Successful markets: Australia, NZ and France

By **R Buendia**

The big and successful shellfish markets include Australia, New Zealand, and France.

Marketing oysters in Australia

The Sydney rock oyster (*Saccostrea commerciales*) and the Pacific oyster (*Crassostrea gigas*) dominate the edible oyster production in Australia. In 1994-1995, oyster yield of around 9,300 tons had an estimated farm gate value of US $47.5 million (Sullivan and Kiley 1996).

Harvested oysters are depurated for at least 36 hours and then graded by hand. There are three grades, namely: plate (40-60 g), bistro (30-40 g) and bottle (20-30 g). These are packed in hessian bags and can be stored out of water for 2 weeks at a temperature of 8-10°C. Oysters are also sold half-shelled in boxes of 10 dozens. Prices range from $3.30 to 3.50 per dozen. Pacific cupped oysters and some plate-grade Sydney Rock oysters are sometimes sold at prices exceeding $4.50 per dozen to hotels and restaurants. The bistro grade is becoming popular to the consumers because it is cheaper. Still most oysters are brought to restaurants where profits can be as high as 300%.

The New Zealand greenshell mussel

The New Zealand's greenshell mussel, *Perna canaliculus* is one of the most successfully farmed and marketed species in the world. Long-line rope culture has been used, starting in the '70s. From then on a steady harvest has been achieved.

In 1985, 16,000 tons were produced and exports totalled US$5.6 million. By 1996, production had risen to 67,000 tons. Export reached $54.8 million for 17,000 tons of processed products (Monfort 1998).

Traditionally exported to Japan, USA and Australia, the greenshell mussel today is exported worldwide. Product forms are: (1) live in shell (packed in ice with a 10-day shelflife), (2) individually quick frozen (IQF) meats (smoked or marinated) and (3) deep-frozen in its half-shell.

There are four grades for each form (small, medium, large, extra large). For live mussel, the range can go from 11-14 pieces per pound (S) to 3-5 pieces per pound (XL). Recently, value-added frozen products were introduced in the market. These are vacuum-packed mussel (shell included) in garlic or chili sauce; hot-smoked mussel meat in sauce (plain, garlic, barbecue, Tandoori and Teriyaki) and coated mussel meat (Monfort 1998).

The success of New Zealand's mussel industry is attributed to the following:

(1) efficient long-line culture system;

(2) strict government control measures, such as checking that mussels are grown in certified clean waters, compulsory monitoring to detect marine biotoxins, and restrictions on harvesting in areas that suffer heavy rains; and

(3) the major effort put into exporting by the country's Mussel Marketing Authority. The promotional program includes distribution of a cookbook with 10 original recipes developed by Ritz Chef Michel Rots to renowned chefs, culinary institutes, and at trade events.

Oyster marketing in France

France is a major producer of oysters. Production in 1994 is 133,467 tons (Pacific cupped oysters accounted for 97%) (FAO 1994). A record was registered in 1986, when 146,100 tons was reached. Nearly all output is cultured (de Franssu 1990).

The Institute Francais de Recherche pour l'Exploitation de la Mer (IFREMER) is responsible for ensuring the quality of harvested oysters.

Like the wine industry, products are identified by region, e.g. Marenes-Oleron, Achachon and Bouzigues. Top product brands are *Belon* for flat oysters (*Ostrea edulis*) and *Finis de Claires* and *Speciales de Claires* for cupped oysters (*C. gigas*). These brand names are acquired in the "claires" or oyster ponds (de Franssu 1990).

At the end of the rearing period (2-3 years), oysters are transferred to the "claires" for fattening and improving their color and taste. The green coloration of the oysters which make them attractive and expensive is due to the phytoplankton diatom *Haslea ortrearia* whose green pigment diffuses in the water and is absorbed by the gills (Chew 1996).

Fines de Claires refers to oysters spending a month in the claires at a density of 20 oysters per m^2. For *Speciales de Claires,* it is two months at a density of 10 oysters per m^2. A new brand *Pouses de Claires* is characterized by a density of 5 oysters per m^2 and spends at least 4 months in the "claires." Price ranges $6-7 per kg (whole weight). *Label-Rouge* produced in Marennes-Oleron Bay region is known for its high quality standard. French oyster landings are carried to the Rungis (Paris) wholesale market. About 25% is marketed as *Fines de Claires* and less than 10% as *Speciales de Claire* and *Label Rouge* (Chew 1996).

French consumers habitually eat the oyster raw on the half-shell. Traditionally, 80% of the oysters are consumed during the Christmas season. However, with the establishment of supermarket chains, oyster consumption has become uniform with

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or twice every summer. Hatchery methods have also been standardized.

Japan's major farming grounds are located in Hiroshima and Miyagi prefectures. The major species cultured is *C. gigas*, the Japanese or Pacific oyster.

Cuba

Cuba farms the mangrove oyster (*C. rhizophorea*). To collect spats, farmers use mangrove branches or aluminum wires.

Oysters are harvested when they have reached 40 mm, the minimum legal size. Usually there are two to three harvests in 6-8 months depending on settlement distribution and tide levels.

Cuban farmers also use the raft method to grow oysters. The raft is made of steel pipes with an operational area of 18 m^2. For buoyancy, polyestyrene blocks are attached to the raft. Spat collectors are 1 meter long monofilament nylon with 10 shells spaced 7 cm apart.

Scotland

The blue mussels (*Mytilus edulis*) in Scotland have long been used as bait for line fishing. Dense beds are found in estuaries in the west coast. These mussels, however, are small and of poor quality due to overcrowding. Mussel culture started when seeds were transplanted to better growing areas.

Mussel farmers use the bottom and suspended (raft or longline) methods. Rafts are made of tube metals converted from salmon cages, timber, or galvanized steel. Polypropylene blocks serve as buoys. Rafts carry 100-200 culture ropes called droppers.

The long-line culture system is illustrated on the previous page. A 10 ton harvest from a 200 meter long-line is feasible, with a net income of $13,040-17,930 per crop (Karayucel 1997).

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only half of the products eaten during the year-end activities. Oysters are also exported to neighboring countries primarily in restaurants which serve French cuisine.

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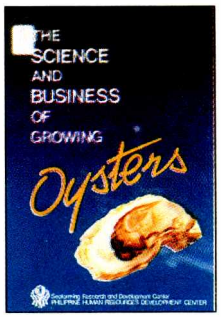

FURTHER READING

EXCELLENT REFERENCE

The work of the **Seafarming Research Development Center** (SRDC) based in the Philippines on oyster culture is detailed in the book **'The science and business of growing oysters'** published in 1991.

It contains information not taken up in this issue, for example:

- oyster **purification and processing**. A recirculating depuration system designed and tested by SRDC is discussed. There is also a depuration plant layout.
- **oyster products**: how to smoke oysters; procedure for canning smoked oysters in oil and for preparing oyster sauce; preparation of oyster by-products like grits/powder. Discussion also covers finished product specifications.
- areas in the Philippines that are suitable and unsuitable for oyster culture
- recommended recipes

SEEN AND NOTED

International processing plant in Capiz

The opening of a seafood processing plant two years ago in Panit-an Capiz, west central Philippines indicates that bivalve farming is an economically important industry. Currently, the company's average production of processed mussel and oyster is 2 tons a day. Product forms include canned smoked mussel and oyster in water or brine with various kinds of oil. All the plants output are exported to Canada, South Africa, Japan or Europe.

The company is now establishing and developing its own farms because of shortage of raw materials (processing capacity is 5 tons a day) and to meet increasing demand.