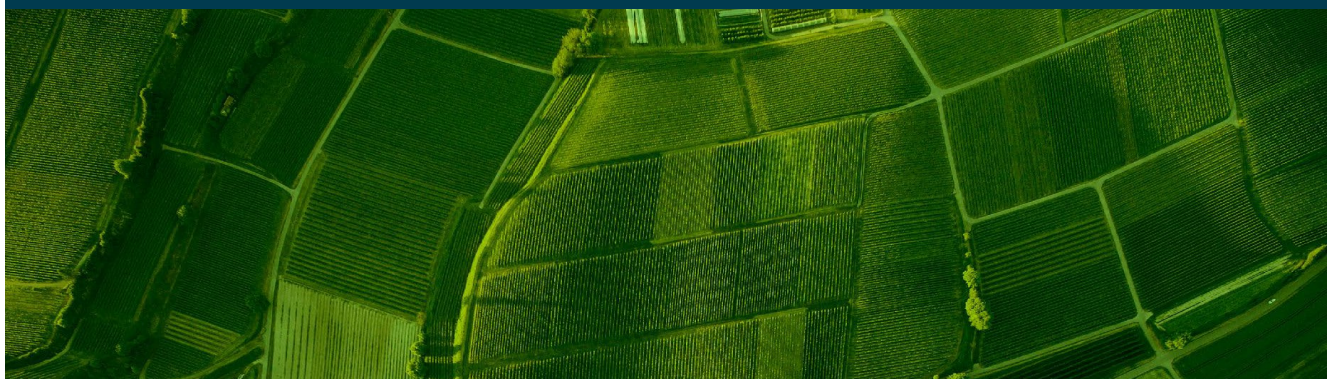


Practice Abstract No 39

Extension of self-life of the fresh oyster mushroom by drying



Description

The oyster mushroom, *Pleurotus ostreatus*, is considered as an easy-to-grow, high yielding and delicious flavouring mushroom with high nutritional value. In addition, the cultivation of mushroom has a great potential for recycling of cellulose agro-residues and other wastes. However, the quality of the oyster mushroom deteriorates during post-harvest storage. The resulting poor quality limits the economic value of oyster mushroom. Therefore, it is necessary to evaluate different preservation techniques to prolong the self-life until the processing of mushroom.

A long-term storage technique that preserves the quality of the mushroom while also enhancing their flavour is dehydration. CNTA is currently evaluated the effect of different dehydration conditions on the quality of rehydrated mushroom. At that moment, two different temperatures have been evaluated (60 °C and 80 °C). As expected, an increase in the drying speed with the increase of drying temperature was observed. This implied in a reduction of 29.6 % in the process time when the drying temperature changed from 60 to 80 °C (Figure 1). No significant differences were observed in mushroom appearance after drying at the temperatures of 60 and 80 °C (Figure 2A and 2B, respectively). However, the rehydration capacity decreased with increasing drying temperature, which could be associated to the stronger mushroom structure deformation at higher temperatures. These results show the importance of optimizing drying conditions to achieve a high-quality mushroom.

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Stakeholders

Mushroom farmers, Food processors, consumers

Country/Region

Europe

Keywords

Dehydration, cellulose agro-residues, rehydration capacity



About CO-FRESH

The CO-FRESH project aims to provide techniques, tools and insights on how to make agri-food value chains more environmentally sustainable, socio-economically balanced and economically competitive. The project pilots several agri-food value chain innovations to see how they, in combination, can improve environmental and socio-economic sustainability.

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