

Research program IZS VE 06/13

Analysis of veterinary drug residues by multiclass-multiresidues approach: a new tool for the future food safety control? Development and standardization of analytical methods to discover benefits and drawbacks

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Despite the traditional analytical approach followed for veterinary drugs, based on “one sample one test”, an emerging trend in residue analysis is the development of methods that are capable of monitoring in a single sample, a wide variety of compounds, representing different chemical classes. This new approach could represent both an evolution in official monitoring plans for residue detection, especially in consideration of the forthcoming 96/23 decision revision, and in support to producers to better investigate critical points of specific production chain. For example, the presence of contaminated beehive matrices in the market, can lead to residues problem in apiculture products. A wide range of screening for antibiotics could represent a good chance to investigate and solve the problem.

The goal of this project is to develop, validate and employ a multiclass method for residue analysis based on Biochip Array Technology (BAT) focused on anthelmintics determination in livestock’s liver and antibiotics determination in beeswax and propolis, and to evaluate the potentiality of this technique as alternative of liquid chromatography/mass spectrometry systems in terms of applicability, maintenance and productiveness.