

# A Case for Support of Cod Ranching in Rural Newfoundland

Cod Ranching (growout) began in Newfoundland in the late 1990's. At that time it was recognized that there would have to be changes made to regulations in order to provide access to cod. These changes were made by the Department of Fisheries and Oceans so that cod growout could move beyond an experimental level. During the 2000, 2001 and 2002 season this management approach was implemented, allowing fishers to stock their farms during the cod trapping season, rather than during the gillnet/handline season.

In 2003 a cod moratorium caused the collapse of the Cod Growout Industry, with most of the 45 license holders giving up production. One enterprise persevered the moratorium and has been in production since the cod fishery reopened in 2006. This enterprise, SeaWard Farms Inc., is submitting this brief to the Fisheries Resource Council in hopes that it will recognize that the regulations should be reinstated in order to support an enterprise that makes economic, ecological and social sense.

# It Makes Sense

## **Economic Sense**

SeaWard Farms Inc. has demonstrated that cod ranching can quadruple the value of an equal quantity of cod that is harvested within current cod fishing regulations (gill net and handline) and sold in a traditional market.

## **Ecological Sense**

SeaWard Farms Inc. tags every individual cod before it enters the market so that chefs know they are buying organic, sustainable seafood. Every individual fish is important.

## **Social Sense**

SeaWard Farms Inc. employs four seasonal employees in rural Newfoundland.

An Examination of the Conditions  
and Considerations for a

SUSTAINABLE COD FISHERY

An Artisan Approach

# An Artisan Approach

- A fishing method that virtually eliminates by-catch
- Small inshore fishing boats rather than large offshore commercial fishing vessels
- Small quotas are pooled to maximize cod quotas
- Produces premium product that is sold at a premium price

# Gooseberry Cove Cod

A sustainable seafood

produced in an Artisan Fishery

- Cod is captured live in a modified cod trap . This traditional fishing method significantly reduces by-catch when compared to gill netting.
- Cod is transferred to net pens and is fed pelagics (caplin, herring and mackerel) that are caught in the local area. The result is an organic seafood.
- Cod is harvested in a controlled environment. Controlled harvest results in superior quality.
- Gooseberry Cove Cod is an environmentally friendly, value added product that supplies the demand for organic , sustainable seafood.

# Gooseberry Cove Cod

a product of

## SeaWard Farms Inc.

SeaWard Farms strives to leave no carbon footprint

A 3.5 kw wind generator provides energy for daily needs

The company is investigating using cod liver oil as a bio-diesel to operate motors and generators.

(In partnership with the Centre for Aquaculture and Seafood Development at The Fisheries and Marine Institute of Memorial University of Newfoundland.)

# Gooseberry Cove Cod in the Market

**Gooseberry Cove Cod is being marketed in North America and Europe through an alliance with a company called Cleanfish**

**CleanFish is a company, an aspiration and a movement. They believe that by sourcing delicious seafood from people who care, they can spark a return back to healthy oceans and regenerative ecosystems.**

**CleanFish was named A Responsibility Pioneer by Time Magazine.**

**Clean fish was named America's Most Promising Social Entrepreneur by Business Week.**

**In 2009 Cleanfish sold Gooseberry Cove Cod to 42 different seafood distributors. Gooseberry Cove Cod was served in most of the major metropolitan markets in the U.S. including San Francisco, Denver, Chicago, St. Louis, Miami, Atlanta, NYC, Boston, Detroit, Philadelphia, Baltimore and Washington DC., as well as in Toronto. With 2009 being only the second year of the programme, Cleanfish and SeaWard Farms are both very pleased with what this alliance has achieved.**

# The Issue

**Despite demonstrating best practices in terms of environmental, social and economic issues DFO regulations threaten to cripple this sustainable fishery .**

