

SMAP NEWSLETTER

First Quarter, 2022

Salt Manufacturers Association of Pakistan's Bi-Monthly Newsletter



SALT MANUFACTURERS ASSOCIATION OF PAKISTAN is a non profit organization instituted to represent and protect the rights and forward fair demands of salt manufacturing community through global representation.

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"LIFE WOULD PALL IF IT **WERE ALL SUGAR; SALT** IS BITTER IF TAKEN BY **ITSELF: BUT WHEN** TASTED AS PART OF THE DISH, IT SAVOURS THE MEAT. DIFFICULTIES ARE THE SALT OF LIFE".

ROBERT BADEN-POWELL

Chairman's Message



Salt Manufacturers Association of Pakistan is putting great emphasis on building a community that not only understands the challenges faced by the salt sector but share the wisdom of successful salt businesses with others.

Year 2021 has been tremendously challenging for all of us specifically in terms of business, from closing borders to rising shipping costs, in general economy was triggered at a micro level and have severely affected Ease of Doing Business.

Despite the hurdles of doing business, Government and Associations have worked together day and night to emerge much stronger from such complex problems.

Most of the salt manufacturers and exporters have realised that going back to the way things were back in 2019 is not an option but thinking of sustainable solutions to move ahead in 2022 is the only way forward.

It is my hope that our association's community can help everyone grow their network and build businesses successfully in the competitive world we now live in.

One truth that no one can deny is that we exist in this world to make a difference in people's lives in our own unique way and this is actually what we do at SMAP.



Your salt wardrobe may already include black, white, and pink. But what about green?

Green salt is produced from Salicornia, a halophyte, planted on salt-affected farmland in northern Baja California, Mexico.

The crop is cultivated organically and goes through the process of dehydration and pulverization to make a salty powder known as Green Salt.

Even though it is salty enough to be used in place of table salt, it is substantially lower in sodium.

Green salt is believed to add a vegetal flavor when sprinkled on top of the egg, potato, and fish.

Furthermore, fine dining restaurants all over the world are increasing their use of fresh Salicornia as chefs appreciates how its salty taste complements seafood.

Green Salt does not only have a good nutritional profile but it also has been demonstrated to have antihypertensive properties.

According to a study carried out by Zhang and other researchers in 2015, it was found that sodium chloride derived from Salicornia which was fed to rats did not develop high blood pressure in rats while sodium chloride was derived from table salt developed high blood pressure in rats.

In this study, the researchers believe that Salicornia's other minerals (magnesium, calcium, and potassium) might have a protective effect against high blood pressure and the deleterious effects of sodium.

Today, Green Salt and Salicornia could be a much-needed solution to the world's high blood pressure crisis.

Egypt's 'Snowy' **Mountains** Becomes the New Tourist **Destination**



The salt mountains of Port Fouad lie at the northern end of the Suez Canal. Egyptians and foreigners have been flocking to unique spots from various parts of the world to enjoy the scenery.

Most of the tourists reach the salt mountains by taking a ferry ride through the Suez Canal to the salt city.

While the salt mountains might lack the icy temperatures, they're apparently no less refreshing. The salt has healing properties and sitting on it has the ability to clear negative energy out of the body.

"Sitting on Salt absorb's negative energy out of the body "



The salt which makes up the mountains is harvested when seawater collected in pools at Port Fouad evaporates in sunlight.

Salt Mountains are the focus of an ongoing project that looks at Egypt from a different perspective, shedding light on tourist and heritage sites overlooked in favor of more obvious attractions like the Pyramids.

War on Salt is Misguided

Health doctors are of the opinion that it is not proven that lowering sodium consumption would reduce the chance of developing cardiovascular diseases or increase the rate of premature death.

Countries around the world have launched salt plans with the goal of a 5 percent reduction of salt in packaged foods and restaurants by 2025.

Researchers believe that the country's war on salt is "misguided" and potentially dangerous.

It has become difficult for people to follow this fact blindly. Thus, has resulted in several debates challenging this narrative.

Governments believe that excess sodium consumption is an important population-level risk for high blood pressure. However, there are some studies that suggest that the intake of sodium is beneficial to the body.

Governments have just focussed on just a single ingredient that the food industry is going to have to replace with something and what they replace it with might be more damaging.

Higher sodium intake has been shown in some studies to increase blood pressure, which is a major risk factor for heart attacks and strokes.

Moreover, there exist a relationship between sodium and blood pressure, but it's not consistent. And even when it's present, it isn't clinically very substantial.

