

## RESEARCH NOTES

**SPOILAGE OF COPRA BY *PENICILLIUM*  
*FREQUENTANS* WESTLING**

Copra (dried kernel of *Cocos nucifera*) is susceptible to infection and spoilage by a number of fungi during the process of drying and in storage. Many previous workers have reported that copra remained practically free from mould infection if the moisture content was 5 percent or below.

During the course of our investigations in this Laboratory on the microorganisms associated with the spoilage of copra, the fungus *Penicillium frequentans* was invariably found to infect copra in storage even when the moisture content was 4 percent or slightly below. At this moisture level no other fungus was found to infect copra. The infection started as small whitish grey patches on the inner surface of the cup and in the course of 1 to 3 weeks the entire inner surface was covered by the fungus growth giving a grey appearance. The fungus was found to sporulate heavily, each conidial chain containing 40 to 50 spores. The conidial chain got detached even by a gentle tapping and the dry powdery mass of spores accumulated in the cup.

It did not cause significant quantitative loss at this low moisture level since the growth was superficial and there was no penetration. But from organoleptic tests, it was found to produce off-flavour and rancidity in the course of one week of the infection. In 2 to 3 weeks the rancidity had developed to a point where the copra had become inedible.

This fungus is likely to pose a problem in the preparation of copra meant for edible purposes, as a higher degree of dehydration than is generally given to copra will be required to prevent its development in storage. Storage will have to be done in containers which will prevent ingress of environmental moisture.

This fungus has not been reported earlier as a spoilage causing organism in copra.

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Industrial Testing & Research  
Laboratory, Trivandrum-19.

M. K. Chandrasekharan Nair  
H. Sreemula Nathan

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