The Magic of Maldon sea salt

"Salt is the stuff that makes taters taste nasty if you don't put none in"

Schoolboy howler

Contents

Booklet published by:
The Maldon Crystal Salt Company Ltd.
Wycke Hill Business Park,
Maldon, Essex CM9 6UZ
T: +44 (0) 1621 853315 F: +44 (0) 1621 858191
www.maldonsalt.co.uk
Designed & produced by:
Barber Jackson Ltd.
www.barberjackson.com

What is Salt?

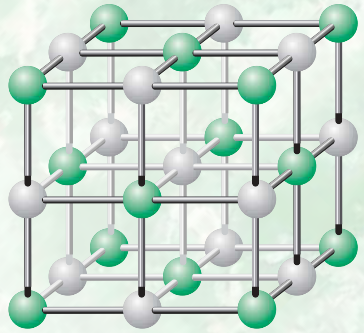
Salt is a natural mineral made up of white cube-shaped crystals composed of the two elements, sodium and chlorine. They are chemically united to form sodium chloride.

Essential for life, all plants and creatures including human beings need salt to stay alive. A natural seasoning and preservative, salt aids digestion and forms part of a healthy and balanced diet.

Salt is present in our oceans and in deposits laid down millions of years ago from the evaporation of inland seas. It has been estimated that if the world's seas dried up there would be sufficient salt to cover mainland USA (excluding Alaska) to a depth of 2 kilometres.

Salt derives its name from the Latin word 'sal' which itself originated from the Greek word 'hals' meaning 'salt'.

Evaporating seawater is the oldest method of obtaining salt.



Salt comprises Sodium and Chlorine ions arranged in a lattice pattern.

Today, modern civilisation relies on a plentiful and inexpensive supply of salt to form the basis of the world's heavy chemical manufacturing industries. World salt production exceeds 170 million tonnes a year with Britain producing approximately 4% of the world's total.

It is said we use salt in more than 15,000 different ways with a multitude of end products as varied as the plastic PVC to household bleach and soda.

Salt has a range of amazing but contradictory properties. It may be used to freeze ice cream in the summer yet melt snow in the winter, it will preserve foodstuffs and is used as a fertiliser for sugarbeet yet will kill other plant life. It is indirectly used in the bleaching of cloth yet plays an important part in the tanning of leather.

Perhaps at mealtimes we should cast a more appreciative eye on those humble white crystals in the cruet which affect so many aspects of our lives.

Early Times

Salt has played an important practical and symbolic role in the everyday life of man for thousands of years. Prehistoric man both flavoured and preserved his food with salt. This salt may have been collected from the sea's edge.

Later civilisations are actually pictured using salt as a preservative – Egyptians packed the ducks they killed in jars of salt. Before man supplemented his diet with salt, wild grazing animals got the extra salt they needed from salt springs or rock salt which appeared above ground.

Because of its very practical contribution to everyday life salt became a very precious commodity – traded in some places ounce for ounce for gold. The earliest trade routes and the earliest taxes were inspired by the trade and demand for salt. Wars were fought over the possession of salt and salt rich areas.

The trade in salt is older than taxation. Bars of salt were carried from the coast of Africa to inland cities of the Middle East. Precious goods such as jewels and silks were traded for salt by Arab merchants. This happened thousands of years ago.

Salt-rich areas have always found customers for this irreplaceable item.

Campaigning Roman soldiers were paid 'salt money' or 'salarium' over 2,000 years ago. The word 'salary' is derived from this practice.

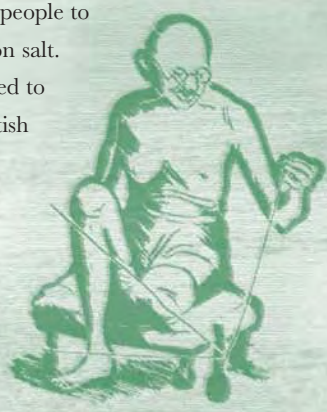
Salt's symbolic importance can be seen in many cultures and religions. It is believed the Druids used salt in their rituals at Stonehenge as a symbol of the lifegiving fruits of the earth – priests in Ancient Greece and in Rome put salt on the sacrificial altar.

