



**Development of HPLC Photodiode Array Detection (HPLC-PDA) method for Determining of Oxytetracycline, Tetracycline and Chlortetracycline in chicken meat**

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**Objective:**

Drug residues are frequently detected in food products, because veterinary drugs are used for the prophylaxis, treatment and growth promoting of poultry. The aim of this study was to develop and optimize a specific, rapid and simple multiresidue method for determining oxytetracycline, tetracycline and chlortetracycline residue in poultry meat use a gradient high performance liquid chromatography with photodiode-array detection (HPLC-PDA).

**Method & Materials:**

Poultry meat, kidney and liver samples were extracted and purified using a C18 solid-phase extraction cartridge and analyzed using HPLC-PDA set at 350-380 nm. The analyses were carried out using the mobile phase of methanol-oxalic acid-acetonitrile (5:80:15, v/v/v) on a C18 column (250\*4.6 mm I.D., 5 µm).

**Results & Conclusion:**

Recoveries of tetracyclines from spiked samples at the three concentrations (0.1, 0.5 and 1) were 80-81% in the meat. The detection limit (LOD) at 3\*baseline noise for tetracycline and oxytetracycline was 1.5 ng and 3 ng in the meat, respectively. The present study has proved that tetracycline residues in meat and poultry can be detected using HPLC methods.

**Keywords:** Tetracyclines, poultry meat, HPLC-PDA determination, drug residue

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**Microbiological changes in mullet (*Liza saliens*) salted and treated with potassium sorbate during processing and storage**

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**Objective:**

In this study, microbiological changes during processing and storage of salted-cured mullet *Liza saliens* fillets treated with potassium sorbate were investigated.

**Method & Materials:**

For this purpose, 5, 10, 15 and 20 (w/w) NaCl and 0, 1, 5 and 10% (w/v) potassium sorbate were applied to the fillets. The processed fillets were vacuume-packed and stored at 4° C. The samples were analyzed during production and in the storage days of 7, 14, 28, 42, 56, 70 and 84 for total number mesophilic aerob, psychrophilic and mould.

**Results & Conclusion:**

In conclusion, the microbiological quality of all samples treated with 10 NaCl and potassium sorbate were found better. The control became mouldy after 28 days. No mould was observed on samples treated with potassium sorbate during processing. Samples treated with 5 and 10 % (w/v) potassium sorbate had the lowest microbial loads. Consequently, it can be concluded that the usage of potassium sorbate may be useful and a synergistic effect between salt and potassium sorbate was found.

**Keywords:** *Liza saliens*, salting, potassium sorbate, storage.

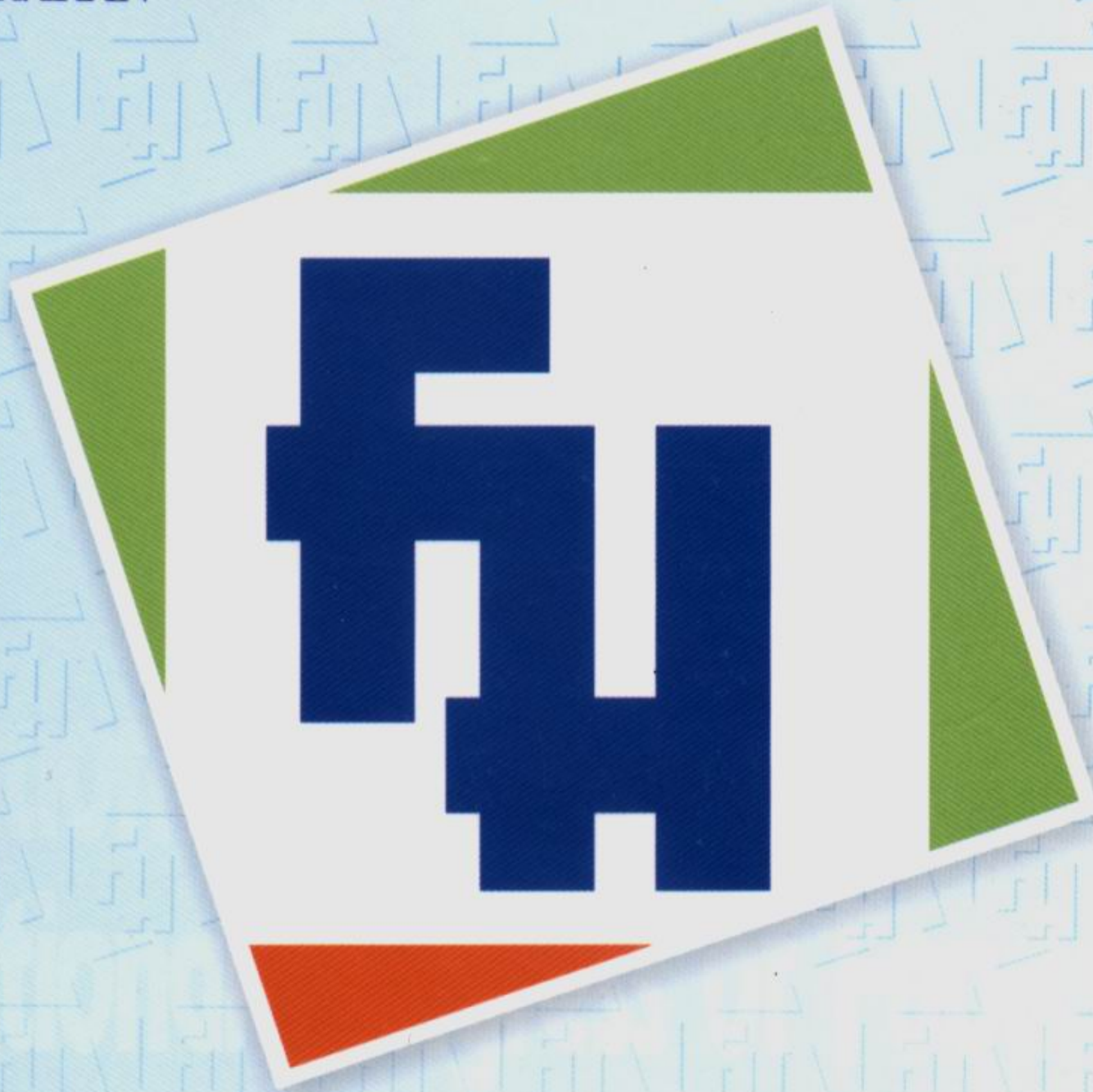
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