



# WAAVP

27<sup>th</sup> Conference of the World Association for  
the Advancement of Veterinary Parasitology

**JULY 7 - 11, 2019 | MADISON, WI, USA**

Dedicated to the legacy of Professor Arlie C. Todd

*Sifting and Winnowing the Evidence in Veterinary Parasitology*



f @WAAVP2019     @WAAVP\_2019

# Abstract Book

*Joint meeting with the 64<sup>th</sup> American Association of Veterinary Parasitologists  
Annual Meeting & the 63<sup>rd</sup> Annual Livestock Insect Workers Conference*

[www.WAAVP2019.com](http://www.WAAVP2019.com)    **#WAAVP2019**

increased progressively to a maximum concentration (C<sub>max</sub>) of  $0.89 \pm 0.2 \mu\text{g/ml}$  at 0.27 h (group A) and  $0.77 \pm 0.3 \mu\text{g/ml}$  at 0.2 h (group B). LVM milk residual concentrations were lower than measured in plasma.

**Conclusion:** The pharmacokinetic results reported here confirm that LVM is excreted by milk in lactating dairy goats. The residual concentrations in milk ( $0.05 \mu\text{g/ml}$ ) detected up to 12 h, should be considered before issuing any recommendation on the manufacturing of milk from dairy goats under antiparasitic treatment with LVM.

### PS01.83 Uptake of Ivermectin from Growing Substrate to Plant Species

Lucía Iglesias<sup>1</sup>, Juan Sallovitz<sup>2</sup>, Carlos Saumell<sup>1</sup>, Silvina Fernandez<sup>1</sup>, Milagros Junco<sup>1</sup>, Federica Sagues<sup>1</sup>, Zegbi<sup>1</sup>, **Adrián Lifschitz**<sup>2</sup>

<sup>1</sup>Área de Parasitología y Enfermedades Parasitarias, Centro de Investigación Veterinaria de Tandil (CIVETAN) (UNCPBA-CICPBA-CONICET), Facultad de Ciencias Veterinarias, UNCPBA, Tandil, Argentina,

<sup>2</sup>Laboratorio de Farmacología, Centro de Investigación Veterinaria de Tandil (CIVETAN) (UNCPBA-CICPBA-CONICET), Facultad de Ciencias Veterinarias, UNCPBA, Tandil, Argentina

Ivermectin (IVM) is a worldwide-used antiparasitic drug. However, its high level of faecal elimination together with its transfer from dung pats to the underlying soil as well as the common practice of using manure for soil amendment represents a potential risk to plants growing in these substrates. Two trials were conducted to evaluate the uptake of IVM to: 1) a crop of ryegrass (*Lolium multiflorum*) and clover (*Trifolium repens*) growing for 120 days post treatment (dpt) in IVM-spiked soil at 3000 (High group, HG) and 90ng/g (Low group, LG); and 2) a crop of radish (*Raphanus sativus*) and lettuce (*Lactuca sativa*) growing for 60 dpt in a mix of soil and 10% IVM-spiked manure at 3000ng/g. Soil, soil-manure mix and plants were sampled starting at 15 dpt and at the end of each trial. All matrices were analyzed by HPLC to quantify IVM concentration. Trial 1: In HG, IVM concentration in soil decreased

from 2154 ng/g to 225 ng/g; mean IVM concentration in ryegrass ranged between 378.65ng/g and 21,74ng/g. Strikingly, clover development was delayed until 30 dpt and IVM concentration in this specie ranged between 94,09 ng/g and 4,56ng/g. Significant differences were detected between species ( $p=0,0374$ ). In the LG, IVM concentration was between 22,26ng/g and 1,02ng/g in ryegrass, and between 10ng/g and 1,02ng/g in clover, without statistically significant differences between species ( $p=0,8301$ ). Trial 2: IVM was detected in both plant species at significant levels ( $p>0,05$ ) in all the sampling times; mean IVM concentration was between 10ng/g and 5ng/g in radish, and 17,70ng/g and 6,55ng/g in lettuce. IVM concentration in the substrate decreased from 1311ng/g to 116ng/g. In conclusion, IVM concentrations in soil or composted substrate are transferred to plants during growth period, and could be incorporated into the food chain of both livestock and humans.

### PS01.84 The Efficacy of a Proprietary Formulation of Imidacloprid 10% + Moxidectin 1% (Advantage Multi®, Advocate®) Spot-On for the Treatment Against Microfilariae of Brugia Pahangi in Naturally Infected Cats

Dr. Tawin Inpankaew<sup>1</sup>, Miss Pornkamol Phoosangwalthong<sup>1</sup>, Dr. Susanne Siebert<sup>2</sup>, **Dr. Roland Schaper**<sup>2</sup>

<sup>1</sup>Faculty of Veterinary Medicine, Kasetsart University, Bangkok, Thailand, <sup>2</sup>Bayer Animal Health GmbH, Leverkusen, Germany

Lymphatic filariasis (LF) is one of the most debilitating neglected tropical diseases (NTDs). It is caused by parasitic worms transmitted to humans by mosquitoes. Recent evidence has also indicated that *Brugia pahangi*, a filarial nematode that is naturally found in cats, can cause clinical infection in humans, with clinical presentations that are consistent with lymphatic filariasis. Imidacloprid 10% + Moxidectin 1% has more recently been introduced as a topical spot-on, and marketed worldwide as Advantage Multi® or Advocate® by Bayer Animal Health (Leverkusen, Germany). However, the efficacy against infections with *B. pahangi* in cats