**Production of Baker’s Yeast Using Seawater-based Media**

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**Abstract**

Use of seawater rather than potable water for fermentation is still a relatively unexplored area of research. Baker’s yeast production consumes large amount of freshwater, where production of one ton of fresh yeast requires 10 cubic meters of potable water. In this work, we demonstrate a method for baker’s yeast production using seawater-based medium (SWM) with comparison to the traditional production using freshwater-based medium (FWM). The growth assessment at OD600 of a commercial baker’s yeast strain and the NCYC strain ‘*S.Cerevisiae* 2592’ showed no significant difference when SWM or FWM was used.

Rising power (RP) in dough of both strains was assessed after propagation using SWM and FWM. The commercial strain and NCYC strain were able to produce enough gas to double the dough volume in 75 and 85 min. respectively when they were grown on SWM.

The commercial strain and NCYC strain were propagated using molasses media prepared from seawater and tap water and produced yeast were used to bake Baggett bread. A sensory test was carried out and reviled no significant difference in taste when seawater or tab water used for baker’s yeast production however, the flavour was more favoured when seawater used for preparing the media. These results suggest the possibility for production of baker’s yeast using seawater with no effect on yield, raising power, baking properties and quality of the products.