

ABSTRACT

Starch was commonly added into Plant-Based Meat Alternative production as a filler and binding agent since it could improve the texture (springiness and hardness) as well as WHC and quality of cooking. Gelatinization of starch prior to the incorporation process was believed to be able to perform rapid gelation while mixing, therefore, it provided greater binding ability for the product. The objective of the study was to investigate the effect of gelatinized potato starch, corn starch, and combination of both starches on the physicochemical of plant-based patties compared to the commercial beef patty as well as to observe the storage properties of the modified plant-based patties. Two different concentrations of each type of gelatinized starch was investigated, including 1% and 2.5%, and then the modified plant-based patties were stored for 6 days. The physicochemical analysis includes the observation of hardness, springiness, cooking loss, and moisture retention. Meanwhile, the storage properties were measured by analyzing the physicochemical properties during storage. The data obtained were further analyzed using descriptive analysis. The result showed that plant-based patty tend to resulted in better performance when compared to commercial beef patty for cooking loss and moisture retention. As for hardness and springiness, corn starch 1% tend to resulted in value closer to commercial beef patty. In terms of storage, modified plant-based patties tend to result in fluctuating trends that are hard to be identified individually. For further studies, it is recommended to increase the sample size and perform identical cooking conditions.

keyword: corn starch, potato starch, gelatinized starch, plant-based patty