

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 19/KGS/STS001.1
NAME OF PROJECT: Oyster Bag Waste Management
IMPLEMENTATION PERIOD: 1st JANUARY -31st DECEMBER 2019

Project Scope

Plastic waste in the marine environment is an important issue that needs to be tackled. Oyster bags can be reused by aquaculture operators for up to 10 years. However, they ultimately become a waste stream and have proven difficult to recycle. Many operators have stockpiled their disused bags rather than send them to landfill and are now looking for a viable long-term solution.

This project was established to explore options for recycling and reuse of “end of life” oyster bags.

Objectives

To find an environmentally sound and cost effective long term solution for end of life oyster bags.

The study should explore solutions based on practicality, cost, logistics and environmental performance. This also applies to the treatment of bags to prepare them for repurposing/recycling. A life cycle assessment approach should be considered. It may include pilot test studies for the most promising repurposing/recycling options.

Project outputs to include:

- Quantification of bags currently in storage (BIM will provide direct support to this task).
- Estimate of quantity of end of life bags produced annually (BIM will provide direct support to this task).
- Identify the most viable solutions for current stored end of life bags including cost estimates, environmental performance and recommendations for logistics.
- Recommendations treatment and storage to improve and maintain the condition of end of life bags.
- Identify the most viable solutions for future end of life bags including cost estimates, environmental performance and recommendations for logistics .
- Results of pilot test studies undertaken.

Budget

Maximum approved expenditure on the project totaled €20,000

Achievements / Spend

The project was awarded to Maeve Thornberry Associates. A number of meetings and ongoing correspondence was held with BIM. This included visits to an oyster farm and bag suppliers and attendance at relevant waste management events. Some quality and property testing of bags as carried out and a number of samples were sent to interested parties for their own testing.

The main output was a comprehensive report addressing all of the proposed outputs. The bags comprise HDPE which is highly recyclable but as the oyster bags are reused for a long time and become dirty at end of life, options for direct recycling are more limited. A wide range of recycling and re-use/repurposing options were explored. Four clear options exist for oyster growers to deal with end of life bags.

1. Collection for recycling in Ireland (GreenMarine)
2. Collection for recycling in Spain (Intermas – main oyster bag manufacturer who also have a recycling plant)
3. Collection for re-use in Ireland (Local Authority Environmental Awareness officers / tide towns committees).
4. Collection for recycling abroad (Roc Recycling)

All of the above options require that the end of life bags are properly prepared prior to removal. This requires the removal of hooks, rubbers, seals and debris and neat storage on pallets.

Recently some growers have been sourcing bags directly from China. These do not carry the same quality guarantees as EU manufactured products. A further study was carried out to test the composition and quality of these bags relative to their EU equivalents. While a limited experiment in its sample size, it concluded that both bags were very similar in composition and strength have the same quality which provides some reassurances about the circularity of the Chinese sourced bags.

All results are clearly presented in the report which has been circulated to Oyster growers and bag suppliers. The report findings were presented at the oyster workshop in February 2020.

SUMMARY OF SPEND:

This project was significantly under budget. The work was completed efficiently.

Total Approved	
Total Eligible Expenditure	€11,507.56
Total Drawdown	€11,507.56
EU – 50%	€5,753.78
Exchequer – 50%	€5,753.78

Report: Grainne Devine

Date: March 2020