



Applied Histological and Chemical Analysis for Detection of Adulteration of Minced Meat and Sausage

Doaa M. Mokhtar, Doaa M. Abd-Elaziz, Hussein Youssef, and Amr Taha

Abstract:

Meat and meat products were undergone to adulteration due to its high price and cause many diseases and economic losses for consumers. Fifty samples of minced meat and sausage (25 each) were collected randomly from supermarkets in Assiut city. The samples were subjected to histological and chemical analysis for detection of adulteration. Histologically, adulteration was detected in minced meat and sausage by addition of smooth muscle fibers of hollow organs, heart muscles, spongy bone, thyroid glands, adipose tissue, lung, blood vessels, intestine, proventriculus, ruminant stomach, tendons, cartilage, fascia, nerve trunk, brain, plant tissues include poppy seeds, color additives, cysts and parts of parasites. By ATPase histochemistry, fetal tissue in minced meat and sausage were suspected to add with abundant dark (slow-contracted) muscle fiber than light (fastcontracting) ones. Adulteration of minced meat and sausage with bone tissues was a statistically significant difference (p

Keywords:

Animal Tissue, ATPase, Acridine Orange, Plants, Analysis.

Published In:

Journal of Advanced Microscopy Research , 13 , 1-9