This study was conducted to find out the contents of crude fibre and crude protein of peanut shell which was fermented using fermentor. Completely randomized method was used for design study with four treatments and five replications. Four treatment groups were, P0 was 200 grams of peanut shell added with 2% molases, 0% fermentor; P1 was 200 grams of peanut shell added with 2% molases, 2% fermentor; P2 was 200 grams of peanut shell added with 2% molases, 4% fermentor; P3 was 200 grams of peanut shell added with 2% molases, 6% fermentor. Analysis towards crude fibre and crude protein was done after the peanut shell was fermented for seven days. The data were analyzed with Analysis of Variance followed by Duncan’s Multiple Range Test. The result showed that the addition of 4% fermentor decreased crude fibre of peanut shell from 74.9140% (P0) to 68.4020 (P2) and there was no increased crude protein of peanut shell.

*Key words*: peanut shell, fermented, fermentor.