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SPICE UP YOUR LIFE

WHEN EAST MEETS WEST

AN AROMATIC ADVENTURE



LET THE ADVENTURES BEGIN

OF SPICES & HERBS



In a distant era, a group of cavemen stumbled upon a remarkable treasure that would forever change the way they enjoyed their meals: SPICES. It all began with this remarkable discovery, an extraordinary finding that ranked second only to the discovery of fire in the realm of culinary art. These ingenious cavemen quickly realized the potential of these newfound treasures and started using them to gradually infuse their food and beverages with irresistible flavors.^{1,2}

Fast forward to 3,000 years BCE and the trade of these magical seasonings embarked on a perilous journey along the southwest coast of India, venturing into the Middle East. The cavemen-turned-traders were cautious, wrapping their precious secret in a shroud of folklore and spiritual tales, shielding it from prying eyes.^{1,2} Legends of dragons, phoenixes, and giant eagles guarding the lands where these spices were produced added an air of enchantment and exclusivity to the trade. The Arab traders, cunning masters of the game, monopolized these rare treasures, ensuring exorbitant prices.²

As the trade routes expanded, the "middlemen" Arab traders traversed lands like Antioch, Babylon, Persia, and the Indus Valley, employing caravan transportation and nautical expeditions while skillfully mitigating the risk of robbery.³ The journey of the Nabatean traders (ancient Arabs) took them from the Arab/Persian Gulf through Petra (Jordan) and Abdah (Palestine) to the bustling port of Gaza (Palestine), strategically navigating the vast territories relying on camel trains.⁴



Curiously, the first authentic records of spice usage date back to Egypt during the Pyramid Age, between 2,600 and 2,100 BCE.¹ Even royalty recognized the precious value of these spices. King Solomon received them as a gift from the queen of Sheba, accompanied by precious gemstones, in acknowledgment of his immense wisdom. Queen Cleopatra, too, was no stranger to their allure. She employed the most expensive spices in her arsenal to seduce the Roman, Gaius Iulius Caesar.³



Spices and herbs played an undeniable role in shaping human civilization, leaving an indelible mark on history.¹ One such momentous event blended the symbolic connotations of spices with the grand entrance of Rome's 5th emperor, Nero. To commemorate his arrival, the streets were lavishly strewn with copious amounts of saffron, infusing the city with an aromatic and vibrant celebration. In the last century BCE, the city of Constantinople, the eastern capital of the Roman Empire, emerged as the epicenter of trade between the East and West, serving as a hub for these luxurious products.

Cassiodorus, a Roman minister of the 6th century, famously proclaimed: "**Men can live without gold, but not without salt,**" illustrating the insatiable desire for spices during that era.³

Even the discovery of the New World was inadvertently influenced by the quest for spices. Christopher Columbus, while tirelessly seeking new trade routes, stumbled upon America, charting an alternate course westward instead of eastward. Such was the power and allure of spices that guided the explorations and colonisations of that time.⁵

Throughout the Middle Ages, the pursuit of spices fueled colonial conquests and voyages of discovery. The realisation of their enchanting medicinal and quality benefits spurred the search for direct routes to the East.¹ Alongside spices, new exotic herbs also found their way into the trade networks, captivating hearts, and taste buds.⁶

Different routes were established as dominant forces like the Greco-Roman empire employed the fabled "incense route".¹ In the 7th century, Muslims facilitated the direct spice trade to Europe for the first time, spreading their religion and marking the decline of the Roman Empire.³ The Greeks' and Romans' gains were preserved by the flourishing Arabic culture between 500 and 1,300 CE, where skilled Arab chemists expertly blended and combined plants, elevating their flavors and unlocking their therapeutic properties. These renowned Arab chemists established prestigious medical institutions across the expanding territories of Islamic culture in Europe, further enhancing the significance of spices.⁶



From the 15th century onward, trade in spices experienced a tremendous surge thanks to the emergence of maritime trade routes. These routes became the lifelines of the ancient world, particularly after the closure of land caravan routes due to the rise of Islamic authority.^{1,6} European countries soon recognised the immense profits to be gained from this trade and eagerly sought access to the sources.¹

It were the Portuguese who made a groundbreaking discovery, finding a passage from Europe to the Indian Ocean via the treacherous Cape of Good Hope in South Africa. They swiftly arrived in India, known as the "land of spices", and established trading centers that revolutionised international commerce.¹ As sage from Europe made its way to the Indian subcontinent, a whole array of other tantalizing plants such as turmeric, cardamom, ginger, cinnamon, and nutmeg were introduced in return.⁶

