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Subject: Levels of inorganic arsenic in shellfish

The Aquaculture Advisory Council (AAC)'s Working Group on Shellfish is currently discussing the matter of the levels of inorganic arsenic (iAs), following the consultation launched in 2022. In a meeting of the AAC member AIPCE CEP¹ on November 8th in 2022 with DG Sante – Unit 2 – Food processing and novel foods, it was agreed that additional data for the assessment on iAs Maximum Limits for fish productions could be sent to the EC. AICEP CEP has send the first batch of data in Q1 2023.

The first results of shellfish sampling in some production waters cause great concern. This is why the AAC Working Group members wish to carry out more samplings in different waters, and different EU countries. To do so, some additional time would be needed because of the levels of chemical pollutants' concentration in shellfish vary significantly from season to season, depending on their physiological and reproductive cycle.

In the case of inorganic compounds, this results in a "biological dilution" at the time of sexual maturity leading to a reduction in metal concentration (the quantity of contaminants is unchanged but the mass of the animal increases: maturation of the gonads). This phenomenon has been observed in mussels for cadmium, copper, lead and zinc (Amiard et al., 1986). The highest concentrations are observed in winter-spring and the lowest in summer-autumn, with differential ratios of up to 1 to 4 - depending on the contaminants and on the species - (Ifremer data; Devier et al., 2005). For example, this variation for cadmium can reach a factor of 2 to 4 between winter and autumn for cadmium in oysters. Thus, the maximum concentrations of contaminants in shellfish are observed in winter and the minimum in autumn.

¹ AIPCE CEP's website: <https://www.aipce-cep.org/>

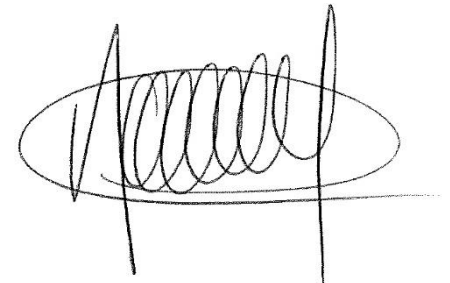


According to the official French protocol of sampling Bivalves for chemical contaminants analysis², the ideal sampling period is at the middle of February. Due to the weather variations and the spring tides periods, a tolerance of one week before and one week after may be accepted on an exceptional basis.

The AAC members representing the sector organisations commit to carry out samples in February 2024 in different EU waters and countries and to deliver the results from these samples a few months later.

The AAC Working Group on Shellfish would like to request that the European Commission takes these sample collections into consideration in view of its assessment, and ahead of any decision concerning the definition of maximum levels of iAs in Shellfish.

Yours sincerely,



Stéphane Angeri
AAC Working Group Chair

² Network ROCCH (Réseau d'Observation de la Contamination CHimique du littoral) managed by IFREMER :
<https://littoral.ifremer.fr/Reseaux-de-surveillance/Environnement/ROCCH-Reseau-d-Observation-de-la-Contamination-CHimique-du-littoral>

