Potential Application of Unconsumed Liquid from Commercial Canned Food Products in Fabrication and Characterisation of Non-Dairy Edible Foam

ABSTRACT

Nowadays, the number of people restricted to consume egg and dairy products are increasing. Consequently, product formulation has to be tailored to suit with that dietary requirement. Therefore, this research is conducted to screen and characterise the properties of alternative sources for foam development from various canned pulses and vegetables. About 24 canned samples from many available pulses and vegetables canned food products were screened and compared to the egg white liquid as control. The overrun, air phase, foam density and drainage ratio were evaluated to identify potential foamation of non-dairy edible foam. The results showed that the overrun of Vegetable A and D, Pulses N, P, R and X were greater than 1000%, and comparable to egg white (p<0.05). This leads to increase the air phase with low density and high stability of non-dairy edible foam were formed (p<0.05). However, high drainage ratio was obtained in Vegetable A, C and D (p<0.05). In conclusion, there are 4 pulses and 2 vegetables canned samples showed capability to expand, producing light and stable foams comparable to egg white foam.