

FISH REST PROCESSING SYSTEM FOR TRACEABLE AQUACULTURE AND PET FEEDS

1 Aim

Endangered shark species were found in pet feeds and are suspected to be present in aquaculture feeds. Currently, tracing back the origin species of these feeds can be difficult. Therefore, this study investigated the design of a fish waste processing system that enables traceable aquaculture and pet feeds.

2 Lab prototype

At Blijdorp, fish waste material was processed into pet feeds by manually binding agar with fish residues. This process was converted into a mechanical process using a laboratory prototype. The prototype was able to replicate several aquaculture feeds used at Blijdorp.

3 System concept

Using the underlying process of the prototype, a concept was developed for a processing system that could produce pet feeds on Bonaire. This system was designed to recycle 10 kg of fish rest material per hour into standard wet dog feed portions.

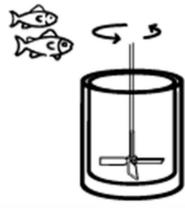
Working principle



INDUCTIVE HEATING AGAR



COOLING AND HOLDING AT 50 °C



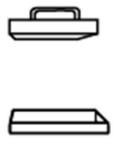
MIXING IN FISH RESIDUES



MOULDING



REFRIGERATING



SIZING



Lucas Frantzen
Design of a Fish Rest Processing System for
Traceable Aquaculture and Pet Feeds
28-01-2026
Integrated Product Design

Committee Benjamin Sprecher
Joost Alferink
Company Blijdorp - Roffa Reefs

**TU Delft**