Objective:
To determine the dynamics of the Napier stunt phytoplasma between the wild and cultivated grasses in order to facilitate development of an integrated management approach for Napier stunt disease in East Africa.

Methods:
Surveys will be conducted in Napier stunt disease (NSD) endemic areas in Uganda, Kenya and Tanzania. Wild grasses collected will be identified using available keys or by barcoding and examined for the presence of phytoplasma using nested PCR. Universal primers based on the 16S rDNA sequences will be used. Grasses containing phytoplasma will be used as the inoculum source in a disease transmission cage using insects; Maiestas banda to evaluate threats posed by NSD to cultivated cereal crops.

Expected outputs from the project:
The study seeks to contribute to the development of an integrated management approach for the disease by tackling a very innovative and critical component, which is the disease dynamics between cultivated and non-cultivated graminiae.

Impact of the outputs on agriculture in Africa:
To generate insights into the role of wild hosts in the dynamics of NSD and inform on the threats of the same on cultivated cereals in East Africa. To generate information critical in developing an integrated management approach for the disease, while building human capacity in the area of disease diagnosis and management.