

## Mussels, a perfect food

*Mussels provide an exciting and involving dining experience that stimulates the senses. Their popularity has increased to such an extent in recent years that the seafood industry has been prompted to expand.*

Mussels are fabulously versatile, and can be prepared in an almost limitless number of ways to please the palate: with garlic butter, with cream, lemon or herbs, in delicious tomato sauces, even just steamed with white wine.

Not only are mussels a delicious and versatile food, they are also extremely healthy, as well as environmentally friendly to cultivate, and sustainable. By weight, mussel meat contains more protein than beef, far less saturated fat, many more mineral nutrients and a mere quarter of the calories. In addition, mussels are a generous source of fatty acids essential to good health.

Mussels occur naturally all around the world and have been cultivated for 800 years in Europe, although their history as a food predates that by more than 2000 years – mounds of mussel shells have often accompanied prehistoric settlements uncovered in Scotland.

The process of mussel farming begins with the accumulation of naturally occurring young mussel larvae – known as spat – on ropes suspended in the sea; the spat attach themselves to the ropes via their byssal threads (beards), and remain there growing naturally, with no assistance from man.

They are harvested in their prime after two to three years, then processed to a very high standard near the site where they grow. The proximity and speed of processing virtually eliminates the chances of contamination.

The significance of rope-growing is that it leads to the development of mussels that are healthier



than those dredged from the sea bed. Rope-grown mussels develop a greater meat content and a thinner shell, and most importantly, they contain no grit whatsoever, as they have never encountered the sea bed.

Isle of Shuna mussels form part of a renewable food source cultivated in a sustainable manner in the nutrient-rich waters around Scotland's west coast and the Shetland Isles. The waters receive the full benefit of the North Atlantic Drift, which flows eastward and has a mellowing effect on our climate. The sparse population of the Shetland Isles ensures clean seawater, and this, together with an abundance of plankton, makes the area perfect for mussel growing.

Farm mussels grown in a controlled environment – like ours – are far less likely to suffer contamination. But to be doubly sure, our production is strictly controlled, every batch of mussels being tested for E-coli before processing.

For all these reasons Isle of Shuna mussels are in many ways a 'perfect food'.



(From left) Isle of Shuna Managing Director John Brewer and Chairman Rod Burgess

## ISLE OF SHUNA: WHO WE ARE

Isle of Shuna is one of the largest independent suppliers of Scottish mussels, and our farms have been producing mussels for up to 20 years, combining both traditional and modern farming methods. We operate an established mussel harvesting, processing and marketing business from two locations, trading respectively as Isle of Shuna on the west coast of Scotland, and as Demlane in Shetland.

Isle of Shuna acquired Demlane, one of the largest producers and suppliers of rope-grown mussels in Scotland, in 2005. Demlane was the first company in Shetland to grow mussels on long lines, and the first in the UK to sell mussels boxed and iced. The two businesses together have a 20 per cent market share of Scottish farmed mussels in the UK, and Demlane alone sells around 600 tonnes of mussels annually.

The acquisition of Demlane has been of strategic significance for the business as it has enabled us to close an annual production gap – a disadvantage that affects most mussel-farming businesses. Due to the different spawning times at the Scottish west coast and in Shetland, the harvesting season in each growing area differs.

While mussels on the Scottish west coast are mainly harvested between July and early the following year, the harvesting season in Shetland tends to be later due to the colder water. With the two locations and businesses, Shuna now has almost year-round continuity of mussel production.

