



- **WELFARE IN GREEK AQUACULTURE AND MAKING EU LEGISLATION FIT FOR PURPOSE**

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GREEK MINISTRY OF RURAL DEVELOPMENT AND FOOD

Central Competent Authority for the implementation of legislation on animal welfare for farm animals including fish (including welfare in farms, during transport and at the time of killing)

Strategy based on actions derived from legislative texts and other guidelines (legally binding or not)

e.g. European Commission report, EFSA reports, Stakeholders' approved guidelines

Webpage: www.minagric.gr

<http://www.minagric.gr/index.php/el/for-farmer-2/animal-production/aquaculture-animals/4491-prost-ixthion>




AQUACULTURE DATA IN GREECE

2014- 2016

Data derived from DG FISHERIES – GREEK MRDF


	<i>Number of farms</i>	<i>Fish production (in tons and millions of fish)</i>	<i>Value (millions of €)</i>	<i>Number of farms</i>	<i>Fish production (in tons and millions of fish)</i>	<i>Value (millions of €)</i>	<i>Number of farms</i>	<i>Fish production (in tons and millions of fish)</i>	<i>Value (millions of €)</i>
<i>Seabass-Seabream-Other species</i>	336	95.876,00*	436,314.00	326	91.900,00*	491,610.00	326	95.000,00*	506,300.00
<i>Hatcheries for Seabass-Seabream-Other species</i>	38	399,000**	85,660.00	29	405,000**	89,556.00	29	411,000**	90,900.00
<i>Live bivalve molluscs</i>	590	18,011.00	6,706.00	585	18,510.00	6,890.00	585	19,010.00	7,050.00
<i>Shrimp culture</i>	1	0.00	0.00	1	0.00	0.00	1	0.00	0.00
TOTAL	965	113.887,00&399,300	528,680.00	941	110.410,00&405,000	588,056.00	941	114.010,00&411,000	604,250.00

FISH TRANSPORT

- Provisions of Regulation 1/2005/EC are fully implemented including the provisions of Annex I “Technical Rules” applying to fish transport (overland transport by truck and sea transport by well-boat)
- Water quality  key point



PRACTICES DURING KILLING

- General requirements for killing and related procedures of the Council Regulation 1099/2009/EC apply to fish killing
- Ice slurry  suitable for seabass and seabream
- Photographs: Courtesy of Dr Michael Pavlidis





KILLING AND RESEARCH

- Research for improved methods of seabass and seabream stunning with aim to achieve:
 - 1) Stunning of around 10 tons/ hour
 - 2) Stunning of at least 95% of fish
 - 3) Recovery of 100% of fish
 - 4) < 3% of losses and alteration of fish product
- **ATTENTION:** Specific provisions for each fish species and size
- Stunning should be followed by the use of ice slurry
 - Data derived from Greek MRDF Research projects



WELFARE IN FISH FARMS

- All guidelines for critical factors affecting welfare in fish farms are applied by the Greek industry, especially in terms of water quality, water exchange rate, water temperature, stocking density, oxygen levels, food supply etc.
- Photograph: Courtesy of Dr Michael Pavlidis





STAKEHOLDERS' PERSPECTIVES

Private industry applies codes of practice and quality schemes safeguarding fish welfare.

Regarding welfare at the time of killing, possible new methods should take into account:

- Biosafety of personnel
- Fish quantity in relation with time
- Effective handling and stunning procedures
- Cost
- Quality of product



EXPECTATIONS FROM THE EUROPEAN COMMISSION

- Species specific legislation on fish welfare in farms during transport and at the time of killing
- Cost effective solutions viable for the producers and the whole chain of production
- Care for the increased welfare for fish
- Initiatives for scientific advance especially in terms of welfare at the time of killing



● THANK YOU VERY MUCH!

Photograph: Courtesy of Dr Michael Pavlidis



Seizing the day for fish welfare, 6th June 2018,
Brussels, Belgium