Salt became a symbol of friendship and trust – if you shared your salt with someone you were offering a precious commodity. Phrases such as 'worth his salt' and 'salt of the earth' reflect this importance. In the Middle Ages whether you sat above or below the salt indicated your status. If you sat above the salt cellar you were 'of the rank' and could use the salt – below it you were of less importance and denied its use.

Until the relatively recent introduction of refrigeration, bottling and canning, one of the only methods of preserving food was to 'salt it down'. Salted bacon was the chief meat at the peasants' table in Chaucer's time and for many generations seamen existed on a diet of salted beef and pork with their ships biscuits.

Corned beef owes its peculiar name to the salt granules or 'corns' which at one time were used in its manufacture.

Salt taxes have had many important historical consequences. A heavy salt tax called the 'gabelle' imposed by the French King 500 years ago was one of the reasons the French deposed of their monarchy. During this century when the British ruled India, Mahatma Gandhi urged people to disobey a tax on salt. This contributed to the end of British sovereignty.



The Essex Salt Makers

For over 2,000 years in Britain, men have worked with nature developing the craft of making salt from sea water. Sea, sun, wind and fire all combine to create the soft white crystals of salt that are unique to this process.

The so-called 'red hills' of Essex are believed to be evidence of an early method of production. The reddish colour of the earth is due to burning and the remains of countless broken earthenware pots. It is thought that in Saxon times sea water was trapped in clay pans cut into the river bank and allowed to partially evaporate. The resulting brine was then put into pots and heated over an open fire. When evaporation was complete the pots were then broken open and the salt removed.

The first documentary evidence of salt production in Essex was in the great Domesday survey of 1086. This lists no fewer than 45 salt pans in the Maldon area, four of which were said to have belonged to Edward the Confessor. This once thriving ancient industry is reflected in local place names such as Salcott which refers to the primitive sheds or salt-cotes in which the salt was manufactured.

An Inn sign featuring the The Three Cups.

The antiquity of the Salter's Company which dates back to 1394 reflects the huge trade in salt for food preservation which has existed since earliest times. The Three Cups, which represent the armorial bearings of the Company, is a familiar Inn sign throughout Essex and a further reminder of the old salt traders.

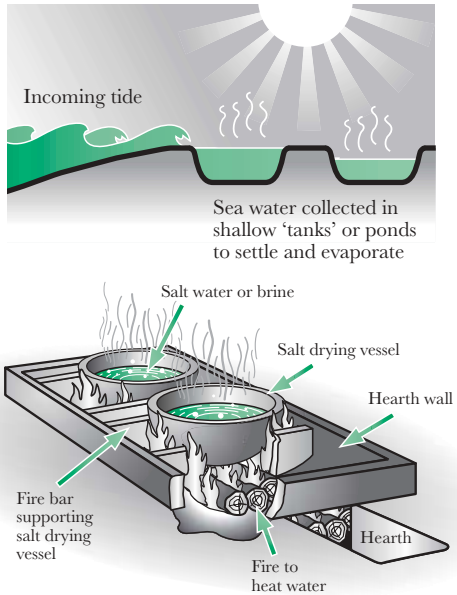
Today the Osborne family, Directors of Maldon Crystal Salt Company, maintain tradition by naming their houses, Salt-acre, Saltlands and Salters Lodge.

The attraction of Essex for salt-making remains the same today as it was hundreds of years ago. Its long coastline has numerous small creeks and inlets. Twice daily at each flood tide, the marshes are covered by sea water which is concentrated by the drying action of sun and wind. The returning tide picks up the more saline water, making Essex estuaries probably some of the saltiest in Britain. In addition the comparatively dry climate prevents undue dilution by rain, Essex being noted as the 'dry county'. Salt-making continued to be a flourishing industry on the Essex coast throughout the Middle Ages. At this time sea water was run into shallow ponds to settle and concentrate by evaporation. It was then boiled in leaden pans – or 'leddes' as they were then called – the salt crystallizing out on cooling.

The boiling was carried out day and night, the glow from the fires acting as a beacon for the sailors beating up the East coast. The craft was often handed down from father to son and the Will of John Creke dated 1547 bequeaths to his son Thomas his 'salcotte – and the leddes belonging to the said salt-house'. The town of Maldon was generally recognised as an important salt-making centre.

