DETECTION OF NATIVE AND MODIFIED SOYBEAN IN SOME MEAT PRODUCTS IN ASSIUT CITY, EGYPT

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Abstract:

High meat prices prompted the meat industries in Egypt to produce various meat brands extended with soybean proteins. Genetically modified foods are often in the news. Much of the world has experienced strong and increasing resistance to the introduction of any genetically modified foods to the market place. Agar gel immunodiffusion (AGID) and polymerase chain reaction (PCR) were used to detect soybeans in some meat products (minced meat, raw kofta, sausage and beef burger). PCR was applied due to stability of deoxyribonucleic acid (DNA) at high temperature and highly conserved structure of DNA within all tissues of an individual. Soybean was detected with AGID at 12%, 30% and 20% in raw kofta, sausage and beef burger, respectively, but not detected in minced meat. By using PCR native and modified soybeans were detected in 100% and 69%, respectively in beef burger and at lower rates in other products.

Keywords:

NATIVE - MODIFIED - SOYBEAN - MEAT - ADULTRATION

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