

# Comparative technical and economic analysis of mussel farms in Northern Greece



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## Introduction

- Mussel farming is a dynamic and export-oriented sector, which plays an important role in the development of coastal areas of Greece, especially in the Northern part of the country.
- Mussel farmers are usually fishermen who undertake this activity for additional incomes. However, this option has evolved over time and several producers have undertaken additional investments in order to increase their size and specialize on the enterprise.
- A combination of factors - including low economic performance and diseases - has reduced the performance of the sector and jeopardises its viability.



## Objective

The main objective of this study is to give an insight into the structure and economic performance of various types of mussel farm.

## Materials and Methods

Study area: (Northern Greece)



## Results

- As size increased, productivity and product prices also increased.
- Family labour over total labour requirements decreased as the size of farms increased.

	SSF	MSF	LSF
Average acreage (ha)	0,65	1,40	2,80
Production (tn/ha)	60,0	65,0	67,9
Price (€/kg)	0,362	0,353	0,381
Labor (h/ha)	4337	1628	1717
Family (h/ha)	2731	882	834
Hired (h/ha)	1606	746	883

- There was an inverse relation between production costs per ha and farm size.

	SSF		MSF		LSF	
	€/ha	%	€/ha	%	€/ha	%
Sea acreage (Rent)	554	2%	520	2%	524	3%
Labor	14938	46%	6090	25%	7020	33%
Family	8360		2646		2502	
Hired	6578		3443		4518	
Capital	17006	52%	18095	73%	13610	64%
Variable	12048		11708		9600	
Fix	4958		6386		4010	
Total	<u>32498</u>	<u>100%</u>	<u>24705</u>	<u>100%</u>	<u>21155</u>	<u>100%</u>

- Larger in size farms achieved better financial results and demonstrated higher efficiency compared to the smaller ones.

	SSF	MSF	LSF
Gross revenue (€/ha)	23866	25776	26829
Production costs (€/ha)	32498	24705	21155
Net profit/Loss (€/ha)	-8632	1071	5674
Labor wage (€/h)	1,40	4,23	7,38
Gross margin (€/ha)	5240	10481	12711
Farm income (€/ha)	8538	9508	14156

## Discussion and Conclusion

- The economic performance and profitability of the mussel sector depends heavily on the size of the farms.
- Larger farms utilize economies of scale and, therefore, can be more competitive in the market.
- Smaller farms are not profitable, but mussel production is an important source of additional income for them - especially during periods of the year when fishing of other species is not feasible.

## Acknowledgements

The paper is part of the project "SmartMussel - Smart automatic management system for mussel farms" which was co-funded by the European Union through the Special Actions "Aquaculture - Industrial Materials - Open Innovation in Culture" (T6YBP-00388).

ΕΠΑνεΚ 2014-2020  
ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ  
ΑΝΤΑΓΩΝΙΣΤΙΚΟΤΗΤΑ  
ΕΠΙΧΕΙΡΗΜΑΤΙΚΟΤΗΤΑ  
ΚΑΙΝΟΤΟΜΙΑ

1

Technical and economic data were collected through in-person interviews from a sample of 19 mussel farms.

2

In order to highlight differences due to size (occupied surface area, farms were categorized as large size farms (LSF), medium size farms (MSF) and small size farms (SSF).

3

Descriptive technical-economic analysis was employed to provide an indicative picture of the profile, productivity and economic performance of the three groups.



96th Annual Conference | K U  
Leuven, Belgium - 4th - 6th April  
2022