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Effects of culturing rapeseed meal, soybean meal, macrophyte meal, and algal meal with three species of white-rot fungi on their *in vitro* and *in vivo* digestibilities evaluated using rainbow trout

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Highlights of the manuscript

- Fungal fermentation of plant feed ingredients substantially increases the protein content and decreases the fiber content at low cost and effort.
- Fungal fermentation of plant feed ingredients substantially increases phosphorus availability, and decreases phosphorus excretion by fish.
- This work is novel because the use of fungal fermentation has been little studied in fish feeds, and because the effect of fermentation was explicitly evaluated not only by chemical analyses of the fermented materials, but also by *in vivo* fish digestion trials.
- The findings of the present study will accelerate the research of fungal fermentation in fish feed and nutrition, and will increase the sustainability of world aquaculture, both economically and environmentally.

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