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Recent advances in quality preservation of postharvest mushrooms (*Agaricus bisporus*): A review

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1 **Recent Advances in Quality Preservation of Postharvest Mushrooms**

2 **(*Agaricus bisporus*): A Review**

3
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8 **Abstract**

9 *Background:* *Agaricus bisporus* is the mushroom with the highest global production yield. However, due
10 to their natural unprotected structure, the shelf-life of these mushrooms is quite short. During the
11 postharvest period, mushrooms experience continuous quality degradation, presenting discolouration,
12 moisture loss, texture changes, microbial count increase, and nutrient and flavour loss. In order to
13 maintain the postharvest quality and to extend the shelf-life of mushrooms, postharvest preservation
14 techniques including physical, chemical and thermal processes are essential.

15 *Scope and Approach:* This review summarises quality degradation processes (i.e., moisture loss,
16 discolouration, texture changes, microbial count increase, and nutrients and flavour loss) of mushrooms,
17 analyses their influential factors (i.e., temperature, relative humidity, water activity, and respiration rate),
18 and provides recent advances of techniques (i.e., drying, cooling, packaging, irradiation, washing, and
19 coating) for mushrooms preservation.
20

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