

## Experimental study on emission mechanism of shiitake mushroom spore - Shape characteristics of spore particles -

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Huge amount of radioactive materials was emitted to natural environment by FDNPP accident and those were deposited on forest and soil grounds. Recent study shows the concentration of radiocesium in atmosphere increases in summer in mountain area in Namie town, Fukushima prefecture. For this reason, gene analysis clarified the contaminated mushroom spores cause such seasonal variation. In order to consider the long-term effect on human health, evaluations of the amount of emitted spore and characteristics of its seasonal variation is important. However, there are few study focus on the emission mechanism of spore. In this study, particle size and shape of a shiitake mushroom are measured in laboratory. The results show the area equivalent particle diameter of fresh spore and dry spore are  $4.44 \pm 0.35 \mu\text{m}$  and  $3.93 \pm 0.94 \mu\text{m}$ , respectively. The shape of fresh spore is oval and the length of long axis is about 1.5 times longer than that of short axis.

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