

**Title** Powder formulation of the postharvest biocontrol agent *Candida membranifaciens*  
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#### **Abstract**

The biocontrol yeast *Candida membranifaciens* can effectively reduce blue mold of apple fruit during storage. To produce commercial biocontrol agents (BCAs) successfully, it is important that cheap and economic substrates are used which support high numbers of good quality inoculum. In this study formulations of *Candida membranifaciens* yeast that grown on a cane molasses-based medium with different carriers, talc, kaolin, rice bran and wheat bran prepared and the viability of yeast in formulations was determined over a six month period at two different temperatures. Formulation that containing wheat bran as carrier, had a significantly higher viable yeast cell content over a six month storage period. Formulations stored at  $4 \pm 1^{\circ}\text{C}$  had a longer shelf life than those stored at  $24 \pm 1^{\circ}\text{C}$ . The shelf life at  $24 \pm 1^{\circ}\text{C}$  was about 4 months for most formulations after which yeast cell viability reduced markedly. This study shows that a suitable powder formulation for commercial application can be produced with high viability and conservation of biocontrol efficacy.