

11/21/78

ASSESSMENT OF ESTIMATED RISK

RESULTING FROM

AFLATOXINS IN CONSUMER PEANUT PRODUCTS

AND OTHER FOOD COMMODITIES

BUREAU OF FOODS

FOOD AND DRUG ADMINISTRATION

January 19, 1978

BFG17208

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SUMMARY

Although direct proof that aflatoxins (B₁, B₂, G₁, G₂) induce cancer in humans does not exist, laboratory tests have demonstrated that they are animal carcinogens. Further, epidemiology studies in Thailand and parts of Africa show a significant relationship between liver cancer incidence and estimated levels of aflatoxin intake.

Aflatoxins cannot be completely eliminated from food products without eliminating the products themselves. FDA has been enforcing a limit of 20 parts per billion (ppb) for aflatoxins in certain foods and is considering reducing that limit to 15 ppb for peanuts and peanut products (39 FR 42748).

Unfortunately, the direct risks, if any, to humans from ingestion of aflatoxins cannot be measured. Therefore, risk assessments must rely on mathematical treatment of animal toxicology and epidemiology studies. Such risk assessments have been made by FDA and are described herein.

Aflatoxins can occur in a variety of grains and nuts and can also occur in the meat, milk, and eggs of food animals that have consumed aflatoxin-containing feeds. Corn products and peanut products only have been considered in the risk calculations since inclusion of other products, because of contamination levels and/or frequency of contamination or consumption does not significantly affect the numerical results. Emphasis has been placed on corn products in the Southeastern United States because both consumption and aflatoxin contamination levels are relatively high in that region.

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