

Palm oil shortening effects on baking performance of white bread.

ABSTRACT

The effect of the addition of palm oil shortening up to 10% on baking performance of white breads in terms of volume, oven spring, weight, density, color, crumb texture and shelf life using strong and weak flour was investigated. Shortening improved the volume and oven spring of bread at an optimum level of 4% for both strong and weak flour. The strong flour illustrated the effects of shortening more significantly than the weak flour as it produced loaves with higher volumes, oven spring and weight. Bread density decreased to its lowest at 4% of shortening before increasing but porosity decreased linearly with shortening level. These findings suggest that shortening has the optimum capability of reducing bread density at 4% and further addition resulted in dense and coarse bread. Addition of shortening also gave signs of whiter breads and mold reduction effect, although there is no particular trend with its usage levels.

Keyword: Palm oil; Reduction effects; Shelf life; Usage level; Shortening; Baking.