**This fishery is bound by the same regulations as the commercial gillnet fishery .**

**The main area of concern is timely fishing.**

**Timely fishing means: Catching cod early in the spring instead of late summer .**

**It is essential to this artisan method of fishing that cod be caught early in the season for several reasons**

- 1. Early capture extends growing season.**
- 2. The annual supply of cod has to be captured before feed is in season.**
- 3. Cold water is needed during transfer from trap to the site.**

# Evaluation Needed

Whereas it is the purpose of the Department of Fisheries and Oceans to “**deliver programs and services that support sustainable use and development of Canada’s waterways and aquatic resources**”,

The Resource Council should evaluate current licensing to ensure that the DFO (in the least) does not thwart efforts to demonstrate stewardship in the Atlantic cod fishery.

[Cleanfish](#)

See Gooseberry  
Cove Cod at  
Cleanfish

See Gooseberry  
Cove Cod in the  
Media

Cod Growout  
Management Plan

ACCESS TO COD FOR GROWOUT  
AND  
MANAGEMENT APPROACH FOR 2000  
FISHERIES AND OCEANS  
NEWFOUNDLAND REGION

April 04,2000

## **ACTIVITY**

Live capture, harvest and monitoring of cod for growout.

## **SPECIES:**

Atlantic cod (*Gadus morhua*)

## **BACKGROUND:**

The growout of wild Atlantic cod is a process that involves the harvest of live cod using cod traps. These fish are transported or transferred alive from traps to marine cages set out at licenced aquaculture sites. The fish are then fed and cared for, for 3 – 4 months. Controlled feeding (with capelin, herring) results in an increase in the weight of the stock. The late fall / winter harvest of the fish also results in significant market price improvement. This increase in weight and price provides potential for significant improvement in returns from a limited cod resource. This approach to resource utilization offers fishers, particularly small boat enterprises, who cannot avail of new opportunities in other species located in more distant waters, an opportunity for sustained viability by maximizing the return from a relatively low volume of cod landings.

The Department of Fisheries and Oceans (DFO), the Fish, Food and Allied Workers Union (FFAWU), the Newfoundland Cod Growers Association, the provincial Department of Fisheries and Aquaculture (DFA) and the Atlantic Canada Opportunities Agency (ACOA) have been working with fishers to evaluate and demonstrate the potential of cod growout. Results from experimental projects conducted with fishers over the past 3 years indicate that these initiatives are technically feasible with potentially positive economic returns.

In 1997 and 1998, eleven commercial cod fishers with support from DFO and the Aquaculture Component of the Canada / Newfoundland Economic Renewal Agreement (ACERA), established growout operations to evaluate the potential of such operations. Eleven growers / fishers produced 72,500 lbs. in 1997. A missed trap fishery in 1998 due to late season opening resulted in only 4 of a possible 24 growers catching any live cod in traps. These produced approx. 67,400 lbs. in 1998. The results of this limited work showed that the weight of trap cod could be increased by 100%. Value to fishers also increased dramatically in comparison to the original value of the starting stock. In 1998, trap cod valued at \$0.50/lb increased to an average dockside price to growers of \$1.45/lb. In 1999, seven growers produced 107 t of product, receiving an average \$1.50/ lb. at dockside. Preliminary investigations have been conducted on ways and means of reducing costs and improving performance, including size sorting, use of manufactured feed and sale of by-products. These improvements suggest that cod growout warrants continued investigation on a commercial scale.

## RATIONALE

There is a need to expand what are currently pilot /experimental scale operations to the commercial project level to determine the full economical potential for fishers, rural communities and the fishing industry, and the implications such operations may have on the commercial fishery. Fishing techniques may require adjustment. Licenced growers must be given reasonable and practical access to cod to stock their farms to fully test operations. DFO will identify management adjustments and effective monitoring regimes to integrate growout operations into the fishery. This can only be done in a commercial environment where the full impact of the fishery regulations and business practices are applied.

