

**USE OF OXONIA ACTIVE AND ASEPTO IN THE PRODUCTION  
LINE OF SET YOGHURT AS DISINFECTANTS**

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Yoghurt is a fermented dairy product obtained from lactic acid fermentation. One of the major problems of yoghurt production is microbial contamination while manufacturing. This study was carried out to find out the best concentrations of oxonia active and asepto as disinfectants in the production line of set yoghurt.

Four different dilutions of oxonia active (0.15% (v/v), 0.2% (v/v), 0.5% (v/v) and 1% (v/v)) and asepto (0.5% (w/v), 1% (w/v), 1.5% (w/v) and 2% (w/v)) were used in the laboratory experiment. Rideal-walker test was done to select the best concentrations of these disinfectants based on bactericidal power. Lowest concentrations of oxonia active (0.2% (v/v)) and asepto (1.5% (w/v)) were used to destroy the microorganisms present in the production line of set yoghurt in alternative days. Swabs were taken from different places of the yoghurt processing plant for microbial analysis. Acidity, pH and presence of coliform of the yoghurt were measured at 1<sup>st</sup>, 5<sup>th</sup>, 9<sup>th</sup> and 14<sup>th</sup> day. Data were analyzed using ANOVA ( $\alpha=0.05$ ) and mean separation was done with Duncan's New Multiple Range Technique (DNMRT).

Results revealed that acidity and pH values of yoghurt were not significantly different ( $P>0.05$ ) after using the two disinfectants in the production line. However, it was further observed that there was a significant difference ( $P<0.05$ ) of acidity and pH values of yoghurt during the storage period. Microbial analysis showed that there was no presence of coliform bacteria in swabs and no subsequent growth of coliform bacteria was observed in yoghurt stored at refrigerated temperature (5<sup>o</sup>C to 7<sup>o</sup>C) for a period of 14 days. Finally, it can be concluded that 0.2% (v/v) oxonia active and 1.5% (w/v) asepto could be used as disinfectants in the production line of set yoghurt in alternative days.

**Key words:** Asepto, Disinfection, Oxonia active, Yoghurt