

Building capacity in plant nematology in sub – Saharan Africa: contributions by nematology initiative of east and southern Africa (NIESA)

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Plant nematology in sub - Saharan Africa continues to lag behind other disciplines mainly because those trained in the discipline spend a significant proportion of their time in other disciplines and lack peer support as most of the trained nematologists work on their own. Further to this, there is inadequate support from policy makers due to the perception that the nematodes are not as important as other biotic and abiotic stresses and lack of awareness by the farmers of even the existence of the nematodes. Due to this, yield losses of up to 60% on cash and food crops are common in the region. A survey conducted in 1996 by CABI Bioscience aimed at identifying sources of taxonomic expertise in nematology revealed that outside of South Africa, there were only two practicing nematode systematists in Africa. Another survey commissioned by Gatsby Charitable Foundation (GCF) in 2003 to determine capacity needs in plant nematology in East and Southern African region revealed similar findings. To address this need, GCF funded a five year regional project (2005- 2010) on capacity building in plant nematology. This project covered Kenya, Malawi, Uganda, Tanzania and Zimbabwe, and received technical support from CABI Bioscience, Rothamsted International and the University of Reading in the UK. One of the project results was the establishment of NIESA in August 2005 with the primary aim of promoting plant nematology in the region. Since its inception, four MSc and three PhD students have completed their studies. Sixty scientists from Tanzania, Kenya, Mozambique, Uganda, Zimbabwe, Malawi, Southern Sudan and Rwanda have also been trained through workshops. The initiative has also developed a plant nematology training manual; established and fully equipped six nematology laboratories in the region; developed an interactive website (<http://www.africannematology.info/index.asp>); established links with Nematological Society of South Africa (NSSA) and undertaken several joint research projects. The capacity building efforts by NIESA have, however, focused mainly on postgraduate and research scientists, and there is still a need for vocational training targeting extension officers, NGOs and farmer groups. An advocacy program targeting decision and policy makers is needed to convince them about the damaging effects of nematodes, and the need for increased investment on soil health.

Whereas most of the nematology research conducted in the region has centered on the control and management, there is minimal work on taxonomy due to the lack of trained taxonomists. The scope needs to be broadened to cover all aspects of plant nematology and other biotic and abiotic interacting factors within the context of soil health.