Trop. J. Anim. Sci. 2002 Vol. 5. No. 2: 47 - 51

RESIDUES OF TETRACYCLINE ANTIBIOTIC IN MARKETED GOATS AND PIGS IN LAGOS AND OGUN STATES NIGERIA

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Abstract

Antibiotics used in food animals can occur as residues in their products and constitute health risks to the consumers. 360 fresh meat samples comprising of liver, kidney and muscle tissues of goats and pigs collected from open markets in Ogun and Lagos States were analyzed for residues of tetracycline antibiotics. Microbiological assay method was adopted, and Bacillus subtilis (ATCC 6633) organism used to detect residues of tetracycline on Antibiotic medium 2 agar. The study revealed that 15.6% - of the meat samples from the two states were positive for residues of tetracycline antibiotic. The concentration of the residues ranged from 0.01µg/g to O.06µg/g. The mean residue concentration recorded in goat meat samples is not significantly (P>0.05) higher than that recorded in the pig samples. The mean residue concentrations recorded between the states and across the organs were however significantly (P<O.05) different. Some of the muscle samples recorded tetracycline residue concentrations higher than the recommended tolerance levels. The health hazard associated with such high residue levels in meat is drug resistance; consumers of such meats may develop resistance to tetracycline antibiotic when the need arises.

Keywords: Tetracycline, residue, commercial, goal, pig