

MODULE 1 CASE STUDY 1

The Business Model of MARF - as the Commercialized Marine BARF

Problem and Requirement

In Türkiye, an average of 45% of the annual 430 thousand tons of marine catch is thrown back into the sea before it can be landed, it is DISCARDED;

It is known that this amount, which is not economically profitable and is not considered human food, corresponds to approximately 190 thousand tons of product;

As long as discarded fish and marine fish fishing exist, they cannot be eliminated by scientific and technical means; and

Discarded fish should be transformed into a value-added product and brought into the economy instead of being thrown back into the sea.

Solution and Product Technology

The food industry used in feeding pets shows a growth of 2.6% annually.

The most important and ever-increasing need of the sector, which is divided into two raw and dry food, is "raw materials of animal origin";

In this business idea proposal, a raw food prototype will be developed in which a large proportion of discarded fish will be used in the nutrition of domestic cats and dogs; and

In this way, the negative effects of discarded fish on the ecological balance will be reduced and it will be possible to bring them into the economy as a value-added product.

Benefits of the MARF

Health from the sea thanks to cat and dog MARF raw food formulations prepared using the muscle and bone tissue of fish that are summarized below;

- Strong muscle and skeleton structure;
- Healthy teeth;
- No bad smell of breath;
- Brilliant and soft hairs;
- High food digestibility and fewer feces;

- Less allergic reactions; and
- Strong immunity.

Market and Target Customers

In European countries, 85 million households have at least one pet;

It is known that 49% of them are dogs or cats;

There is a market where 85 billion tons of cat and dog food are sold annually; and

A trade worth 21 billion euros continues to increase in this market.

The sales of the MARF are presented below;

- Cat and dog breeding farms: Wholesale
- Animal shelters belonging to municipalities and the private sector: Wholesale
- Petshops: Retail and wholesale
- Animal Hospitals: Retail and
- Veterinary Clinics: Retail and
- Pet owners, Pet Associations: Retail

MODULE 1: CASE STUDY 2

GARUM AN ANCIENT CONDIMENT THAT REDUCE FISH DISCARDS

CASE STUDY and WORK SHEET

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CASE STUDIES WORKSHEET

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CASE STUDY 1: Definition, Geographical Distribution, Usage, Preparation of Garum

Introduction

Garum is a fermented fish sauce that was used as a seasoning in the cuisines of Phoenicia, ancient Greece, Rome, Carthage and later Byzantium. From the excavations of the ancient city of Ephesus in Izmir comes a 1400-year-old dietary habit. A prominent feature of the era was the limited food resources, leading to the development of condiments as a means to avoid waste and be regarded as a symbol of wealth.

Description

Fishers found it unacceptable for the parts such as internal organs, bones, and blood of the fish to go to waste while preserving the flesh by smoking or drying. To prevent this waste, a method was employed where the blood, bones, and internal organs of the fish were subjected to a fermentation-autolysis process in "Dolia" (large earthenware jars) with salt or seawater. This process was used to produce the Garum.

Benefits

- This case study represents an ancient culinary practice, one of the ways to reduce discards and leftover of fishes.
- Employing it as a methodology for assessing discarded waste

Identified (module specific practices)

- Use of modern laboratories, scholars are working to recreate garum.

Drawbacks

- Ready-to-eat condiments of shrimp and fish origin make traditions difficult to maintain
- Additional labor for the fishers.

The above case study is adapted from and the link The text has been shortened for the purpose of the case study, but the wording remains the same as the original. To read the full text please visit this website:

1. <https://>

2. Further information available at:

CASE STUDY-1 WORKSHEET QUESTIONS

1. How does the Case Study-1 system work?
2. Could the system of Case Study 1 be applied to fish trawl fisheries? What is the problem with this system?
3. Think about the advantages and disadvantages of Case Study 1?

Policy/legislation	Benefits	Drawbacks
1.		
2.		
3.		



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