The key to successful cod growout operations is timely access to cod (using traps) and pelagics (for feed). Currently, most Management Plans do not provide for the use of cod traps (2J3KL and 3Pn4RS) and / or the fishery opening doesn't coincide with the traditional cod trap season (all areas). Also, fishers involved in cod growout in 2J3KL have low Individual Quotas (IQs). In order to access sufficient quantities of cod to stock their farms growers need flexibility to:

- use traps (only known and available technology) to harvest the cod alive.
- harvest during the inshore cod migration that may be prior to season opening dates.
- partner with other fishers to pool IQs or weekly limits to acquire sufficient fish

## COD GROWOUT SITE LICENSES

Cod growout is an aquaculture activity licensed under the Aquaculture Act of the Province of Newfoundland and Labrador. DFO (Coast Guard) requires that cod growout sites be approved under the Navigable Waters Protection Act. There were 27 licensed cod growout sites owned by core fishers: 10 in 2J3KL, 16 in 3Ps and 1 in 3Pn4R. DFA will issue up to 25 new site licenses in 2000 to fishers who hold cod trap licenses.

## CONSERVATION:

### Potential for Reduced Pressure on Stocks

If preliminary results from the projects conducted over the past three years can be borne out under more rigorous commercial testing, then this would mean significant increase in revenue from growout compared with the harvest value of the cod. Analysis suggests that cod directed to growout can quadruple the value than an equal quantity of cod harvested during the fishery and sold through traditional channels (double the weight and double the price). Such improvement can help offset reduced quotas, contributing to a reduction in pressure on fish stocks.

### Spawning

The late spawning of fish in some areas may coincide with historical trap fishing seasons. Under normal fishing operations this could lead to the harvest of pre-spawning fish, a negative conservation

practice. This is not a factor with growout as any and all fish in spawning condition harvested from the traps and transferred for growout can spawn freely in the cages.

### **Mesh Size**

Current regulated mesh size for cod trap is 3 5/8 inches (92 mm) which can lead to significant meshing of smaller, (< 18 inches), low value cod which is often discarded. Small mesh in the drying twine of traps would reduce/eliminate meshing. The live cod can be sorted for growout allowing the smaller fish to be released alive and the larger fish, those that have spawned at least once can be retained.

A limited number of experiments will be continued to determine the feasibility and conservation impact of using small (min. 0.75" mesh) in at least the drying section of the trap.

### **INDUSTRY CONSULTATION**

DFO has held consultations and discussions with a broad representation of the fishing industry. The Fish Food and Allied Workers Union (and their Inshore Council) supports cod growout, and ONLY through their support has the activity been able to move forward. The Newfoundland Cod Growers Association (whose membership is composed of core fishers) and the Department of Fisheries and Aquaculture have been integral in the planning to date. In addition DFO has attended and provided information to a number of public information sessions on cod growout set up by Regional Economic Development Boards. The 2000 Access Approach for Cod Growout was developed through this process.

### **ACCESS APPROACH 2000**

The objectives of Cod Growout Access Approach (Plan) for 2000 are to:

1. Provide flexibility for fishers who hold cod growout site licenses to obtain sufficient quantities of cod to conduct a comprehensive assessment of cod growout operations.
2. Develop cod growout in an orderly and rational manner.
3. Fully integrate cod growout with the commercial fishery.

It is not the intent of this Plan to provide cod growers access to more cod than would normally be available to other licensed fishers.

### **GENERAL APPROACH**

#### **All Areas**

The fishery for cod for growout will be managed under an Experimental License issued by the Department of Fisheries and Oceans. Experimental licenses will be required by all fishers who fish for live cod for growout. Experimental licenses will be made available through an application process.

All **core** fishers who hold a growout site license be permitted to access a minimum of 20,000 lbs (round weight) per site in 2000. This will establish farms of sufficient size to provide for a full technical and economic assessment of the potential for cod growout and provide growers the opportunity to assess their capabilities relative to growout.

