

## عنوان مقاله:

Cultivation of straw mushroom (*Volvariella volvacea*) on oil palm empty fruit bunch growth medium

## محل انتشار:

مجله بین المللی بازیافت مواد آلی در کشاورزی، دوره 8، شماره 4 (سال: 1398)

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## خلاصه مقاله:

**Purpose** The research aimed to study the effects of size reduction and composting duration of empty fruit bunches (EFB) on straw mushroom production, and to examine the doses of fertilizers commonly used among farmers. **Methods** The experiment was done in two stages. The first stage was for identifying the optimum physical parameters of EFB, and the second stage focused on enhancing the performance of EFB chosen based on the findings of the first experiment. A randomized complete block design with  $3 \times 3$  factorial arrangement in both stages of the study used the same approach. The first stage had three levels of aggregate sizes factor (S) and three levels of composting duration factor (C) of EFB. The second stage had three levels of NPK factor (N) and three levels of organic fertilizer factor (O). **Results** Whole stalk EFB had the highest productivity of  $2458.47 \pm 1015.23 \text{ g m}^{-2}$ . The supplementation of fertilizers increased the EFB decomposition rate and productivity to  $2950.24 \pm 208.50 \text{ g m}^{-2}$ , and nutritive values (particularly for protein content of  $41.00 \pm 3.79\%$ ). Averaged biological conversion efficiency (BCE) was also improved from  $3.61 \pm 1.22$  to  $6.56 \pm 0.46\%$ . **Conclusions** EFB did not need to be cut into smaller pieces, and should not be composted for more than 8 days, because there was a tendency to decrease yield. Supplemental fertilizers increased the decomposition rates of EFB as well as the yield and nutritive values of straw mushroom. BCE can potentially be improved by increasing the dosages of fertilizers.

## کلمات کلیدی:

**لینک ثابت مقاله در پایگاه سیویلیکا:**

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