

**ACTIVITIES OF THE FOOD AND ENVIRONMENTAL PROTECTION SECTION OF THE
JOINT FAO/IAEA DIVISION OF NUCLEAR TECHNIQUES IN FOOD AND
AGRICULTURE RELATED TO THE WORK OF THE CODEX COMMITTEE ON
RESIDUES OF VETERINARY DRUGS IN FOODS**

Quality Control of Trypanocidal Drugs

African trypanosomiasis is a severe disease which is fatal if left untreated. The conventional and most prominent method to combat trypanosomiasis is by chemotherapy. Every year some 35 million doses of trypanocides are administered to domestic ruminants. Several reports indicate the widespread phenomenon of counterfeit and poor quality drugs of isometamidium based trypanocides in sub-Saharan Africa. This has severe implications for both food safety and animal health, posing problems with residues of unspecified, unwanted chemicals and their metabolites in the food chain and the induction of trypanosome resistance, an already widespread phenomenon.

In 2003, the Animal Health Service of the FAO and the International Federation for Animal Health (IFAH) developed a joint concept note on quality assurance/quality control (QA/QC) of trypanocides. The main objective is to pursue internationally and scientifically agreed standards and protocols for QA/QC of trypanocides. The specific objectives include definition of the requirements of analytical quality assurance, establishment of good laboratory practices for chemical analysis, and transfer of the methodologies and technology to laboratories in Africa. Initially, it is proposed to support two regional reference laboratories, one in west Africa and one in the east. Future extensions of this project would hopefully expand the scope to include the development and transfer of methods for QC of other veterinary pharmaceuticals such as anthelmintics, antimicrobials and acaricides/insecticides and for residues of the compounds in animal-derived foods. Discussions are ongoing with the United Nations Industrial Development Organization (UNIDO) and IFAH to secure further funding for the project.

The Agrochemicals Unit of the FAO/IAEA laboratories at Seibersdorf, Austria, and the Department of Pharmaceutical Sciences, Strathclyde Institute for Biomedical Sciences, UK, were selected as partners for the technical aspects of the project. Laboratory work to support this project commenced in 2005. The first technical activity, the validation in Strathclyde and Seibersdorf of an HPLC method for quality control of isometamidium-based trypanocides, has been completed.

Further information on the project can be obtained from the FAO Officer (Raffaele.Mattioli@fao.org) and technical details can be obtained from the FAO/IAEA Agrochemicals Unit (A.Cannavan@iaea.org).

Analytical Methods

Feedback to the Joint Division from developing country institutes involved in residues analysis has indicated that it is often problematic for them to gain access to analytical methods, especially in the form of protocols for validated methods. To help address this problem, the Food and Environmental Protection Subprogramme has collaborated with the Codex Committee on Pesticide Residues in publishing Codex endorsed analytical methods and other methods made available by National Authorities on its web pages. To date, pesticide residue methods have been made available by Canada, Germany, USA, and The Netherlands and can be accessed at [http://www-infocris.iaea.org/EN/w3.exe\\$PassCheckStart?ID=E135](http://www-infocris.iaea.org/EN/w3.exe$PassCheckStart?ID=E135).

The Joint Division wishes to extend the offer to the CCRVDF so as to include analytical methods for veterinary drug residues on the Division web pages. To this end, we would welcome the submission of methods, preferably full protocols of validated methods, but also abstracts or links to method protocols, which could be made available to enhance the capabilities of developing countries to identify and implement suitable methods in support of residue monitoring plans.

Training Course on Screening and Confirmatory Methods for Veterinary Drug Residues

A recommendation of the Joint FAO/WHO Technical Workshop on Residues of Veterinary Drugs without ADI/MRL, Bangkok, Thailand, 24-26 August 2004, was that:

“Some developing countries require specific advice and technical assistance on:

The theory and practice concerning the application of appropriate analytical methods. This may be directed towards screening technologies and/or towards more sophisticated confirmatory technologies, as dictated by the needs of the individual country. This should be addressed by the Joint FAO/IAEA Division at IAEA.”

To act upon this recommendation and follow up on three regional training courses and regional and inter-regional workshops held during 2003-2004 under the project “Strengthening Capacities for Implementing Codex Standards, Guidelines and the Recommended International Codes of Practice for Control of the Use of Veterinary Drugs”, IAEA plans to hold an inter-regional training course on screening and confirmatory methods for veterinary drug residues in 2007. Details of the course will be published, when available, on the Food and Environmental Protection Subprogramme web pages (<http://www-naweb.iaea.org/nafa/fep/index.html>).