



1st International Congress of Veterinary Pharmacology & Pharmaceutical Sciences (1st ICVPS)

October 4 - 5, 2008 Tehran - Iran

Determination of *Amitraz* residue by headspace Gas Chromatography in honey and *Beeswax* samples from Iran

Hejazy M, Salar Amoli J, Ali Esfahani T

Faculty of Veterinary Medicine, University of Tehran, Tehran, Iran (mmhejazy@yahoo.com)

Amitraz, is an acaricide used to control the infestations produced by the mite *Varroa jacobsoni* in the beehives. Usage of this acaricide can cause the presence of its residue in honey and aparian products, same as beeswax. In the last few years, Amitraz was used more frequently in Iran. With regard to increasingly public concern about health risk from pesticide residues in the diet, the analysis of amitraz residues in honey and beeswax has received special attention. Amitraz is a very labile pesticide whose degradation products contain the 2,4-dimethylaniline moiety. The method has been validated for the analysis of amitraz and DMA (one of the most abundant amitraz degradation compound) in honey is static headspace solvent microextraction Gas chromatography with Thermionic Specific Detector (GC/TSD). In this study, 70 samples honey and beeswax from different beehives (Eastern and Western Azarbayjan, Ardabil territory, Iran), markets and store shelves of (Tehran, Iran) were collected during (2006-2007) and analysis for detection of amitraz and DMA residues. It could be concluded that according to EU standard (MRL = 200µg/kg) all the samples of honey could be declared as appropriate for human consumption.

Keywords: Honey; beeswax, Amitraz; 2, 4-dimethylaniline; *Varroa jacobsoni*; Headspace-GC-NPD

Effect of grilling process on antibiotic residues in edible tissues of poultry by FPT method

Javadi A, Khatibi SA

Faculty of Veterinary Medicine, Islamic Azad University, Tabriz, Iran (amin_khatibi63@yahoo.com)

Regarding to vast application of the antibiotic drugs in animals quality control of food stuff, from point view of not containing antibiotic residues, is necessary.

Existing of antibiotic residues in food stuff, especially meat, and their transference to the body of consumer, is the cause of effects like bacterial resistance, allergic reactions, toxicity, carcinogenic effects and disturbing of natural micro flora of intestine. This paper presents the net change by grilling on residues of antibiotics in edible tissues of poultry. Four-plate test is one of the microbiologic methods for detecting antibiotic residues in food stuff, which is at the base of inhibition zone formation around the sample in four culture media with different pH and test bacteria. For this purpose, 40 carcasses were collected on each of eight visits from Tabriz poultry slaughtering houses. Four locations were sampled aseptically from each carcass: breast muscle; skin; liver and gizzard. After doing different phases of four-plate test on raw samples, from total 40 muscle samples, 25 cases (62/5%); from total 40 liver samples, 40 cases (100%); from total 40 skin samples, 21 cases (52/5%) and from total 40 gizzard samples, 15 cases (37/5%) are diagnosed to be polluted to antibiotic residues. Then positive samples incubated in 200 °C. incubation time regarding to usual cooking time were as follows: muscle 40 min; skin 15min; liver 25 min; gizzard 60 min then we perused samples by FPT method again for present of antibiotic residue and non of the positive raw samples have any residue of antibiotics after grilling ($P < 0.05$). Therefore enough cooking temperature & time can have a great effect on antibiotics residues in food.

Keywords: grilling; antibiotic residue; poultry; FPT