During the 19th century the salt-making industry in Essex went into a decline. From earliest times salt had always been heavily taxed, and in the time of the Tudors and Stuarts it was stored in heavily barred cellars called 'girnels' which were only opened in the presence of Customs men.

By 1805, the year of Trafalgar, the tax on salt had risen to £30 a ton. This created so much public resentment that in 1825 the tax was abolished.



An example of early salt making techniques.

As a result the salt industry in Cheshire expanded rapidly. With plentiful local supplies of coal and rock-salt, trading became chaotic with dealers offering salt at less than the cost of production hoping to put their competitors out of business. The effect of this on the industry was disastrous and today only four salt manufacturers remain in England. Of these the Maldon Crystal Salt Company is by far the smallest and the only company still manufacturing salt using many of the same processes handed down by generations of Essex craftsmen. The survival of this small but flourishing Company with an output of only a few hundred tonnes a year is solely due to the quality of its product which has remained unsurpassed for some 200 years.

Maldon and the Blackwater Estuary

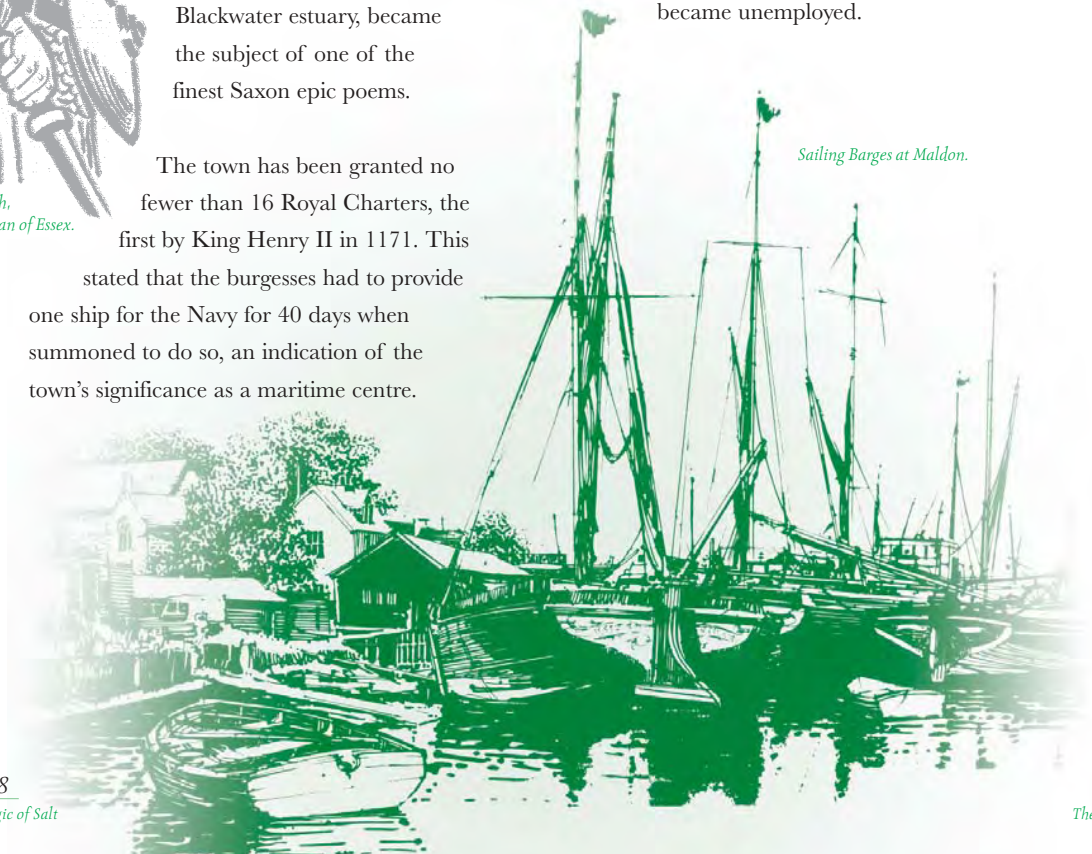
Maldon is one of the two oldest towns in Essex, the oldest being Colchester. It is situated at the head of the Blackwater estuary, at the lowest bridging point of the rivers Blackwater and Chelmer.
It is appropriate that the Blackwater derives its name from the word 'brackwater' meaning salty water.

Brithnoth, Ealderman of Essex.

