicular, pale to mid golden brown, smooth, 5-10 -distoseptate, and $50-70 \times 10-15\mu\text{m}$ in size. The conidiophore was single or in small group, straight to flexuous, septate, smooth, pale to mid brown or olivaceous brown, paler towards the apex, up to $200\mu\text{m}$ long, and $5-9\mu\text{m}$ thick; *P. glomerata* produced dictyochlamydospores commonly arising in unbranched or branched chains of 2-20, resembling the conidia of *Alternaria*, usually $18-20 \times 12-30\mu\text{m}$ in size. Pycnidia was mostly regularly globose and the conidia was ellipsoidal, mostly $6-7 \times 3-4\mu\text{m}$ in size; The conidia of *E. inaequale* was straight to slightly curved, broadly ellipsoidal to almost cylindrical and widening in the middle, brown, 4-5-distoseptate, all the septa thickened and darkened, and central cell often longer and wider than the other cells, $40-65 \times 15-22\mu\text{m}$ in size. The conidiophore was simple, septate, straight to flexuous, geniculate above, smooth, up to $500\mu\text{m}$ long more, and $4.5 \times 7.0\mu\text{m}$ wide. Optimum temperature was examined for conidial germination and mycelium growth on OA and PDA.

O-02. Mycotoxins Produced by *Fusarium* Isolates from Barley Collected from Chungnam Province in Korea. Soh Young Oh¹, Jin-Cheol Kim² and Seung Hun Yu¹. ¹Department of Agricultural Biology, College of Agriculture, Chungnam National University Taejon 305-764, Korea. ²Screening Division, Korea Research Institute of Chemical Technology P. O. Box 107, Yusong, Taejon, Korea.

Thirty-four isolates of *Fusarium* species were isolated from barley seeds collected from Chungnam province in Korea in 1998. The predominant *Fusarium* species isolated from barley were *F. graminearum* and *F. culmorum*. Each isolate was grown on 100g autoclaved wheat for 2 weeks at 25°C, followed by 2 weeks at 10°C for the production of crude cultures. Crude cultures were extracted with aqueous methanol and purified by Florisil column. The column elutes were concentrated and applied to TLC and GC-Mass to detect DON, NIV, 4-ANIV and ZEA. Of the thirty-four isolates of *Fusarium*, 10 isolates produced NIV, 4 isolates produced NIV and ZEA, 2 isolates produced NIV and 4-ANIV, 5 isolates produced NIV, ZEA and 4-ANIV, 2 isolates produced ZEA, and 1 isolate produced ZEA and DON. The mean concentration of DON, NIV and ZEA produced by positive isolates were 0.030, 79 and 198 $\mu\text{g/g}$, respectively.