

Mancozeb is a broad spectrum contact fungicide with a protective action which belongs to the dithiocarbamates family of chemicals. The official statistics on the use of plant protection products in the European Union indicate that, mancozeb is in the second row of the top ten fungicide active ingredients list. This active ingredient is a source of ethylenethiourea which is also a suspected carcinogen. Therefore, there is an increasing need to develop methods to reduce mancozeb residue in widely consumed food product to acceptable levels. Today, the use of dipping solutions has shown potential as an effective postharvest treatment in the reducing pesticides residue. In this research, the effects of chlorine and hydrogen peroxide on the reduction of mancozeb residues on/in tomato samples were studied. Two different concentrations (10 and 100 ppm) of each chemical were tested for the predetermined reaction time (0, 5, 15, and 20 min). After the reaction time, the tomatoes were removed and immediately analysed for the determination of remaining mancozeb residues by using a GC/MS system. The results showed that the waiting for 20 min in 100 ppm Chlorine dipping solutions was the most effective in removing mancozeb residues, with an average of 70,8% of the residues being eliminated from the samples, followed by hydrogen peroxide solutions with an average of 64,7% at the same time and concentration. Water was least effective application for the reduction of mancozeb residue. These experiments indicated the potential for the removal of pesticide residues on tomato samples.

#### P80 Determination Of Organochlorine Pesticides In Sea Turtle Liver Using A Multiresidue Method and GC- $\mu$ ecd

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Sea turtles are included in the IUCN Red List of Threatened Species, this threats include catch by fisheries, habitat degradation in the feeding and nesting areas and diseases. Some impacts are related to the negative effects of pollutants, like the organochlorines compounds. A new method for the analysis of organochlorine pesticides ( $\alpha$ -BHC,  $\beta$ -BHC, heptachlor, dicofol, OP' DDD,  $\alpha$ -endosulfan, OP'DDE, PP'DDE,  $\beta$ -endosulfan, PP'DDD, endosulfan sulfate, myrex and dieldrin) residues in sea turtle liver samples was developed. It involved extraction of 1 g of liver with acetonitrile saturated n-hexane (18%), shaken 1 min; centrifuged at 3000 g for 15 min at 5°C twice; the organic phase was frozen for 15 min at -15°C and transferred to 50 mL tube containing 1200 mg of MgSO<sub>4</sub> and 400 mg of PSA, mixed 1 min, centrifuged at 4800 g for 15 min at 15°C collected 4 mL, evaporated with nitrogen and resuspended in 1 mL of n-hexane, transferred to a column of silica gel for a second clean up, collected and evaporated with nitrogen, resuspended in 1 mL of toluene and injected into the GC- $\mu$ ECD system. The extraction method was adequate and the validation process is currently being worked. The monitoring of these compounds can provide information about the possible relation of these residues with adverse effects in sea turtle health such as the fibropapillomatosis in *Chelonia mydas*.

#### P81 Monitoring Of Organochlorine Pesticides In Green Sea Turtle Fat Using A Multiresidue Approach Method and GC- $\mu$ ecd

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#### P82 Polybrominated Diphenyl Ethers (PBDEs) in Surface Sediments of Hillsborough Bay, FL

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Polybrominated diphenyl ethers (PBDEs) are a widely used class of flame retardants that are important sources for contamination in the marine environment. Sediments serve as a sink for PBDEs due to their large sorption capacity, and concentrations of PBDEs in