

# 2<sup>nd</sup> International Conference on **Animal & Dairy Sciences**

September 15-17, 2014 Hyderabad International Convention Centre, India

## **Toxicokinetics of Amitraz (0.25 %) following single dermal application in Malabari goats**

Sathish N, Juliet S, Darsana U, Sreelekha K P, Mathew J, Nair S N, Suja Rani S, Sujith S and Ravindran R  
Kerala Veterinary and Animal Sciences University, India

The toxicokinetics of amitraz at 0.25 per cent was investigated in goats after single dermal application. Blood samples were collected at predetermined time intervals up to 168 h post dermal application. Analysis of amitraz was done by High Performance Liquid Chromatography. Amitraz was detected in blood from 0.5 h attaining a peak concentration of  $7.24 \pm 0.79$  at 6 h followed by a decline and persisted till 168 h. The various kinetic parameters were calculated using a two compartment open model. The absorption rate constant ( $t_{1/2K_a}$ ), apparent volume of distribution (Vd), elimination half-life ( $t_{1/2\beta}$ ), ratio of  $k_{12}$  and  $k_{21}$ , tissue plasma ratio and mean residence time (MRT) were 1.19 h, 33.29mg/ L, 172.59 h, 0.63, 0.71 and 240.10 h respectively. Amitraz was rapidly absorbed from the site of application, widely distributed and slowly eliminated from the body. The lower tissue blood ratio suggested its minimum affinity for accumulation in tissue.

### **Biography**

Sathish N has completed his BVSc & AH at the age of 24 years from Karnataka Veterinary, Animal and Fisheries Sciences University, Bidar. Now he is a second year MVSc Scholar in the Department of Veterinary Pharmacology and Toxicology, Kerala Veterinary and Animal Sciences University, India.

[drsathish642@gmail.com](mailto:drsathish642@gmail.com)