



Large sturgeon are grown in 25 m round basins.

Aquatir Ltd farms sturgeon on the Dniester

Black caviar for the world market

Sturgeon stocks are threatened worldwide by extinction. Various factors have led to a dramatic drop in populations during the last two decades. Since aquaculture can make a considerable contribution towards saving wild sturgeon and satisfying demand for “black caviar”, Aquatir Ltd decided in 2005 to build a modern recirculation system for farming sturgeon.

Aquatir is based in Tiraspol, Moldova. Billund Aquaculture Service from Denmark, a company which has successfully built circulation systems for very different fish species throughout the world for more than 25 years, was commissioned to provide the technical facilities. The provisional date set for the final construction is 2012 by which time about 30,000 m² of covered space will be available. The system will then include the following modules: hatchery, fingerling unit, two grow-out units, three units for large sturgeon, spawning fish unit, two processing plants.

Broodstock from the Black Sea and the Caspian Sea

At present the farming facility contains the following sturgeon species of different ages: sterlet (*A. ruthenus*), bester (hybrid of *A. ruthenus* and *Huso huso*), beluga (*Huso huso*), Danube sturgeon (*A. gueldenstaedtii*).

Sterlet and bester are mainly being used to gain experience. In the long term only beluga and Danube sturgeon are to be produced. Already today there are several thousand sturgeon of

different ages of these species in the facility. They come from spawning fishes from both the Black Sea and from the Caspian Sea and the two groups are kept strictly separate.

Caviar has already been produced from both sterlet and bester. By carefully controlling production processes, using high-quality feed, and ensuring optimal farming conditions it is possible to shorten the time the fish take to reach maturity. Time savings of approximately 25% have been achieved compared to sturgeon living in the

wild. Based on this experience the company managers assume it will be possible to achieve similar time savings in the case of beluga.

A processing plant each for eastern and western markets

Aquatir Ltd holds ISO22000 and HACCP certification and is registered at CITES. The company's product portfolio includes top quality black caviar, a wide variety of sturgeon meat products, eggs and fry for export, and large sturgeon for

Table 1: Growth data during the initial years

Fish Species	2007				2008				2009				2010			
	Average weight in kg after								Max/min length in cm after							
	12 Months		24 Months		36 Months		48 Months		12 Months		24 Months		36 Months		48 Months	
Sterlet Beluga hybrid	1.2	3.5	5.8	7.6	62/52	82/70	100/92	112/104								
Sterlet	0.8	1.2	1.8	2.3	54/47	60/54	64/57	72/67								
Beluga	1.6	8.4	20.3	32.3	67/60	110/101	140/127	165/142								
Russian sturgeon	1.3	4.6	8.4		70/61	93/81	108/99									

live sales. It also intends to keep the broodstock as a genetic base, for reintroduction both to the Caspian Sea and the Black Sea.

The company has two processing plants which operate completely separately from one another. The first plant produces products for Eastern Europe – mainly for the Russian market. The second plant was specially designed to meet the requirements of target groups in Europe, the USA and Japan. The reason for the separation is above all the different legal situations. Caviar for export to Russia, for example, can be obtained without killing the sturgeon. A long established processing technique guarantees the required quality.



An impressive example of a four-year-old beluga sturgeon. The fish has to be substantially older before it produces caviar.

New spawning fish facility enables steady production of caviar

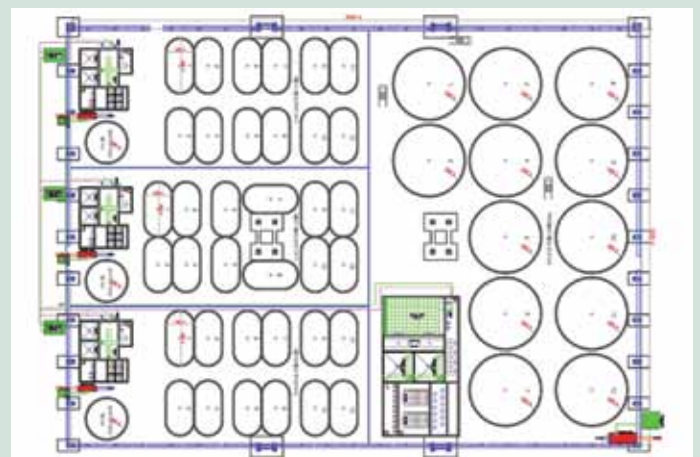
Based on experience gained by different specialists a completely new kind of spawning fish facility was developed. It enables the production and fresh delivery of very high-quality caviar at any time. This kind of facility would sooner be expected in countries like Russia, Iran or Kazakhstan, i.e. in countries that have been traditionally involved with sturgeon farming and caviar production. It is all the more satisfying that this success story was realised in Moldova thanks to the good cooperation between the partners. Already in

the autumn of 2009, 50,000 one-summer fry of Russian sturgeon with an average piece weight of about 100 grams were released in the Dniester River. This made a substantial contribution to the improvement of the ecological situation there and particularly to the strengthening of the fish stock in this river. With this first measure Aquatir Ltd. has demonstrated clearly its ecological and economic responsibility for the benefit of the region.

Further information is available from Svetlana Kasaeva at www.aquatir.md or from Dietmar Firzloff, who played a decisive

role in the development of the overall concept. His details can

be found at the website www.aquafuture.de.



The spawning fish facility is a prerequisite for optimum caviar quality.