

“SCALQUAL”

Doubling European production of the great scallop

The great scallop, Pecten maximus, is a highly valued seafood product on the European seafood market. The European market for scallops is however strongly dependent on import from overseas areas. In 1997, the EC imported more than 20.000 tons (meat weight) of fresh, frozen and chilled scallops.

The supply from EC countries is dominated by fishery (30.000 tons raw weight), while on a world scale the production of scallops is dominated by aquaculture (> 70 %). Most of the supply from European countries is dredged or diver harvested, but aquaculture production is increasing.

A major problem faced by European scallop growers is the poor survival associated with handling and transfer operations while in culture, which is probably stress related. In order to improve survival there is a need for increased knowledge of the relationship between cultivation methods, stress factors, quality and viability of scallops. This is equally applicable throughout all production phases.

The main objective of **SCALQUAL** was to increase the European production of the great scallop. The project took a holistic approach by incorporating a number of scallop production phases and drawing on both biological and technical expertise.

Specific objectives were to **improve the quality of marketable scallops and double the scallop production and thereby financial returns** by increasing survival of scallop spat from 30 to 35%, of juvenile

scallops from 50 to 65% and of adult scallops from 25 to 35%. Results showed that it was possible to increase survival during the spat growth phase by combining different strategies. Expected survival could be increased to at least 40 %, which was above the targeted 35 %.

It was found that, during transport, emersion (surfacing) can have a serious effect on spat survival, but under optimal conditions – and especially optimal temperature – high survival (> 90 %) can be achieved.

For juvenile scallop, a survival percentage of almost 70% was reached, also well above the target, mainly thanks to transport under optimal conditions in combination with growth at intermediate densities.

Finally, market size scallops were produced in 18 months with more than 40 % survival in suspended culture and in trays on bottom.



THE GREAT SCALLOP, *PECTEN MAXIMUS*, HARVESTED FROM BOTTOM CULTURE.

SOURCE: T. MAGNESEN/SCALPRO AS.

Project acronym:

SCALQUAL

Full title of Project:

Improving the quality of cultivated scallops to ensure a viable aquaculture production

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More specifically, a combination of optimum density and handling in the various cultivation techniques gave survival ranging from 40 to 87 %. In addition to this, these optimal conditions also appeared to have improved the quality of the marketable scallops.

Based on the project results, a Code of Best Practice was compiled that gives recommendations regarding important factors for improved quality and survival when farming scallops.

Increased scallop production from aquaculture within the European Community will greatly enhance the supply of high quality live and fresh scallops to the market.

Moreover, a doubling of the production will increase the scallop growing SMEs profit beyond a doubling of the sales income, as the increase in basic costs will be minimal. Since shellfish culture is commonly carried out in rural areas, SCALQUAL will also increase local employment through increased activity, both in aquaculture operations and the service sector.

**“INCREASED SURVIVAL
DURING THE SPAT
GROWTH PHASE WAS
ACHIEVED BY COMBINING
DIFFERENT STRATEGIES”**



NORWEGIAN, IRISH AND SPANISH SCALLOP GROWERS READY TO WORK.
SOURCE: T. MAGNESEN/SCALPRO AS.