

## Cocoa vascular streak dieback (223)

### Summary

- Widespread distribution. Asia and Oceania. On cocoa and avocado. An important disease.
- Leaves up to 1 m behind the shoot tip turn yellow with greenish spots. Other leaves are affected and fall. Leaf scars show brown vascular bundles; internally browning extends along the stem. Infection spreads to other branches and tree dies. The fungus grows from the leaf scars, forms spores which are spread by wind, and these infect the leaves.
- Cultural control: pruning, but only on those trees with some resistance; tolerant varieties have been bred in Papua New Guinea.
- Chemical control: none recommended.

### Common Name

Cocoa vascular streak dieback

### Scientific Name

*Oncobasidium theobromae*



Photo 1. A branch affected by vascular streak dieback, *Oncobasidium theobromae*, where the leaves have mostly fallen.

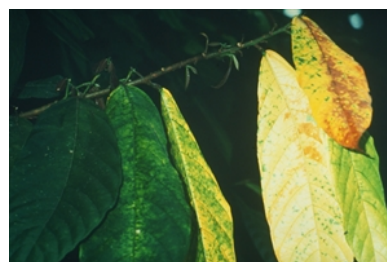


Photo 2. Yellow leaves with green spots, and abnormal development of axillary buds, on a cocoa branch affected by vascular streak dieback, *Oncobasidium theobromae*.

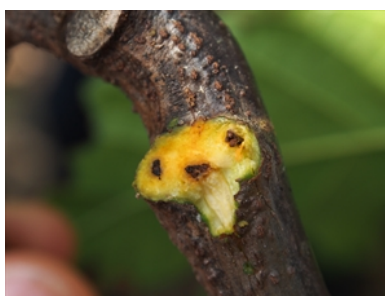


Photo 4. Cocoa leaf scar showing discoloured vascular tissues (xylem and phloem), a characteristic sign of infection by the fungus, *Oncobasidium theobromae*.



Photo 3. White sporulating growth of the vascular streak dieback fungus, *Oncobasidium theobromae*, on a cocoa branch.

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Information (and Photo 1) from CABI (2012) *Oncobasidium theobromae* Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/37439>); and from End MJ, et al. (Eds.) 2017. Technical guidelines for the safe movement of cacao germplasm. Revised from the FAO/IPGRI Technical Guidelines No. 20 (Third Update, October 2017). Global Cacao Genetic Resources Network (CacaoNet), Bioversity International, Rome, Italy. ([https://www.cacaonet.org/fileadmin/templates/CacaoNet/Uploads/publications/Safe\\_Movement\\_Guidelines\\_2017\\_En.pdf](https://www.cacaonet.org/fileadmin/templates/CacaoNet/Uploads/publications/Safe_Movement_Guidelines_2017_En.pdf)). Photos 2&3 Chris Prior, Royal Horticultural Society, Wisley Laboratory, UK. Photo 4 Richard Markham, ACIAR, Canberra.

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