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Assessing the host range of Dodder (Cuscuta campestris Yunck) among crops in Adamawa State, Nigeria

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Species of the parasitic plant genus Dodder (*Cuscuta* spp. *Cuscutaceae*) are distributed worldwide. They are able to attack many plant species, including crops that are important to the people of Adamawa state. The host range of this weed is not entirely known yet. Such understanding is particularly important with respect to valuable crops grown in this area. Dodder extracts all its nutrients and water requirements from the host plant and shades the crop with its dense stem mass, thereby reducing crop yields. An experiment was carried out to determine the host range of *Cuscuta campestris* among different food crops, and the levels of damage it causes on each host. A pot experiment was conducted in a screen house of the Modibbo Adama University of Technology, Yola, Adamawa State, Nigeria. Nine different crops were used: cotton (*Gossypium herbaceum*. L), tomato (*Lycopersicon lycopersicum* L), pepper (*Capsicum frutescens* L), soybean (*Glycine max* L.), cowpea (*Vigna unguiculata* L. Walp), groundnut (*Arachis hypogaea* L.), sorghum (*Sorghum bicolor* L. Moench), maize (*Zea mays* L.) and rice (*Oryza* sativa L.). The treatments consisted of infestation and parasite-free conditions and were arranged in a completely randomized design (CRD) with four replications. Soybean, cowpea and groundnut had the highest *Cuscuta campestris* cover scores among the test crops, followed by tomato, pepper and cotton. Across all the infested crops biomass of infested plants was decreased compared with the control treatments with the exception of groundnut that recorded an increase. It can be concluded that soybean, cowpea, groundnut, tomato, pepper and cotton. While, sorghum, maize and rice were are not sensitive to *Cuscuta campestris*.

Biography

Mustapha A B has completed his PhD from Modibbo Adama University of Technology, Yola, Nigeria. He is the Departmental PG Coordinator of Crop Production & Horticulture, and also served as Departmental Exam Officer from 2001 to 2006, Departmental SIWES Coordinator from 2010- 2014. He is a member of Weed Science Society of Nigeria (WSSN), Horticultural Society of Nigeria (HORTSON), Agricultural Society of Nigeria (ASN) and Asian Weed Science Society (IWSS). He has published more than 15 papers in reputed journals and attended more than 13 national and international conferences.

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