For some high-risk heart patients, some studies show, a low-salt diet actually leads to worse cardiovascular disease and early death.

A research study conducted in 2020 suggested tha reducing the salt intake would result in a decrease insulin sensitivity, alter lipids, and stimulate a variety of neurohormonal pathways detrimental to the cardiovascular system.

Countries think that sodium is simply a marker of unhealthy food but the real target should be refined carbohydrates and highly processed foods.

Refined carbohydrates are a greater enemy.

Even though, governments around the world may have policies to reduce the salt intake, people still believe that consumption of sodium is essential for the body to function properly.

Homeowners Responsible for Ice Control



Homeowners in the United States of America are responsible for limiting dangers on their property. In some areas, governments expect homeowners to clear snow and ice or face fines.

Salt Institute conducted a survey in which it was found that county and municipal agencies have written policies that have directed homeowners to remove the accumulated snow within 24 hours of the end of the snowstorm.

it is very easy to do shovel the snow but the tricky aspect is how to remove ice. Nothing works better to remove ice from forming than salt. Salt lowers water's freezing point, the temperature at which it changes from a liquid to a solid and vice versa.

One of the most effective ways to use salt is by melting the ice that is right at the pavement. Once one is successful in doing that, it becomes easier to shovel the snow or ice from the sidewalk. This process of preventing the water from freezing is called anti-icing. It is best achieved by putting salt down on the sidewalk when snowfall is expected.

In contrast, melting water that is already frozen is called deicing and in this method, salt is applied once ice appears. This method works but is less efficient than anti-icing.

Commercially available anti-icing materials include salt (sodium chloride), calcium chloride, magnesium chloride, potassium acetate, and calcium magnesium acetate. Each has its advantages and disadvantages but salt remains the best choice for use at temperatures above 15 degrees Fahrenheit.

The dangers from slips and falls should not be taken lightly, especially for the elderly. Each year thousands are rushed to emergency rooms as a result of icy falls with injuries that could have easily been prevented.

How to Make Pink Salt Scrub

- Mix a quarter cup pink salt with half cup coconut or olive oil.
- You can also add a few drops of your favorite essential oil to this mixture.
- Apply in the shower using a loofah or your palms, scrubbing in circular motions.
- Be gentle with the scrubbing and monitor how your skin reacts.
- Wash off with a gentle cleanser and water afterwards.

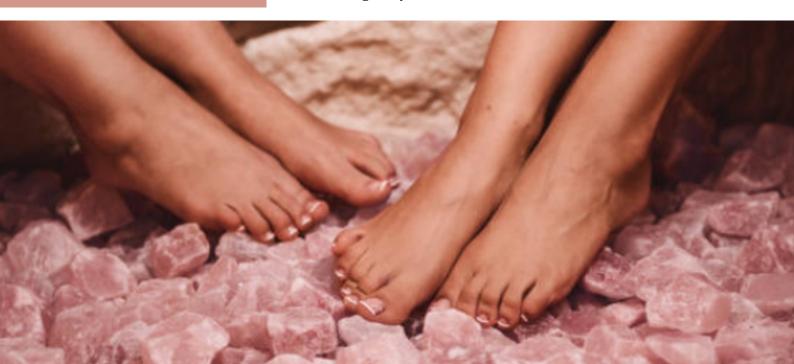
Himalayan Salt Scrub Makes Skin Look "Ten Years Younger"

Salt is considered to be a natural exfoliator and sloughs off dead skin cells easily. It contains several essential minerals which soften skin and restore hydration at the deepest levels.

The salt scrub includes Himalayan salt, sweet almond oil, glycerin, grape seed oil, jojoba seed oil, and lychee fruit essential oil, rounded out by vitamin E, aloe vera leaf juice, collagen, and a fruit cell culture extract. This combination of exfoliating salt and moisturizing oils has left an army of people raving that it makes their skin feel like a baby's bottom.

Many users of Pink Himalayan Salt Scrub have said "The way your skin feels after using the scrub, it's amazing. This is the **only** thing that actually helps me to clear out my pores other than actually extracting with tools. It has improved the elasticity of my skin. Goodbye cellulite and all facial issues. My skin looks radiant, glowing, and young again."

Whether you're facing cold weather days or planning on hibernating for the rest of winter, pink salt scrub might just be the answer to rough, dry skin or bumps that may accumulate from sitting on your couch 60 hours a week.



Designers Can Use Salt as a Material

Designers have developed software that simulates the growth of salt in various conditions to help other designers make use of the material in their own projects. This software allows users to visualize and better understand the crystallization process that occurs in salt flats.

