

DEPURATION OF OYSTERS (*CRASSOSTREA* spp.)
USING ULTRA-VIOLET RADIATION

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ABSTRACT

The depuration of oysters (*Crassostrea belcheri* and *Crassostrea iredalei*) was studied using a recirculation system (3 exchanges / hour) with filtered sea water, sterilised by ultra-violet radiation. The flow rate of the system was 100 litres / min for a 2 m set-up. Oysters were stocked in shallow trays with 50 oysters/tray or approximately 45 kg / set-up. The trays were designed to facilitate water circulation. The percentage reduction of coliform bacteria in the oyster meat was 98.6% and 99.9% after 24 and 48 hours respectively. The percentage reduction of faecal coliform bacteria was 99.9% after 24 and 48 hours. Independent of the initial bacterial concentration, a 24-hour depuration period was sufficient to reduce oyster meat bacterial concentration to APHA standards (less than 230 MPN / 100 g meat of faecal coliforms). The meat quality of *C. belcheri* was not effected after depuration whereas the meat of *C. iredalei* became soft and watery since no feeding was provided during the depuration process.