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| **Bibliography** | Wau, W.; Komolong, B. (2022) Virus vectors (aphids and whiteflies) epidemiology in virus-free fields of Beauregard sweetpotato variety, In: Journal of Plant Physiology & Pathology, Vol.10 (1), 1-5, URL: https://doi.org/10.37532/JPPP.2021.10(1).284 |
| **Associated conference** |  |
| **Abstract / Content summary** | Virus diseases transmitted by aphids (Myzus persicae) and whiteflies (Bemisia tabaci) have been one of the major cause of yield decline in sweetpotato (Ipomoea batatas (L.) Lam) in sweetpotato producing countries including Papua New Guinea. In this study, the epidemiology of aphids and whiteflies was investigated at the National Agriculture Research Institute Momase Regional Center Bubia, in 2015. Virus-free sweetpotato variety of Beauregard was planted in two separated observatory plots on a field where different crops were grown. Virus vectors incursion were systematically sampled on weekly basis using binomial sampling technique throughout the growing period. It is observed from the result that virus vectors start moving into the crop soon after establishment of the sweetpotato plants. Incursions in particular happened from other crops growing adjacent to the sweetpotato trial plots. Whiteflies were observed to colonize sweetpotato plants all throughout the growing period but rarely occur with aphids. Whitefly and aphids population fluctuated at different times but generally peaked during high rainfall months and towards harvest. High population densities of vectors were discovered mostly at the edges of the trial plot with minimal virus symptoms expressed. In terms of sweetpotato virus management, these may suggest that farmers should clear weeds Keywords: Vectors (Aphids and Whiteflies), Virus-free material of Beauregard, Virus, Host, Incursion, Population density, Re-infection |
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