## NEW SMOKED MUSSELS

*Isle of Shuna Smoked Mussels are an exciting new premium line from Isle of Shuna, and one which opens up a host of culinary opportunities for all. You can read about our new product in detail – see page 3*



## THINGS YOU DIDN'T KNOW ABOUT MUSSELS

- *Mussels can live for up to 50 years, although cultured ones are harvested at around 28 months.*
- *You can tell the difference between wild and cultured mussels by looking for the dull bluish colour, white erosion marks and attached barnacles of the former. Cultured mussels such as Isle of Shuna's have shiny blue-black shells.*
- *The mussel's 'beard' is known as the byssus. It is used by the mussel to attach itself to surfaces with the aid of a secreted adhesive cement.*
- *Before preparing a mussel for cooking and eating, the byssus should either be cut off or removed with a sharp tug.*
- *Mussels are usually prepared by steaming over a medium heat for about six minutes or until the shells open.*
- *Mussels contain liquid that emerges during steaming, so there's no need to add water.*
- *Liquid leaking from the mussels in storage should be retained and used in the cooking.*
- *Mussel juice is delicious once cooked, and highly nutritious.*
- *Don't be concerned that mussels are of different colours: pale white meat indicates a male mussel, and a more orangey colour, a female.*

## STORAGE

MUSSELS ARE AT THEIR VERY BEST WHEN THEY ARE FRESH AND THOSE THAT AREN'T STORED ON ICE AT THE POINT OF SALE SHOULD BE AVOIDED.

Ideally mussels should be alive when you buy and cook them, unless they have been shelled and frozen of course. But how can you tell if they are alive? If the shell is tightly closed, the mussel is still alive; if it is slightly open, it should close promptly when you tap it. However, if the shell is open and doesn't close when tapped, you should throw it away – just as you should any mussels with broken shells.

If you aren't going to cook the mussels immediately after purchase, place them in a bowl, cover them with a damp tea-towel and refrigerate. The mussels



should keep for three or four days like this, but it's best to cook them as soon as is practicable.

Avoid keeping them in an airtight container or submerged in water. If you want to keep them moist it's best to simply cover them with a damp cloth.

With a 25-day shelf life when kept chilled, Demlane cooked smoked mussels naturally have a longer shelf life than do the unsmoked fresh ones.

Cooked smoked mussels are perfectly suited for home freezing – simply place the lidded container in the freezer. Frozen in this manner, the mussels are best if eaten within two months.

If you intend freezing cooked mussels, place them in a container – either in their shells or as extracted meats – together with the strained, cooked mussel juice.

# Health

*As well as being tasty, mussels are wonderfully nutritious – rich in protein, minerals and heart-and-brain-healthy omega3, whilst low in saturated fat and cholesterol.*

Mussels contain more polyunsaturated fatty acids than any other shellfish, and more than many fish. For example, a 100g portion of mussels typically contains 1g of omega3, comparing favourably with haddock at 0.3g, and shrimp at 0.4g.

Shellfish in general are also excellent sources of the fat-soluble vitamins A and D, and can provide significant quantities of some B vitamins. Also, their level of iron is similar to that found in red meat, and mussels are replete with important minerals such as magnesium, copper, selenium and zinc.

The claim that eating seafood is good for the brain was for years dismissed as mere mythology. But over the past few years scientists have been able to prove that the fatty acids in certain types of seafood do indeed help the development and functioning of the brain. Dr Alex Richardson, a senior research fellow at Oxford University, has



found that the higher the concentration of omega3 in the blood, the better one's concentration becomes.

And beyond that, the latest scientific studies have shown that these fatty acids provide a wide range of benefits, from sharpening mental response, through boosting immunity and fighting heart disease and mental illnesses such as schizophrenia, depression and dementia, to reducing criminal activity.

Health experts are concerned that too few of us in Britain eat enough seafood, and that this could put us at risk of developing illnesses and mental disorders. As a fifth of the human brain is made up of fatty acids, it's easy to understand the connection.

A high seafood intake has also been shown to have beneficial effects on rheumatism, arthritis and osteoporosis. Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), the omega3 fatty acids found in seafood such as mussels, have an anti-inflammatory effect and reduce the platelet activity that causes clotting, while helping to lower blood pressure. The British Heart Foundation recommends that we eat at least two portions of seafood a week.

