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The effect of chromium on the leather made from Siberian sturgeon (*Acipenser baerii*) skin and scrutiny its quality

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Abstract

Caviar is the most important and the major production of sturgeons, but the benefits of these fish are not limited only to caviar. *Acipenser baerii* is one of the most common breeding sturgeon species in European aquaculture. According to the breeding this kind of sturgeon in Iran, there are attempt for using the technical knowledge and processing industries for application of the other organs including skin, digestive system, cartilage, spinal cord, etc. in the leather, food, pharmaceutical and cosmetic industries. In this study, the effect of chromium on the quality of produced leather from *Acipenser baerii*'s skin was investigated. At first, the salt to fish skin ratio 1:1 and 1:2 was carried out during 0, 5, 10, 15 and 20 days to select the best treatment in terms of the total bacterial load. According to the results, treatment with 1:2 ratio at day 5 was showed the better conditions. The samples were subjected to color fastness, rub fastness, sewing capability, tensile strength, tearing strength and thermal resistance experiments to determine the quality of produced lather. The sturgeon's skins were passed all chromium tanning process. All of the above experiments were carried out to evaluate the quality of produced leather. The results are indicated the acceptable quality in terms of physical and apparent.

Keywords: Chromium, Leather, Sturgeons's skin, Tanning