

Using predatory ants for the control of sweet potato weevil

Recognize the problem

The sweet potato weevil ('tumbu') is one of the most important pests of sweet potato both in the field and in storage. It can reduce yields in the field and lead to poor quality tubers in storage. The tumbu starts to attack the sweet potato in the field and continues in storage. The adult weevil is small and blue-black in colour with a hard body and a long nose.

Adult sweet potato weevil. (Photo by G Goergen, IITA)



Background

Adult weevils attack the leaves, vines and tubers and bore holes in the tubers in which they lay their eggs. Fungal and bacterial infections start in the bore holes caused by the larvae ('tumbu') which result in rotting of the tubers.

The use of natural enemies (i.e. using small tumbu such as ants to control other tumbu) has been shown effective in the control of sweet potato weevils in Kenya and other places.

Management

There are black ants commonly found nesting in banana leaves. These are predatory ants and feed on other insects (tumbu) such as the sweet potato weevils. Follow these steps to transfer black ants in to sweet potato fields:

Damaged tubers. (Photo by N Smit, Lucid keys)



- Cultivate sweet potato fields close to or within the banana plantation to ease transportation of these ants into the field
- Ants normally use young banana leaves for nesting, check for leaves with a large number of ants. Carefully cut these rolled leaves and place on sweet potato beds
- Where ants have not nested but are plentiful on banana stems, place young banana leaves at the bottom of the stem for ants to nest in
- Move these leaves into the sweet potato field for the ants to look for their prey

However, please note that other beneficial insects (e.g. lady bird beetles) could be eaten by these ants.

Scientific name(s) > *Cylas puncticollis*

The recommendations in this factsheet are relevant to: Sierra Leone



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