Designers believe that the crystallization process requires somehow a particular way of thinking as salt is a growing material. The tools in the software have made the process simple and more accessible which will potentially incite designers to use salt as a material and to understand its limits and its possibilities.

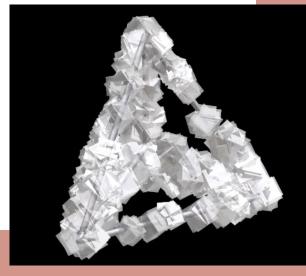
The software, which is hosted on the 3D animation software Houdini, uses algorithms to simulate the growth of salt crystals. Users of the software can change various parameters, such as temperature, air humidity, and wind speed, to observe how this impacts the growth of the salt.

An algorithm is developed to mimic the salt crystal's growth. This includes the salt crystal's growth rate, the crystals' change to create secondary crystals and faceted crystals, and the maximum size crystals.

The software can also mimic the application of an "anti-crystallization tool" – materials such as glass or silicone to which salt crystals cannot attach and grow when submerged underwater. These are used to guide the areas of salt growth and create various shapes.

The tools in the software have proven to be "very helpful" already and will be used to continue developing the designs of the salt lamp that sparked the idea for the software. It will now be continually developed so it can be shared as a learning and design tool.





Increasing demand for Himalayan Salt Blocks

Cooking food on something that is roughly 800 million years may sound odd and old but it has become one of the latest crazes in the barbecue and grilling world.

People are flocking to stores to get their hands on the Pink Himalayan salt block before the 4th of July which is the most popular US history holiday where 68% of the US population throw barbecue parties on that day. Traditionally, meats such as burgers, hot dogs and steaks are the center piece of any American's barbecue party.

The reason why Americans are buying salt blocks is because they believe that it contains a slightly higher amount of minerals, such as potassium, iron, calcium, magnesium, and sulphur. The mineral content varies from one salt block to another which makes each salt block experience unique in terms of the salt flavour it adds to each meal.

A single salt block on Amazon, can range anywhere between \$11 to more than \$50. The price mostly depends on the thickness and the colour of the salt block.

With the increasing demand for salt blocks, Salt Manufacturers and Exporters are of the opinion that in the next decade the sales of pink salt slabs will surpass the sales of other salt products. But this is only possible if people realise the true benefits of using Himalayan salt blocks.



Discovery of Salt workers residences

Louisiana State University (LSU) Maya archaeologist, Heather McKillop, and her team have discovered salt kitchens where the brines boiled in clay pots over fires in poles.

McKillop and Sills began this new project in search of residences where the salt workers lived and to understand the energetics of the production of salt with funding from the National Science Foundation. Although fieldwork at Ek Way Nal, where the Paynes Creek Saltworks is located, has been postponed since March 2020 due to the pandemic, the researchers turned to material previously exported for study in the LSU Archaeology lab, including hundreds of wood samples from pole and thatch buildings, as well as pottery sherds.

According to McKillop, "Using the well-studied site, Sacapulas, Guatemala, as a model, worked well to develop archaeological expectations for different activities for brine boiling in a salt kitchen, a residence and other activities, including salting fish."

In the Ancient Mesoamerica article, they report a 3-part building construction sequence with salt kitchens, at least one residence, and an outdoor area where fish were salted and dried. The archeologists' strategy of radiocarbon dating each building had produced a finer grain chronology for Ek Way Nal that they are using for more sites.

The new analysis verifies McKillop's estimate that 10 salt kitchens were in production at a time at the Paynes Creek Salt Works, which she reported in her book "Maya Salt Works" (2019, University Press of Florida).

"The research underscores the importance of radiocarbon dating each pole and thatch building at the salt works in order to evaluate production capacity of this dietary necessity. The research also shows the value of individually mapping artifacts and posts on the seafloor at the underwater sites in order to interpret building use. Using Sacapulas salt works as a model from which to develop archaeological correlates fits with Ek Way Nal and suggests the Maya living permanently at the community were engaged in surplus household production of salt that was well integrated into the regional economy, allowing them to acquire a variety of nonlocal goods," she said.

Reasons Why Horses Need Salt

Muscles produce a lot of heat during exercise. If the body is unable to get rid of the heat then it can limit the training capacity. Horses use large parts of their body muscles compared to humans and therefore produce more heat. This is one of the reasons why horses suffer more than humans from too much body heat that they hardly get rid of.

Humans and horses are highly dependent on sweating to cool down. Horses lose most of their essential minerals through sweating and if it's not replenished, an electrolyte imbalance may develop, leading to low blood pressure or cardiovascular problems.

