

Variability of *Corynespora cassiicola* Isolates Infecting Blackgram

D Prasanth kumar, S L Bhattiprolu, G Bindu Madhavi and Ch Chiranjeevi

Department of Plant Pathology, Agricultural College, ANGRAU Bapatla, Andhra Pradesh

ABSTRACT

Corynespora cassiicola is an important leaf spot pathogen with wide host range including blackgram. Studies on *Corynespora* infecting blackgram were limited to the effect of weather parameters on disease severity and screening for resistance. It is necessary to understand the variability of pathogen in relation to its wider adoptability in nature. An investigation to understand the pathogen variability was conducted in blackgram. Six isolates of *C. cassiicola* obtained from different areas of blackgram cultivation were analysed for morphological variability including pigmentation, growth pattern, surface texture, margin, elevation, zonation, aerial hyphae, growth rate of the mycelium, length and width of the conidia and number of pseudosepta. The isolate B2 was statistically superior with 8.65 cm colony diameter after nine days of incubation at $28\pm 1^\circ\text{C}$ whereas B6 (8.04 cm) and B1 (7.98 cm) were on par followed by 7.92 cm in B5 isolate. Average growth rate was found to be higher in B2 (0.376 cm h^{-1}) isolate followed by B6 (0.373 cm h^{-1}). The highest mean conidial length of $57.42\mu\text{m}$ was recorded in B4 isolate followed by $57.17\mu\text{m}$ (B6) and $51.1\mu\text{m}$ (B5). The minimum width of conidia was observed in B-4 ($6.12\mu\text{m}$) supervised by B-6 ($6.53\mu\text{m}$) and B-5 ($7.25\mu\text{m}$). Mean number of highest pseudosepta (5.12 ± 2.14) was found in B6 followed by 4.44 ± 2.08 in B5.

Key Words: *Blackgram, Corynespora cassiicola, pseudosepta and variability*