The present investigation aimed at studying fungal and aflatoxins contamination in fresh meat,frozen meat, meat & bone meal and fish meal, the ability of isolated Aspergillusflavus for production of alfatoxins on yeast extract sucrose (YES) and the ability of Aspergillusparasiticus for production of aflatoxins in meat stored at different temperatures (-18°c, 7°c and 18°c) for different times (one week,two weeks and three weeks) by using different concentrations of mould spores (1 ml, 2 ml, 3m1). Out of 100 samples of meat and meat by-products (25 fresh meat, 25 frozen meat 38 meat & bone meal and 12 fish meal samples) 8 genera of mould and 5 genera of yeast were isolated. Genus Aspergillus was the most predominant one, followed by genus pencillium. Among the identified Asperilli, Aspergillusniger was the predominant one, followed by Aspergillusflavus. The 5 genera of yeast isolated were Candida, Torulopsis, Rhodotorula Saccharomyces and Trichosporon species. The isolated strains of Aspergillusflavus were screened for their ability to produce aflatoxins by using yeast extract Scurose (YES) media. It revealed that all strains of the examined Aspergillusflavus produced aflatoxins. Also thin layer chromatographic anlysis (TLC) of the extracts of the representive samples was done for measuring their aflatoxin contamination. It is revealed that samples of fresh meat and frozen meat did not contain afllatoxins. As for the by-products samples, 88 28.9% of the meat & bone meal samples contain aflatoxins, and 33.3 of the fish meal samples contain aflatoxins. Aspergillusparasiticus could produce aflatoxins in meat stored at 7°c and 18°c and could not produce aflatoxins at freezing temperature. Public health significance of mould growth and aflatoxins contamination as well as some recommmoendations concerning with production and sorage of meat and meat by-products were given.