

EFFECT OF STORAGE AND TRANSPORT IN TUBS ON SHELF LIFE AND QUALITY OF PLAICE (*Pleuronectes platessa*)

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In the Flemish Fish Auctions there is an increasing demand by fish processors to deliver plaice in tubs instead of in traditional boxes. The larger volume of the tubs (630 l) simplifies the logistical procedure in the processing factories. In classical fish boxes, fish is stored in ice, where the melt water is drained through holes in the boxes. In tubs, plaice is stored in chilled water with a layer of ice on top. The goal of this trial was to investigate the effect of storage and transport in tubs on the fish quality. Plaice iced and stored in traditional boxes was compared to plaice stored in tubs filled with chilled water and an ice layer on top. Water content, quality index method, chemical and various microbiological analysis were performed on fish stored up to 15 days. The temperature of the fish was logged throughout the whole experiment. During the shelf life experiment, a temperature difference within the same tub of up to 2.8 °C was recorded. The threshold level of 4°C for the fish temperature was never exceeded despite some fluctuations

of the ambient temperature. Although the fish in tubs reached slightly higher temperatures than the fish in the boxes, this had no adverse effect on the quality of the fish. The sensory and chemical analysis showed that plaice in tubs had a longer shelf life than plaice in boxes. In accordance, the microbiological parameters were also better in the tubs than in the boxes, although these differences were not significant. Transport did not affect any parameter. The plaice in tubs did have a significant higher water content in the fish meat, already after two days of storage. The overall results show that the 630 l tub is well suited for storage of plaice in chilled water. This way of chilling gave better quality of the fish after storage compared to fish stored in traditional trawl boxes.