The name Maldon or Maeldun can be interpreted in many ways – all refer to its important hill position 'the hill at the crossroads', 'the cross on the hill'. It formed a defensive site for a 'burgh' built in 916 by Edward the Elder.

The importance of Maldon can be measured by the waves of invading forces who chose to land here. Firstly the Romans, then the Saxons, the Danes and finally the Normans settled here. In 991 Brithnoth, Ealderman of Essex, was defeated by the Danes at the Battle of Maldon. This battle which is believed to have taken place on the causeway to Northey Island, a small island in the Blackwater estuary, became the subject of one of the finest Saxon epic poems.

The town has been granted no fewer than 16 Royal Charters, the first by King Henry II in 1171. This stated that the burgesses had to provide one ship for the Navy for 40 days when summoned to do so, an indication of the town's significance as a maritime centre.



Sailing Barges at Maldon.

Courts of Admiralty Seal.

By 1528 Maldon had been granted the privilege of holding Courts of Admiralty where maritime disputes were settled. Between the 17th and early 19th century the maritime trade increased in importance until the port became Maldon's chief source of income, coal and agricultural produce being the town's main cargoes.

The town's dependence on the river became obvious in the winter of 1776 when it froze over and two-thirds of the town's workers became unemployed.

One reason for the growth in trade was the rise of the sailing barge in the 18th and 19th centuries. With their shallow draught and spritsail rigs they plied the creeks, rivers, estuaries and inland ports of Essex and Kent.

In the 1830's there were regular barge sailings from Maldon to London. Finely restored examples of these craft may still be seen on the Blackwater or tied up at Hythe Quay Maldon.

The Blackwater estuary with its vast expanse of salt marshes provides a tranquil sanctuary for a rich variety of bird life.

Today Maldon is a centre for recreational sailing and it still retains the charm and interest of a quieter period of English history.

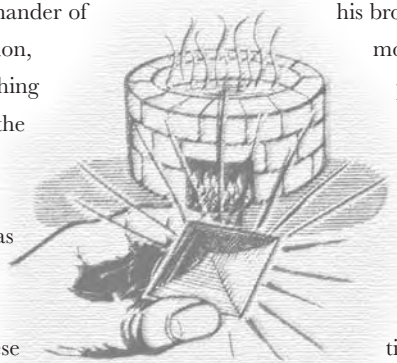
The Maldon Crystal Salt Story

The original buildings are believed to have been built on the site of a mediaeval salt pan.

The Maldon Crystal Salt Company stands on what is believed to have been the site of a Mediaeval salt works. Mediaeval brickwork impregnated with salt has been found on the site.

However, legend has it that the secret of salt making was discovered during the period when the Romans ruled Britain 2,000 years ago.

Cassius Petox, then commander of the Legion based in Maldon, suffered severely from 'aching bones' brought about by the damp cold weather.



He found that his pain was eased by taking hot sea water baths. During the preparation of one of these baths the water was kept boiling too long and was too hot for the angry Cassius.

He noticed however that there were small white crystals in the bottom of the bath, these crystals turned out to be flakes of salt. Cassius's servants had inadvertently discovered a method for producing salt from sea water. The story goes he gave samples of the salt to his brother officers who asked for more and so was born a predecessor to Maldon Crystal Salt Company.

Current records show that the production of Maldon Salt was greatly increased in the early 1700's. At the time it was owned by the Coe family who also monopolised local trade in Scandinavian iron and timber. The eminence of the Coes was well known with one as Head Burgess and Town Clerk and another the local Whig Leader in Parliamentary and municipal affairs.

Owner of the Maldon Salt Company in 1882, local businessman and J.P. Mr T.E. Bland.

The present building was first established in 1823 by Mr. Robert Worraker, described as a 'salt maker' when he moved his Works to its present site. Sea water bathing, a fashion current at the time, took place alongside at the adjoining Bath Place Wharf.

In 1882 the Salt Company was bought by a Mr. Thomas Elsey Bland, a Wine and Spirits Merchant, who played a significant part in local affairs as J.P. and County Councillor. He pursued the business with increasing success, trading as Maldon Crystal Salt Company, the deeds of which are still in existence.

Mr. Osborne Snr. checking the density of the brine.

