

## Quality characterization of burger affected by soybean additives (Natto & protein hydrolysate) and ascorbic acid

**Authors :** Marwa H. Mahmoud, Ferial M. Abu-Salem

**Abstract :** Soy protein is a common ingredient added to processed meats to enhance the products' functional characteristics. In our study, soybean products (fermented soy Natto and protein hydrolysate) with or without ascorbic acid were added to burger in order to improve its quality characterization. Results showed that soy additives significantly increased moisture and protein content and reduced ( $P < 0.05$ ) fat values. Ash content did not affect ( $P < 0.05$ ) with Natto addition. Color tools, lightness and yellowness were higher ( $P < 0.05$ ) for the samples with added soybean products (with or without ascorbic acid), while redness decreased. Both of protein hydrolysate and ascorbic acid increased the softness while, Natto additive increased the hardness of samples. Natto & protein hydrolysate additives increased the total volatile basic nitrogen while, samples with ascorbic acid decreased TVBN values at significant levels. On the other hand, soy additives were improved both of cooking quality and sensory evaluation of the burger.

**Keywords :** burger, protein hydrolysate, fermented soy Natto, quality characterization

**Conference Title :** ICEP 2014 : International Conference on Electronic Publications

**Conference Location :** journal city, WASET

**Conference Dates :** November 23-23, 2014