

Coconut Aspergillus mould (233)

Summary

- Worldwide distribution. In warm temperate and tropical countries. On many hosts, growing on dead organic matter, both plant and animal. Important as a post-harvest mould of maize, peanut and copra. An important disease, because of its aflatoxin causing severe diseases in livestock and humans.
- Worse: (i) moisture stress >20 days before harvest; (ii) crop is over-mature; (iii) there is insect damage; (iv) moisture content > 10%, and stored at high humidity.
- Cultural control: spacing (30 plants/m²); adequate nutrition; avoid end-of-season drought (if possible irrigate); for peanut - before or at harvest: (i) remove dead plants; (ii) check pod colours for correct time (they should have turned pink); (iii) invert plants after harvest and dry for 3-5 days; dry to 8%; for maize - dry to 13-15%; for copra - dry to 5-7% (until it is brittle and breaks easily); for all crops - new bags, and airy, dry, insect-proof store. Rotate crops, leaving a 3-4-year interval between crops of maize or peanuts planted on the same land.
- Chemical control: seed – mancozeb; control insects during growth of the crop, and during storage.

Common Name

Copra mould, Aspergillus ear rot (of maize), yellow mould of peanut, storage rot of groundnut.

Scientific Name

Aspergillus flavus



Photo 1. *Aspergillus flavus* sporulating on copra.



Photo 2. *Aspergillus flavus* sporulating on seed of peanut inside damaged pods.



Photo 3. Maize cob with infected kernels of *Aspergillus flavus*.



Photo 4. Close up of maize kernels to show sporulating colonies of *Aspergillus flavus*.

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Information from CABI (2015) *Aspergillus flavus* (Aspergillus ear rot). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/7432>); and from Mycotoxins. World Health Organization. (<https://www.who.int/news-room/factsheets/detail/mycotoxins>). Photo 1 Kohler F, et al. (1997) *Diseases of cultivated crops in Pacific Island countries*. South Pacific Commission. Pirie Printers Pty Limited, Canberra, Australia; Photo 2 Aflatoxin in peanuts. Department of Agriculture and Fisheries, Queensland Government. Photo 3 Department of Plant Pathology Archive, NCSU, Bugwood.org; Photo 4 Harry Duncan, NCSU, Bugwood.org.

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