More recent history tells us that on the 15th April 1922, James Rivers and his wife, Nellie Eliza, grandparents of the present owners, officially signed the document making them legal owners of the Company.

Maldon Crystal Salt Company delivery truck in 1923.

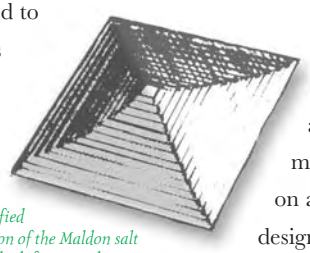
Some ten years later, James's stepson Cyril Osborne was handed the responsibility of continuing the tradition of salt-making. This lasted for the next 40 years after which time his son Clive entered the business and in 1998 his grandson Steven took control which he still continues to do today.

How Maldon Salt is made

The manufacture of Maldon Salt still relies on the favourable conditions which have enabled the salt industry to develop and flourish on the east coast for many centuries.

Water for processing is taken after a period of dry weather on the fortnightly highs, commonly know as 'spring tides', when the salt content is invariably at its maximum. The water is then transferred to large holding tanks where it is allowed to settle. After careful filtering it is then pumped to storage tanks to be drawn off as required, to fill the salt pans.

The "Stokehold" where originally the furnaces were coal fired. Today the company uses natural gas and has been awarded a certificate for energy conservation.

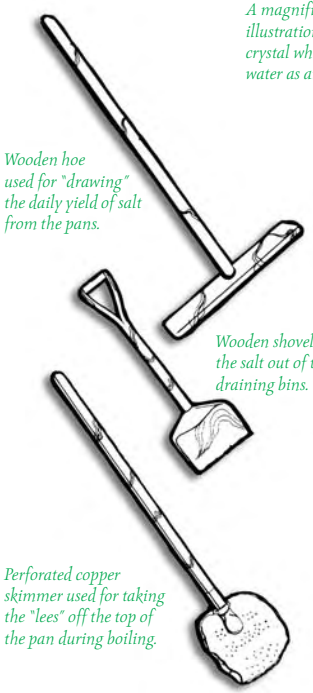


A magnified illustration of the Maldon salt crystal which forms in the water as an inverted crystal.

The large evaporating salt pans have stainless steel sides and measure approximately three metres square. They are mounted on an enclosed system of brick flues designed to give the specific heating pattern required. Originally the furnaces burned coal shipped from the north of England, and were hand-fired.

This required considerable skill in ensuring that the correct temperatures where obtained at different stages of the boiling process. Today the furnaces are fired by natural gas although it is still affectionately called the 'stokehold'.

In spite of the thermostatic controls, skill in maintaining the correct temperature is still essential. This art, which has been handed down from father to son, involves listening to the tell-tale sounds of the steaming pan and carefully watching the movements of the surface liquid and the formation of the salt crystals.



Wooden hoe used for "drawing" the daily yield of salt from the pans.

Wooden shovel used for taking the salt out of the pan into the draining bins.

Perforated copper skimmer used for taking the "lees" off the top of the pan during boiling.

After the pans have been filled, the contents are brought to a 'galloping boil'. During this period certain trace impurities rise to the surface as a froth (lees) and are skimmed off. The heat is then reduced to just below boiling point and as the mother liquor concentrates, crystals begin to appear on the surface. These form as tiny hollow pyramid-like structures which are unique to the Maldon process. As the crystals become heavier they fill with liquid and sink to the bottom of the pan. After 15-16 hours the pile of accumulated crystals reaches the surface of the liquid and heating is stopped.

The pans are allowed to cool slowly overnight and are then 'drawn'. This involves harvesting the crystals by carefully raking them to the side of the pan using traditionally made wooden hoes, a process requiring great dexterity. The salt is then shovelled into shallow drainage bins where it remains for 48 hours. It is then transferred to the salt store where the drying process is completed.

Maldon Salt originally packed in white cotton bags.

Before packaging, the humidity level of the crystals is finally adjusted by slow drying in a specially made low-temperature oven.

A traditional scene: raking or 'drawing' the daily yield of salt.

The archives at Maldon Salt Company include many letters from satisfied customers over the years. Not only was the salt then sold in retail packs, it was supplied in hundredweight sacks as well. One such letter was from T. Wall & Sons, 113 Jermyn Street, London, dated 1878. The company is now better know as Mattessons Walls Limited. They wrote:

'Dear Sirs,

With reference to the salt you supply to us, we have pleasure in stating that for the purpose of making Pickles we find it more efficacious than any other salt being much stronger, thus enabling us to keep them for a longer period, moreover being more economical.

