International Journal of Agricultural
Science and Research (IJASR)
ISSN(P): 2250-0057; ISSN(E): 2321-0087
Vol. 6, Issue 2, Apr 2016, 35-42

INFLUENCE OF TEMPERATURE, RELATIVE HUMIDITY AND RAINFALL ON DEVELOPMENT OF SORGHUM DOWNY MILDEW DISEASE IN MAIZE (*ZEA MAYS* L.)

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ABSTRACT

Sorghum downy mildew, considered as the top priority biotic constraint limiting maize productivity is caused by Peronosclerospora sorghi. UMI 79 (sorghum downy mildew susceptible) population was screened for sorghum downy mildew in sick plot condition and UMI 936(w) (sorghum downy mildew resistant) population was kept as control. Metrological observations viz., minimum- maximum temperature (^{0}C), relative humidity (%) and rainfall (mm) were recorded during each week. Plants were observed for the disease symptoms each week. Maximum disease buildup was observed in third and fourth week. In the third and fourth week average minimum and maximum temperature was recorded as 21.5^{0}C and 30.9^{0}C respectively, average relative humidity was 93.00% and average rainfall was recorded as 61.80 mm. Thus a temperature ranging from 20^{0}C to 30^{0}C, relative humidity above 90% and medium rainfall are found to be most conducive for development of sorghum downy mildew disease in maize.

KEYWORDS: Maize, Sorghum Downy Mildew, Climate

Received: Feb 03, 2016; **Accepted:** Feb 15, 2016; **Published:** Feb 20, 2016; **Paper Id.:** IJASRAPR20166

Original Article