

Title Production, formulation and antagonistic activity of the biocontrol like-yeast *Aureobasidium pullulans* against *Penicillium expansum*

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Abstract

Aureobasidium pullulans (de Bary) Arnaud (Ach 1-1) was grown in a glucose fed-batch fermentor to 106 g dry wt l⁻¹ in 48 h. The cells were dried in a fluidized bed dryer with a final viability of 62%. After 7 months at 4°C, the viability was 28% of the initial value (= 2.3 × 10¹⁰ c.f.u. g⁻¹ dry matter). A protection level of 89% was achieved with the biomass preparation at 1 × 10⁸ c.f.u. ml⁻¹ after 28 and 7 days for apples stored respectively at 5 and 25°C against *Penicillium expansum*. Our process is suitable to produce large quantities of the strain Ach 1-1 as biological control agent for apple preservation.