

# PROGRESSION OF *ALTERNARIA* BLIGHT ON DIFFERENT VARIETIES OF CLUSTERBEAN IN RELATION TO WEATHER PARAMETERS

\*A. K.Meena<sup>1</sup>, S.L. Godara<sup>2</sup>, S. Gangopadhyay<sup>3</sup>, R.S. Jatav<sup>4</sup> and V.R. Meena<sup>5</sup>

<sup>1, 2,&3</sup> Department of Plant Pathology, College of Agriculture, Swami Keshwanand Rajasthan Agricultural University, Bikaner –India – 334 006

<sup>4</sup> Department of Plant Pathology, RCA, MPUA&T, Udaipur (Raj.) 313001

<sup>5</sup> Department of Ag. Entomology, RCA, MPUA&T, Udaipur (Raj.) 313001

Email: [ak\\_patho@rediffmail.com](mailto:ak_patho@rediffmail.com)

**Abstract :** Progression of *Alternaria* blight of clusterbean [*Cyamopsis tetragonoloba* (L.) Taub] caused by *Alternaria cucumerina* var. *cymopsidis* (Rangaswami and Rao) Simmons, was found to be greatly influenced by environmental factors prevalent conditions. The pooled data for both the years (2006 and 2007) revealed that there was periodical increase in blight intensity on all three varieties of clusterbean. However, this increase was more in susceptible variety, RGC-936 followed by moderately resistant, RGC-1003 and resistant, RGC-986. Relative humidity (morning and evening) were found significantly correlated with the progression of blight intensity.

**Keywords :** *Alternaria cucumerina* var. *cymopsidis*, Clusterbean, Disease progression, Environment

## REFERENCES

- Chattopadhyay, C., Agrawal, R., Kumar, A., Bhar, L. M., Meena, P. D., Meena, R. L., Khan, S. A., Chattopadhyay, A. K., Awasthi, R.P., Singh, S.N., Chakravarthy, N.V.K., Kumar, A., Singh, R.B. and Bhunia, C.K. (2005). Epidemiology and forecasting of *Alternaria* blight of oil seed *Brassica* in India a case study, *Zeitschrift-fur-pflanzenkrankheiten-und-pflanzenschutz*. **112** (4): 351-365.
- Dubey, S.C. and Ekka, S. (2004). Influence of weather on development of *Collettrichum* blight of bitter gourd, *Journal of Mycology and Plant Pathology*. **34**(2): 404 - 406.
- Fisher, R.A. and Yates, F. (1956). Statistical tables for Biological, Agricultural and Medical Research 5<sup>th</sup> ed., Oliver and Boyd. Edinburgh.
- Gupta, P.P. (1994). Assessment of yield losses in different genotypes of clusterbean against important diseases, Annual Report of All India Coordinated Research Project of Arid Legumes, pp. 1-14.
- Gupta, P. P., Gupta, V., Singh, J.V. and Singh, V.P. (1998). *Alternaria* blight (*Alternaria cucumerina* var. *cymopsidis*) disease management strategy in clusterbean (*Cymopsis tetragonoloba* (L.) Taub.). (Abstr.) Proc. 7<sup>th</sup> Int. Cong. Pl. Pathol. Edinburgh, Scotland.
- Gupta, R., Awasthi, R.P. and Kolte, S.J. (2004). Effect of sowing date and weather on development of white rust (*Albugo candida*) in rapeseed-mustard, *Journal of Mycology and Plant Pathology*. **34**(2): 441-444.
- McKinney, H. H. (1923). Influence of soil temperature and moisture on infection of wheat seedling by *Helminthosporium sativum*, *Journal of Agricultural Research*. **26**:195-217.
- Mehta, N., Sangwan, M.S., Kumar, R. and Niwash, R. (2008). Progression of *Alternaria* blight on different varieties of rapeseed-mustard in relation to weather parameters, *Plant Disease Research*. **23**(1): 28-33.
- Rangaswami, G. and Rao, A .V. (1957). *Alternaria* blight of clusterbean [*Cyamopsis tetragonoloba* (L.) Taub], *Indian Phytopathology*. **10**: 13-18.
- Saharan, M.S., Saharan, G.S. and Singh, J.V. (2001). Inheritance of resistance in clusterbean to *Alternaria* blight (*Alternaria cucumerima* var. *cymopsidis*) disease, *Journal of Mycology and Plant Pathology*. **31**: 72-75.
- Saharan, M.S., Saharan, G.S. and Gupta, P.P. (2003). Conidial germination of *Alternaria cucumerima* var. *cymopsidis* causing *Alternaria* blight of clusterbean, *Journal of Mycology and Plant Pathology*. **33** (3): 444-445.
- Sangwan, M.S., Mehta, N. and Shrivastava, M.P. (2004). Progression of *Alternaria* blight in relation to weather factors on two varieties of rapeseed-mustard, *Journal of Mycology and Plant Pathology*. **34**(3): 1000.
- Sowell, P.G. (1965). The effect of seed treatment on seed borne pathogens of guar, *Plant Disease Reporter*. **49**: 895-897.
- Yogendra, Singh., Kushwaha, K.P.S., Chauhan, S.S. and Singh, Y. (1995). Epidemiology of *Alternaria* leaf blight of clusterbean caused by *Alternaria cymopsidis*, *Annual Plant Protection Sciences*. **3** (2): 171-172.