In addition to shade and a source of freshwater, every summer turnout space needs to have a salt block. For most horses, a shared salt block in a turnout space is sufficient as the herd members will take turns licking it as needed.

The type of salt block you provide—plain, mineralized, or a fancy, imported variety—isn't as important as the fact that it's available. It is critical, however, that you only buy the salt blocks specifically labeled for horses. Those intended for other animals, such as cattle, might contain additives that are unsafe for horses. You may also provide salt blocks in individual stalls, but avoid putting them directly into feed tubs as this can result in the overly salty feed that the horse is unwilling to eat. Instead, use a smooth-edged salt block holder, securely mounted on a stall wall.

If a horse is working very hard in hot weather, he may need additional salt in the form of an electrolyte paste or powder. Your veterinarian can help you determine if your horse needs additional salt, as well as the best method for providing it.





Good nutrition for school children is a priority that everyone can support but not everyone can agree on the best way to achieve it.

Changes by the U.S. Department of Agriculture require schools to drastically alter their programs in ways that are hard to meet. Children, in particular, are rejecting the new meals in droves, defeating the very intent of the program.

The School Nutrition Association (SNA), which represents over 50,000 school nutritionists and cafeteria professionals, has called on Congress to relax these new standards specifically in regards to the number of whole grains offered, sodium reduction targets they consider unachievable and not science-based and mandatory fruit and vegetable servings which invariably end up in the trash.

"Fruit and vegetable servings invariably end up in the trash"



Korean bamboo salt: Most expensive salt

Koreans have used bamboo salt for cooking and traditional medicine for hundreds of years. It is produced by stuffing sea salt into bamboo and roasting it at high heat. The idea is to infuse the salt with bamboo minerals while also removing any contaminants. However, when compared to other types of salt, the price difference is significant.

The price of nine-times-roasted bamboo salt, sometimes known as "purple bamboo salt," can be more than ten times that of pink Himalayan salt. The laborintensive method accounts for the majority of the expense. Every step is completed by hand.

Imagine paying approximately \$100 for just 250 grams of salt. No wonder most of us think this is an extravagant affair, but this is how the world's most expensive salt is priced, and its ever-increasing demand will undoubtedly surprise you!

What makes this salt so expensive is the labor-intensive procedure, which involves doing most of the work by hand, from filling sea salt into bamboo cases to breaking and The smashing rock-solid salt. premium purple salt, in fact, is made by roasting it nine times at a high temperature. From the time the bamboo barrels are stuffed to the time the salt is melted nine times, the procedure takes roughly 40-45 days to complete.

Bamboo salt is thought to help with digestion, oral health, and skincare, as well as having anti-inflammatory and anti-cancer characteristics.

Dead Sea Salt: Good for people suffering from eczema

The Dead Sea is a landlocked lake bordered by Jordan to the east and by Israel and Palestine to the west. In fact, it is recognized as one of the saltiest bodies of water in the world.

Rocks that are eroded by rainwater forms the salt content in the Dead Sea. The acids gradually break the rocks with time, creating charged particles called ions which eventually find their way to the Dead Sea and other bodies of saltwater via runoff.

People from different countries have bathed in the Dead Sea for therapeutic purposes. Now, one can buy the Dead Sea salt at home for use.

A study conducted in 2005 investigated the effects of bathing in saltwater that contained magnesium chloride from the Dead Sea among people with atopic dermatitis, which is a type of eczema.

In this study, participants submerged one forearm in water that contained 5% Dead Sea salt for 15 minutes. Likewise, the other arm was submerged in tap water.

Over the course of 6 weeks, researchers examined their skin quality every week. By the of the study, the researchers noted that those who had submerged their skin in Dead Sea salts had better skin hydration and reduced signs of roughness and inflammation.





Use of Abrasives in Winter Road Maintenance

The most economical materials used in snow and ice control are abrasives. However, abrasives on the road must be removed, and sweeping add expenses. Abrasives can also cause damage to windshields and auto paint.

Abrasives don't melt snow and ice - they're inert and can't melt anything! So what can abrasives do? Well, they can increase traction, but in order to do so, they must remain between the tire and the ice - an impossibility in the presence of significant traffic.

Abrasives don't melt snow and ice.



As a result, abrasives must be used in large quantities and applied frequently, making them far more expensive than salt in terms of material and manpower. Unfortunately, abrasives are poorly understood and often misused, resulting in wasted material and money, and reduced safety for the traveling public.



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