World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:8, No:06, 2014

Decreasing of Oil Absorption in Vacuum Fried Mango Chips by Using Hydrocolloids

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Abstract : Objective of this study was to investigate hydrocolloids (pectin, carboxyl methylcellulose, and alginate) for their influences on the oil absorption in vacuum fried mango chips. Usage of hydrocolloids significantly ($p \leq 0.05$) affected fried mango oil uptake. Control samples (without hydrocolloids) had high fat content at 24.57g/100g whereas other samples, treated with 0.5g pectin/100ml water exhibited the highest decrease of oil absorption. Fat content of chips, treated with 0.5 g pectin /100ml was 14.01g/100g. With this concentration of pectin at 0.5 g /100ml, fat content could be reduced by 43%. Moreover, chips treated with 0.5 g pectin/100ml water had the highest sensory scores (color, appearance, crispiness and overall acceptability). These results showed that pectin was the most effective hydrocolloid for low fat vacuum fried mango chips production.

Keywords : alginate, carboxyl methylcellulose, hydrocolloids, oil absorption, pectin, vacuum fried mango chips
Conference Title : ICAFE 2014 : International Conference on Agricultural and Food Engineering
Conference Location : New York, United States
Conference Dates : June 05-06, 2014