

Title Sulfamethazin residues in pork with difference withdrawal periods and pig tissues in Chiang Mai market

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Abstract

Sulfamethazine is antimicrobial activity hat used world wide in swine industry. In Thailand, sulfamethazine was prohibited in feed formulation, but some small swine holder often mixed in the feed, which would not withdrawn or shortened withdrawn. Thai's Food and Drug Administration accepted maximum residue level was 100 ppb. Surveying on September, 2002 of sulfamethazine residues in Muang Chiang Mai mardet found that sulfamehazine concentration in kidneys, livers and loins came over maximum residue level 88.89%, 100% and 44.44%, respectively. Hypermarket in Chiang Mai found that concentration of sulfamethazine in kidneys, livers and loins were over maximum resides level 40%, 100% and 50%, respectively. In district around Muang Chiang Mai found that kidneys and livers came over the maximum residue level, but loins were acceptable. For this study, twenty-four 60 kg pigs divided into 3 groups of sulfamethazine supplement 0, 250 and 500 ppm on corn-soybean basal diet. About 80 kg of each groups were withdrawn as well as weekly different periods within 4 week, slaughtered and collected sera and loins. The results found that serum concentrations of sulfamethazine supplementary 500 ppm were 76.19% and 66.29% significantly greater than 250 and 0 ppm, respectively at 0th week of withdrawal period. The others were not significant difference in treatments and withdrawal periods. The sulfamethazine residue in loins found that 500 ppm sulfamethazine supplementary pigs were 33.50% and 67.50% significantly greater than 250 and 0 ppm, respectively ($P < .05$) at 1st week of withdrawn period, the other periods were not significant difference. Productive performance was not significant difference. The biochemical criteria such as alkaline phosphatase, blood urea nitrogen and creatinine were not significant difference. It was concluded that sulfamethazine in finishing pig diet fed 14-day period before slaughtering that were not altered productive performance and biochemical criteria. 14-Day withdrawal period may acceptable clearance of sulfamethazine residue in flesh.