



## Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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### Paddy straw mushroom (433)



Photo 1. Button stage of the paddy straw mushroom, *Volvariella volvacea*, showing many still enclosed in the veil, and others where the veil has broken.



Photo 2. Young paddy straw mushroom, *Volvariella volvacea*, showing the broken veil on top of the cap and at the bottom of the stem. Note the radiating hairs of the cap.



Photo 3. Paddy straw mushrooms, *Volvariella volvacea*, at Honiara market, Solomon Islands. Note the dark centre to the cap, the variation in colour between caps, from silvery-white to brownish-grey, and the radiating striations.



Photo 4. Paddy straw mushroom, *Volvariella volvacea*, showing the lack of a ring on the stem or stipe. Compare with the death cap (Photo 5).



Photo 5. Death cap, *Amanita phalloides*, clearly showing the ring on the stem. This mushroom is deadly poisonous.

### Summary

- Widespread. East and Southeast Asia, and introduced in many other regions, including Africa, North America, Australia. In Solomon Islands.

- Not a pest, an edible mushroom. In button stage similar to highly poisonous death cap, *Amanita phalloides*, which causes liver and kidney failure.
- Found naturally on wood chip piles, garden soil, compost heaps and, in Pacific island countries, on decaying sago palm trunks and empty oil palm fruit bunches. Commonly grown commercially on rice straw beds and picked immature before greyish-brown veil ruptures leaving the torn volva at the base. Sold fresh, canned or dried.
- Cap 5-12 cm diameter, broadly convex or bell-shaped, dark grey in centre, becoming silvery-white or brownish-grey towards margins, radially streaked with soft hairs. Tends to split at edges. Gills free from stem, brownish-pink. Stem 6-12 cm, whitish or brown.
- Differences from death cap: i) pink spore print – death cap white; ii) no ring on stem – death cap has white membranous ring; iii) different distributions - but common hosts for death cap (oak, chestnut and pine) have been moved around the word (with the fungus).
- NOTE, THE TWO FUNGI CANNOT BE DISTINGUISHED IN THE BUTTON STAGE.

## Common Name

Paddy straw mushroom, straw mushroom, Chinese mushroom.

## Scientific Name

*Volvariella volvacea*

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Information from Pacioni G (1993) The MacDonal Encyclopedia of mushrooms and toadstools. Little, Brown and Company (UK) Limited. London; and *Volvariella volvacea*. Wikipedia. ([https://en.wikipedia.org/wiki/Volvariella\\_volvacea](https://en.wikipedia.org/wiki/Volvariella_volvacea)); and *Amanita phalloides*. Wikipedia. ([https://en.wikipedia.org/wiki/Amanita\\_phalloides](https://en.wikipedia.org/wiki/Amanita_phalloides)); and Kuo M (2018) *Volvariella volvacea*. Mushroom Expert.Com. ([http://www.mushroomexpert.com/volvariella\\_volvacea.html](http://www.mushroomexpert.com/volvariella_volvacea.html)); and *Amanita phalloides* (2020) Wikipedia. ([https://en.wikipedia.org/wiki/Amanita\\_phalloides](https://en.wikipedia.org/wiki/Amanita_phalloides)) and from FAO (2017) Straw mushroom (*Volvariella volvacea*) cultivation for livelihood diversification in Laos. Food and Agriculture Organization of the United Nations. (<http://www.fao.org/3/ca4450en/ca4450en.pdf>). Photo 1 Chong Fat (<https://commons.wikimedia.org/wiki/File:StrawMushroom.jpg>). Photo 4 Len Worthington *Volvariella volvacea* (Bul.) Singer (1951). (<https://www.flickr.com/photos/lenmyworthington/16265718515/>). Photo 5 Archenzo. *Amanita phalloides*. Piacenza's mountains ([https://en.wikipedia.org/wiki/Amanita\\_phalloides](https://en.wikipedia.org/wiki/Amanita_phalloides)).

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