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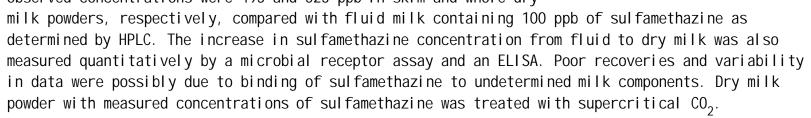
Extraction and Detection of Sulfamethazine in Spray-Dried Milk

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Processes that reduce moisture content of fluid milk may result in a high concentration of animal drug residues that are undetectable in the fluid milk on the basis of the same weights. The objectives were to determine the amount of sulfamethazine in spray-dried milk powder manufactured from fluid milk contaminated with sulfamethazine and to determine the effectiveness of supercritical fluid extraction as a means to extract sulfamethazine from dry milk powder. Fluid whole (3.25% fat) and skim milks with sulfamethazine added at concentrations of 5, 10, and 100 ppb were spray-dried. Based on total solids, observed concentrations were 493 and 523 ppb in skim and whole dry



Sulfamethazine was not detectable in the extracted dry milk powder by microbial receptor assay or ELISA.

Key Words: drug residues • milk powder • sulfamethazine • supercritical fluid extraction

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