Signed T. Walls & Sons'.

A similar letter was received from Harrods Ltd. Their recommendation reads:

'We found the Salt much better than ordinary salt for pickling BEEF a much smaller quantity being required for Brine. It also gives the Beef a much better flavour'.

Signed Harrods.

A framed order dated 6th October 1803, a relic of earlier times and different trading conditions, reads:

'Sirs, I shall be obliged by your forwarding me by as early a carrier as possible 3 bushels of Maldon Salt. I will thank you to enclose the A/C of it which I will pay in any way you may order.

I remain your Obedient Servant.

Signed Robert Barclay.'

A Victorian advertisement for Maldon Crystal Salt.

As long ago as 1884, Dr. Arthur Hill-Hassall M.D. writing in the Lancet commented that Maldon Salt was free from the bitter after-taste commonly noticed in other salt. He showed his confidence in the product by allowing his analysis and a declaration that 'from these results it is evident that the salt is of unusual purity and very carefully prepared' be printed on boxes and other artifacts.

At the turn of the century many leading London Stores were selling Maldon Salt in a brown cardboard box, holding approximately 2lbs packed more by volume than weight.

The product is now packaged on site in a humidity controlled environment using a weighing and filling machine which helps to ensure that the salt crystals are not unduly damaged. From here it is distributed in attractive 250g packets to markets both home and abroad.

At the turn of the century many leading London stores were selling Maldon Salt in this 2lb brown cardboard box.

Maldon Crystal Salt Today

Maldon Salt has become known worldwide and has been featured on many radio and television programmes. Hundreds of articles have been written about it in addition to numerous references in many well-known cook books. Thus Maldon Salt has become an institution, run by the fourth generation of the Osborne family.

The key to its continued success lies in the production of a unique high quality product using traditional natural methods. It is this combination of quality and tradition that has won it international acclaim.

Maldon Salt is a completely natural product without artificial additives, retaining valuable sea-water trace elements. It does not suffer from the over-processing associated with ordinary table salt.

Maldon Salt is free from the bitter after-taste often associated with other salts and salt substitutes. Its characteristic clean fresh taste enhances the flavour of all natural and fine foods.

At the table, the soft flaky crystals may be traditionally crushed between the thumb and forefinger or ideally used in a salt cellar or in a salt mill. Maldon Salt has a taste and flavour which adds a different dimension to salads and fresh vegetables. A good test is to sprinkle a few flakes on the cut surface of a raw sliced tomato and notice how it enhances the flavour.

For cooking, it is a small luxury which is amply rewarding in the final flavour of a dish. Use it more sparingly than is your custom, as you will find you need less than ordinary common salt.

Tidman's Sea Salt

The refreshing, invigorating way to better health

Tidman's Sea Salt has been marketed by the Maldon Crystal Salt Company since its amalgamation with the old established firm of Tidman's in 1973.

The title Tidman's was derived from 'tideman' a name given to someone who earned a living from the sea shore.

Tidman's was founded in Victorian times when the health giving properties of the sea and spa waters were greatly appreciated.

During the 1920's many eminent physicians and surgeons were still publicly extolling the virtues of sea salt baths for a wide range of conditions from measles to rheumatism.

Today the claims may be restrained but the benefits of sea salt baths as a natural remedy for many of the aches and pains of modern life are not in dispute.

2. These young people discover that a flirtation beside a bath of Tidman's salt is as good as one in the lee of an old boat.

The cartoon is a part of a series in "Funny Folks" in July 1879, an indication of Tidman's Bath Sea Salts' popularity.

A drawing from an early pack of Tidman's Sea Salt.

Tidman's Salt is a specially selected sea salt similar to the 'Bay Salt' of the eighteenth century.

The long experience of salt making at Maldon enables the company to select for Tidman's a salt of superior quality.

There is now a range of Tidman's Bath and Table Sea Salts, together with a Rock Salt which is ideally suited for use in salt mills. These are widely distributed to Chemists and the Health Food Trade as well as being exported worldwide.

Salt is our business

Current Site used since 1882.