John Stein, professor of neurophysiology at Oxford University, and the brother of seafood-specialist chef Rick Stein, comments: "Fish is undeniably good for the brain: it can help dyslexic children to read, can increase concentration in kids with attention deficit disorder, and enhances co-ordination. There are even indications that it can improve the social functioning of autistic children."

Clearly, in terms of our health, mussels have a lot going for them; they give the lie to the often pronounced theory that the healthiest foods are the least tasty.

# Smoked mussels

*Isle of Shuna Shetland smoked mussels, using renowned Demlane mussels from Shetland, bring added value to this respected brand's lines.*

It's no secret that Shetland mussels are the finest that can be sourced because they are rope-grown in the cool, clean plankton-rich waters of the Gulf Stream. Because of these conditions they grow into healthier, fuller-flavoured mussels than those that grow wild or are cultivated in other waters.

It is only right that such high-grade mussels should be subjected to the best smoking process available, which is why we smoke them over oak wood – the finest wood available for the purpose.

Our mussels are lightly smoked while still in their shells, which gives them a distinct though subtle flavour, not comparable with the traditional heavy smoking of fish products such as kipper.

Smoking is a long-established method of preserving seafood and enhancing its flavour, and because oak is a slow, progressive-burning wood, it produces the subtlest, least acidic and most satisfying taste, giving rise to the claim that it is 'the Queen of smoking woods'.

Jim Tait, who founded Demlane a decade ago, built a smokehouse with the intention of adding value to the raw product, and doing so as close as possible to its source. Since the acquisition of Demlane by Isle of Shuna, this smokehouse has been put into full commission and is exclusively dedicated to oak-smoking Demlane mussels.

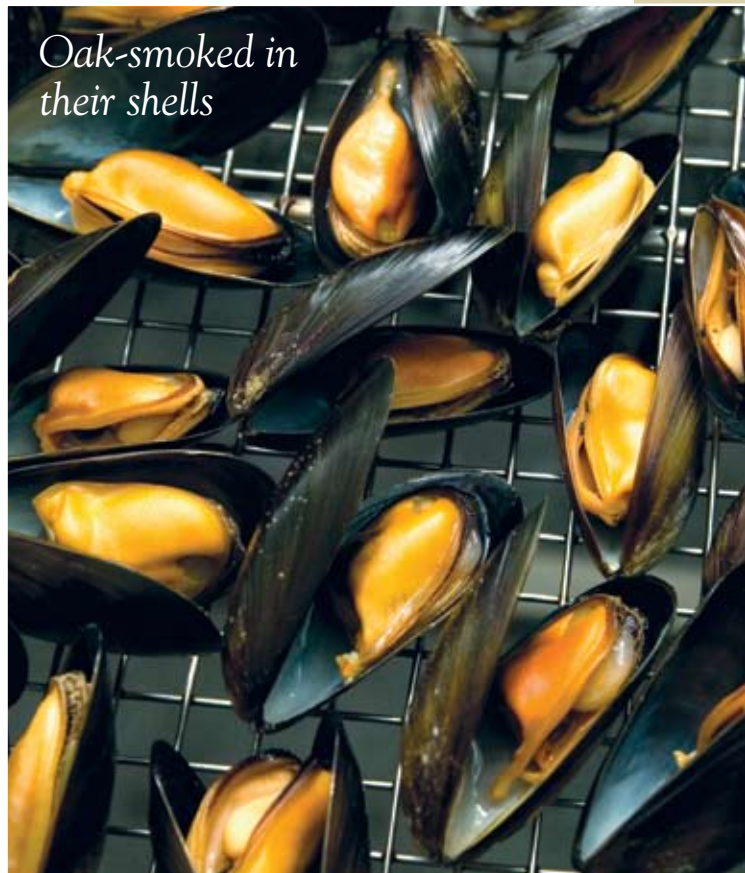
As part of the development of this new product, Isle of Shuna employed food-technology and shellfish expert Rod Knutton to refine the smoking process and develop the product into a premium one ready for the retail market.

