Hycenth Nahunnaro et al., Agrotechnol 2015, 4:2
http://dx.doi.org/10.4172/2168-9881.S1.015

OMICS International
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4th International Conference on
Agriculture & Horticulture
July 13-15, 2015 Beijing, China

Effect of some environmental factors on incidence and severity of angular leaf spot of cotton in Yola and Mubi, Adamawa state, Nigeria

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Environmental factors such as relative humidity and rainfall generally have been found to increase the incidence, rate of spread and severity of diseases thereby reducing yield of crops. Study was conducted on five cotton varieties, artificially inoculated with bacterial blight pathogen to determine the effects of rainfall and relative humidity on incidence and severity of angular leaf spot (ALS) and yield of seed cotton in Yola and Mubi. Results showed that the severity of ALS was higher in Yola (58.65%) at 13 WAS due to higher relative humidity (76-87%) and low rainfall (2-40.6 mm) which favors disease development as against that of Mubi location which recorded lower severity (51.11%) due to lower relative humidity (42-55%) and rainfall (37-73 mm). Results further revealed that SAMCOT-8 had low incidence and severity in both locations with an incidence of 66% and severity of 39% of ALS at 13 WAS in Yola and 82% incidence and 42% severity in Mubi. SAMCOT-10 and SAMCOT-9 varieties were found to be highly susceptible to the disease at the same period. SAMCOT-8 recorded the highest yield of 390.00 kg ha^{-1} in Yola and 868.09 kg ha^{-1} in Mubi while lowest yields of 227.17 kg ha^{-1} was observed on SAMCOT-10 in Yola and 461.61 kg ha^{-1} was obtained on SAMCOT-9 in Mubi. There is need to conduct further research to confirm the reaction of these varieties in other environments over time.

Biography

Hycenth Nahunnaro is working as Faculty member at Modibbo Adama University of Technology, Nigeria.

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