

## **PESTICIDE CONTAMINATION IN FARMED FISH - EXPOSURE PATHWAYS, BIOACCUMULATION AND CONSUMER RISK**

CHRISTIAN SCHLECHTRIEM

*Department 'Bioaccumulation & Fish Metabolism, Fraunhofer- Institute for Molecular Biology and Applied Ecology IME, Schmallenberg, Germany*

### **ZAGAĐENJE PESTICIDIMA GAJENIH RIBA – PUTEVI IZLOŽENOSTI, BIOAKUMULACIJA I RIZIK ZA POTROŠAČE**

#### *Apstrakt*

U današnje vreme, globalno, proizvodnja u akvakulturi pokriva oko 50 % konzumirane ribe. Sa porastom obima proizvodnje u akvakulturi i porastom korišćenja biljnih sirovina u proizvodnji hrane za ribe, postoji potencijalni rizik od ostataka pesticida u jestivim proizvodima od ribe. Međutim podaci o monitoringu ostataka pesticida u komercijalnoj hrani za ribe uglavnom nedostaju, a potencijal prenosa ostataka pesticida sa useva na jestiva tkiva riba bi trebalo da bude bolje osvatljen.

Predstavljen je simpleks pristup za procenu maksimalnog opterećenja pesticidima u hrani za ribe. Dat je pregled aktuelnih istraživanja o obimu i tipu rezidua koji se mogu pojaviti u jestivim proizvodima od riba izloženim pesticidima.

#### *Abstract*

Today, aquaculture production provides roughly 50% of the worldwide consumed fish. Due to the increase in fish farming and the increase in use of plant commodities as a source of feed, there is a potential risk for pesticide residues in edible products in fish. However, monitoring data on pesticide residues in commercial aquaculture diets are mostly missing and the potential for transfer of pesticide residues from crops into edible tissues in fish needs to be further elucidated. A simplex approach for the estimation of the maximum burden of pesticides in compound feeds for fish is presented. An overview of current research activities on the extent and nature of residues that may occur in edible commodities of fish exposed to pesticides is provided.