

PROTEIN PROFILES OF GOAT, BUFFALO AND COW MEATS WERE SOAKED WITH GINGER SOLUTION BY USING SDS-PAGE METHOD

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ABSTRACT

Meat is one of the food materials which has a high nutrition that is protein and contains a complete and balanced amino acid structure. Ginger contains a *zingibain* enzyme (protease enzyme that can hydrolyze proteins), therefore it can be used to tenderize meat. This study aims at analyzing protein profiles in goat, buffalo and cow meats, before and after they are soaked with ginger solution. The meat protein profiles were analyzed by using the SDS-PAGE method. The results showed that in control meat, which is goat, buffalo and cow meats that were not soaked by ginger solution, there are many major protein bands instead of minor. While the goat, buffalo and cow meats that were soaked in ginger solution found much more minor protein bands. These results show that an immersion with the *zingibain* enzyme in ginger solution can break peptide bonds in meat proteins, so that the proteins form micro molecules (minor bands) that can tenderize meat. The concentration of ginger solution is best at 4% concentration because there are still many proteins remain in the meats. The higher the concentration of ginger solution, the more minor bands are formed and the more protein will decrease.

Keyword : Meat, Ginger, Protein Profiles, SDS-PAGE