

**DEVELOPMENT AND IMPLEMENTATION OF A DETOXIFICATION PROCEDURE TO REDUCE PSP TOXINS IN MUSSELS****OP40****FULL NAME:** Ana G. Cabado**JOB TITLE:** Head of Food Safety Division**COUNTRY:** Spain**ORGANIZATION:** ANFACO-CECOPESCA**ABSTRACT**

An episode of paralytic shellfish poisoning (PSP) leads to closure of shellfish production areas. Producers, depuration centres, transformation industries and many others are affected, causing an important economic impact. In this context, seafood industries are very interested in finding a solution that will allow them to continue their activities whilst ensuring that consumer health is protected.

Currently, an official procedure is being implemented, since approval, to reduce PSP toxins in *Acanthocardia tuberculata* (Decision 96/77/EC). This protocol is industrially applied in the South of Spain, with high effectiveness, but it is specifically allowed for this bivalve produced in this specific area.

In this study, we developed an industrial protocol for PSP mussel detoxification, based on Decision 96/77/EC with some modifications. An HPLC-AOAC 2005.06 method for PSP quantitation was developed and validated for raw, frozen and thermally treated mussels.

The modified detoxification procedure was applied to 6 different batches of PSP-contaminated mussels obtained from closed harvesting areas. An average of 85 % detoxification was recorded in all cases, reaching the expected safe level. However, in a particular case, when the PSP concentration in the original sample was around 7000 µg STX Equiv/Kg, although an important decrease of toxins was achieved, levels did not decrease sufficiently, i.e. below the European legal limit (800 µg STX Equiv/Kg). For this reason, a PSP safety threshold in the raw product must be defined.

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