

Enzyme treatment and brining of cod liver prior to canning



The process and product development at Matis focuses on research concerning utilization of by-products which supplies increased value for the fishing industry.

Increased output and allocation

At Matis, a method was developed for pre-processing of cod liver prior to canning in cooperation with Ice-W ehf. The method is based on removing the membrane and the ringworms from the surface of the liver with enzymes. This method will increase the output and allocation in processing of canned liver substantially. Also, method was developed for brining of liver prior to canning.

Production of canned liver for export last year was in excess of 900 tons (9 million cans) and the export value was around 318 million ISK. Trimming of liver is an important factor of the production and has substantial influence on the appearance of the product. At trimming, stomach residues, gall bladder and blood veins are removed, along with the surface membrane on the liver.

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By using enzymes which break down the connective tissue, it is possible to remove ringworms and membranes of the surface of the liver and thereby decrease the production cost and increase output of the production. When the membrane has been removed or made softer, the portion in cans is more uniform. Trials at Matis have shown that 80% of the ringworms are removed during enzyme treatment. Instead of putting salt directly into the cans, brining prior to canning, indicated a more even distribution of salt and more stable quality of the product.

It is estimated that enzyme treatment of cod liver could increase the output around 30%, along with increasing automation resulted in lower production cost, increased allocation and higher profitability for the company. It is expected that the results of the project improve the profit of this industry and creates increased value of by-products for the fishing industry.