Today there are only four manufacturers of salt in England. Of these the Maldon Crystal Salt Co. Ltd., still a family concern, is by far the smallest. The key to its continued success lies in the production of a unique product, using traditional natural methods. It is this combination of quality and tradition that has won it international acclaim.

The Company has established its reputation in four areas:

- Maldon Crystal Salt, a unique and prestigious product that has become known worldwide for its flavour and quality being sought after by the health conscious and gourmets alike.

- Tidman's Sea Salt has been marketed by the Maldon Crystal Salt Company since its amalgamation with the old established Tidman's firm in 1973. Tidman's having been originally founded in Victorian times when the health giving properties of sea and spa waters were widely appreciated.

- Maldon Crystal Salt Company also specialises in the importation of selected sea salts. These are distributed to many companies both home and abroad for use in a wide range of products from food to cosmetics.

- In addition the Company are local stockists of all commercial grades of salt. From salt used for the regeneration of water softeners – Essex being a notoriously hard water area – to salt used for defrosting snow and ice.

The Maldon Crystal Salt Co. Ltd has roots firmly entrenched in the past with a tradition the envy of many, yet today it is still a small but flourishing family concern.

Salt – Fact or Fiction?

Since the dawn of history man has used salt as a natural savouring and preserving agent for his food. Recently, medical research has shown that a low-salt diet is indicated for persons with high blood pressure. Following this a number of articles have appeared in the popular press some of which have exaggerated the effects of high-salt diet on the health.

The purpose of this section is to present briefly some of the facts concerning salt and your health which we hope you will find helpful.

Can we do without salt?

The simple answer is no. Without salt our bodies would cease to function. Muscles would not work, nerves would not carry messages and food would remain undigested.

The reason is that over half our body consists of fluids which all contain appreciable amounts of salt. Each day the body loses a quantity of salt in perspiration, and urine excreted by the kidneys – even our tears contain salt. This must be replaced and therefore salt forms an essential part of a healthy balanced diet.

How much salt do we need?

This of course depends on the individual. The daily amount for adults is suggested as between 3-8 grammes and this is readily available in a balanced diet.

Can we have too little salt?

If salt is rapidly lost from the body, as in the case of excessive perspiration, salt starvation occurs. This causes muscle cramps followed by heat exhaustion. Athletes and persons working in hot humid surroundings may have to take salt tablets to supplement their normal intake of salt.

Is too much salt harmful?

A healthy person can consume a large excess of salt without harm. The body has a very effective mechanism for regulating its uptake of salt, retaining what it needs and excreting the rest via the kidneys. The thirst which follows eating very salty food encourages drinking which helps restore the body's salt balance. However, in the case of individuals suffering from certain kidney diseases or high blood pressure, a low-salt diet is necessary.

Can salt cause high blood pressure?

Although this has been suggested in recent years, there is no medical evidence which shows conclusively that salt can cause kidney damage or high blood pressure. Salt intake has little effect on the blood pressure of healthy individuals.

What is a salt-free diet?

There is no such thing as a salt-free diet as it is virtually impossible to prepare food entirely free from salt. A low-salt diet is however frequently prescribed for persons suffering from high blood pressure.

What is the best way to reduce salt intake?

The 'pinch of salt' used to flavour food at the table or during cooking is of minor importance compared with large amounts of salt and related materials used in processed food. It is advisable to cut down on high-salt foods such as preserved meat and fish, pickles and sauces, salted nuts and crisps, tinned vegetables and 'take-away' meals.

What about low-sodium food and salt substitutes?

These are expensive and quite unnecessary for healthy persons. Control of salt intake is better achieved by sensible eating habits rather than by resorting to artificial or processed foods. Salt is a natural mineral and preservative not an artificial additive.

What about sea salt?

The salt composition of our tissues is similar to that of seawater, and salt such as Maldon and Tidman's provides one of the simplest ways of meeting our dietary needs. They retain the valuable natural trace elements which are often removed during the processing of other table salts. The pronounced and distinctive flavour of both Maldon and Tidman's Salt, means that less is required for flavouring and cooking. This is an additional advantage for those wishing to reduce their salt intake.

We are indebted to Dr. P. Tooley M.Sc., Ph.D., for his technical assistance in preparing this section and ensuring the accuracy of the contents.