Core fishers who hold growout licenses, but who do not have cod trap licenses, will be issued experimental licenses that will permit the use of traps to be used exclusively to harvest cod for growout.

In addition, to enable growers to obtain sufficient quantities of cod to make their venture viable, core fishers who hold growout licenses may partner with a limited number of other licensed fishers to harvest cod exclusively for growout prior to the regular season opening. Such partners must be licensed to fish cod in the general geographic area as the growout site. Cod growers and the partners must be onboard the fishing vessels and participate in the harvesting operation for cod growout – i.e., a partner cannot transfer his cod to a grower and not participate in the harvest.

The maximum number of cod traps to be used in cod growout harvesting operations is two, unless otherwise authorized under the conditions of the commercial fishery.

Fishing season for cod growout may open as soon as the management plan for a fishery in the stock area is announced. Actual opening will be determined and announced by DFO.

There is a limited window of opportunity when cod trapping is effective. If the fish are not trapped within this time period, then the farms will not be able to acquire starting stock for the season. It is possible that in some areas the window for cod trapping will be expired before the commercial cod fishery is open. In order to facilitate the evaluation and development of cod growout, growers will be licensed to trap cod, for growout only, when the time is appropriate for cod trapping in their area, even though the commercial cod fishery may not yet be open.

### **Interim Measure**

In the event that the 2000 Management Plans are not available in time for the cod trap season in any particular fishing area, fishing for growout will be allowed to proceed on the basis of recommendation for a fishery by the Fisheries Resource Conservation Council for 2000. The formula used to determine individual quotas in 1999 will be used. Experimental licenses will be issued for the fishery. Fishers acquiring experimental licenses will be required to sign agreements to release any catches exceeding the individual quotas that may be established.

### **NAFO Divisions 2J3KL**

The Plan assumes that there will be a limited cod fishery in 2J3KL in 2000, similar to the 1999 fishery, with IQs. Commercial fishers who have licensed cod growout sites will be permitted to partner with up to six other licensed enterprises in the same general geographic area to harvest a maximum of 20,000 lbs (round weight), prior to the regular season opening, to be used exclusively for growout purposes.

## **QUOTA MONITORING**

All fish harvested for growout will be monitored through a monitoring program using recognized dockside monitors or fisheries observers. Any and all fish harvested, including mortalities, will be charged against the license holder. Fish will be weighed in accordance with a schedule developed jointly by the fisher and the Program Planning & Coordination Division of Fisheries Management Branch. Cost of monitoring (dockside monitors or observers) will be borne by the licensed fisher.

## **FEES**

As this is an experimental fishery additional license fees will not be required. Regular fees for licenses and monitoring will continue to apply.

## **REPORTING**

Fishers will be required to complete reports (data sheets) on a daily basis, and submit them at regular intervals to:

God Growout Coordinator  
Fisheries Management Branch  
Fisheries & Oceans  
P.O. Box 5667  
St. John's, NF  
A1C 5X1  
Telephone: 709 772 4027. Fax: 709 772 2110.

The data will be used to evaluate the overall project and to determine the effectiveness of the Access Plan and growout operations. Failure to submit data on a timely basis will result in loss of cod growout Experimental License for harvesting in the next year.

## **LICENSING PROCESS AND CONDITIONS – 2000**

### **Experimental License**

Experimental licenses will provide for the harvest of cod exclusively for growout purposes. Fishers will conduct activities such as: harvest operations when the season may be closed, use cod traps which may not be permitted in the commercial fishery, and partner with other licensed fishers for the purpose of pooling fish for growout, prior to the regular cod season opening. The license will also permit growers who are licensed core fishers, but do not have provision for cod traps attached to their groundfish licenses, to use traps for harvesting fish for growout.

### **Eligibility**

All Core status fishers who hold valid cod growout site licences, and core fishers identified as partners for the purpose of harvesting cod for growout.