

Seasonal Variation of Rainfall in Vadamaradchi Area in Jaffna District, Sri Lanka

T. Sellathurai^{1,2*}, T.Mikunthan², S.S. Sivakumar³ and T. Karunainathan⁴

¹Faculty of Graduate studies, University of Jaffna, Sri Lanka

²Department of Agricultural Engineering, Faculty of Agriculture, University of Jaffna, Sri Lanka

³Department of Civil Engineering, Faculty of Engineering, University of Jaffna, Sri Lanka

⁴Agriculture Research Station, Thirunelveli, Sri Lanka

*thusyanthi_sella@yahoo.com

The accurate knowledge of rainfall amount, intensity and frequency and understanding of seasonal and annual pattern of rainfall will help to planning the crop. The shortage or excess of rainfall amount will lead to the reduction in yield. The statistical technique was used to analyze the rainfall in Vadamaradchi area for the period of 2013 to 2019 with the available rainfall data from three agrarian divisions; Ampan, Puloly and Karaveddy. The annual rainfall has decreasing trend. The four seasons are clear and dominated by South west monsoon (SWM) and North East monsoon (NEM) followed by Second inter-monsoon (SIM) and First Inter-monsoon (FIM) in all three areas. Out of total amount of annual rainfall (204.8 mm), 18.52 mm (9.04%) received in FIM season, 70.15 mm (34.25%) received in SWM season, 56.22 mm (27.45%) received in SIM season and 59.92 mm (29.25%) received in NEM season during 2013 to 2019 in Ampan agrarian division. Similarly, 7.31%, 41.10%, 20.07% and 31.52% for Karaveddy and 5.02%, 42.45%, 27.47% and 25.05% for Puloly, respectively, for FIM, SWM, SIM and NEM. The analysis of variance of average monthly rainfall was not significantly differs among three divisions. From this study, it can be concluded that the areas were under dry weather condition with shifting of seasonal rainfall pattern. The SWM and NEM provide high amount of rainfall followed by SIM and FIM. The shifting of seasons was observed clearly. Therefore, further studies are needed to find out the onset and offset of rainfall to plan the cropping pattern.

Keywords: Monsoon, Rainfall, Vadamaradchi