Rod, who will already be known to some of you, has received numerous food-industry awards and has devised many processes for adding value to high-quality raw materials. His appointment as Shuna's Head of Technical

Development is a key step in the company's strategy to develop value-added mussel opportunities for all.

Isle of Shuna smoked mussels really are a unique product: not only is the company alone in smoking Shetland mussels – and in Shetland – it is also unusual for smoking them in their shells, and doing so at source. These advantages maximise freshness by eliminating the likelihood of contamination, as well as maximising taste.

The new Isle of Shuna smoked-mussel line provides great opportunity to capture an entirely new market on the strength of distinctive taste and the lengthened shelf life the smoking process allows.



Our oak-smoked mussels are destined to find numerous uses in new recipes; if you happen to develop one of your own, we will be delighted to hear about it.



## SUSTAINABLE AND ECO-FRIENDLY

*The growing areas for Isle of Shuna's mussels are located well away from areas of industry and concentrated population, and this helps us to produce a cleaner, healthier and ultimately tastier mussel product.*

*Our mussels are not dredged from wild stock living on the seabed but come naturally from the sea as spat, and are grown suspended from lines anchored in open waters.*

*Mussels are filter feeders, which live off the plankton that grow naturally in the sea; consequently they don't consume any artificial additives or chemical substances during their growth, and none are added at any stage of processing.*

*The mussel-farming process is totally natural and chemical-free; the mussel farmer is entirely dependent upon nature, merely giving the occasional helping hand when it's needed.*

*As the cultivated shellfish spawn directly into the open sea during their growth cycle, they help to sustain and renew the very resource from which they are drawn. And the long lines which form home to these high-quality shellfish act as floating reefs that provide food and shelter for numerous other marine species.*

*Even the process of harvesting is environmentally friendly; the shellfish are taken from mid-water rather than being dredged off the sea bed, and the result is a grit-free product of unparalleled taste.*

*Our mussels and the processes behind them are very much in harmony with the environment.*

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# CONTACT US

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## YOUR BUSINESS

### The Harcourt Arms

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A warm welcome awaits you at The Harcourt Arms, a c.1700 grade II listed free house run by Derek and Jo Wilby. Isle of Shuna News caught up with Derek, who looks after the food side of things, to talk mussels.

"I love seeing mussels sell well in our restaurant. To see a steaming bowl of moules marinières is fantastic; I call it an interactive dish because you just have to roll up your sleeves and get stuck in. People see other people eating them and think, 'I fancy some of those too.'"



*"my motto is: 'in the Harcourt Arms, customers must always get exactly what they want!'"*

are towards the end of their life I might use them in a bisque or perhaps as a risotto or sauce ingredient."

If they are such a great product to sell, what is he going to do to try

and sell more? "Well, there's no doubt that mussels are high up my list of products that I want to sell. They provide a good mark-up, generally at least 300 per cent, and are visually very appealing. We have just added them to our new bar-snacks menu and are going to highlight

them as a speciality on our restaurant starter menu, referring to them specifically as 'Isle of Shuna' mussels. We'd like to find more ways of reminding our customers how good they are for you too."

And does he have a favourite mussel dish he likes to serve his

customers? "The funny thing is, we have experimented with moules provencal and even a mouclade, but they always ask me for marinières, and my motto is, 'in the Harcourt Arms, customers must always get exactly what they want!'"

Like all restaurateurs, Derek is focussed on controlling costs. "Input costs are spiralling and passing these price rises on to our customers is very difficult – gas prices have doubled, raw material costs are drifting northwards and minimum wages are set to rise again. When you create your menu, you know that what you sell from it determines your overall margin. You must offer a good choice, but in my mind there is a hierarchy of things that my accountant would like me to sell. Lots of chicken, not too much beef and plenty of mussels."

Is food wastage a problem for his restaurant? "Managing food waste is always a challenge. You never want to over-order but then again you hate to ever run out of anything. We never have a problem with wastage on mussels – we sell everything that we buy. They have a long shelf life but they are also very versatile. If they



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