One of the earliest benefits derived from these precious spices was their ability to preserve food, compensating for the lack of refrigeration methods at the time.²

And so, the captivating story of the spice trade unfolds, characterised by a cycle of monopolies that led to soaring commodity prices. It began with the Arab traders, then passed into the hands of the Romans, followed by the Muslims, and finally, the Portuguese. However, as knowledge of this historical trade spread among the public, the era of monopolies came to an end, gradually bringing down the prices of these once-precious commodities.³

Now, let us embark on a journey into the enchanting world of spices and herbs, where we will discover the secrets to living a healthier life, free from malnutrition, deficiencies, and diseases. Through their extraordinary qualities, we will unlock the hidden wisdom of ancient civilizations and embrace a holistic approach to well-being.¹



1. A.B. Sharangi et al. (2018). Underexploited Spice Crops, *Apple Academic Press*.
 2. N. Khan (2018). The Spice Route: A Historical Survey, *Int. J. Appl. Res.*
 3. S.B. Mrad (2005). Spice trade: A history of a fantasy substance. *Proceedings of CHARM*, vol. 12, pp. 11-15.
 4. <https://www.bibleplaces.com/spiceroute/>
 5. <https://www.bbc.com/future/bspoke/route-on-earth/the-flavours-that-shaped-the-world/>
 6. A. Chevallier (2016). *Eyclopedia of Herbal Medicine*, *Dorling Kinderley Limited*.
 7. B. Gidwani et al. (2022). Indian spices: past, present and future challenges as the engine for bio-enhancement of drugs: impact of COVID-19, *JSAFA*, vol. 102, no. 8, pp. 3065–3077.

Black Pepper

"I Am the King of Spices,¹
Fulful 'Aswad / فلفل أسود – Schwarzer Pfeffer



"A spice so revered that even in ancient Egypt, I played a role in the sacred act of mummification.² With my distinguished flavor and the ability to boost the taste of food, I am none other than the magnificent black pepper!"

The distribution of pepper producers stretches from Southern India to Indonesia, Malaysia, China, reaching far and wide to Thailand, Sri Lanka, and Vietnam. It has a rich history, with the Greek naming it "piperi", (peppery, spicy) and the Romans treasuring it as a symbol of fine cookery during the Early Middle Ages. Today, India and Brazil are the most significant producers of black pepper.³

Over the course of millennia, black pepper has solidified its position as an essential spice in Arab cuisines, owing to their historical monopoly on the pepper trade.³ In the Gulf region, Saudi Arabia stands as a prominent importer of black pepper,⁴ infusing it into dishes such as *kabsa* (كبسة). Moroccans also incorporate black pepper into their cuisine, including dishes like *harira* (حريزة). Across the Mediterranean region, especially Lebanon, black pepper finds its place in the majority of households, gracing renowned dishes like *mulūḥīya* (ملوخية) and *kubba* (كبة). From the West, Germany emerges as the largest European consumer market for black pepper,⁵ enhancing major dishes like *Hacksteak mit Pfeffersoße*, *Sauerkraut*,⁶ and *Kalbsleber Berliner Art*.

Dual benefits

ON HUMANS^{2,7-9}

- Digestion improver
- Nutrient absorption facilitator
- Anticancer
- Antidiabetic
- Anti-inflammatory
- Cold companion
- Cough remedy
- Rich in elements like Ca, Mg & Na

ON FOOD²

- Antibacterial
- Antioxidant
- Shelf-life extender



Black Pepper

Black Pepper Cuisine



1. H. Takooree et al. (2019). A systematic review on black pepper (*Piper nigrum* L.): from folk uses to pharmacological applications, *Crit. Rev. Food Sci. Nutr.*, vol. 59, pp. 210-243.
 2. B. Hammouti et al. (2019). Black Pepper, the "King of Spices": Chemical composition to applications, *AJCEP*, 56-12, 1, 06.
 3. http://genmat-katzers-spice-pages.com/engl/Pipe_nig.html
 4. R. Ahmad et al. (2020). Quality variation and standardization of black pepper (*Piper nigrum*): A comparative geographical evaluation based on instrumental and metabolomics analysis, *Biomed. Chromatogr.*, vol. 34, no. 3.
 5. <https://www.cbi.eu/market-information/spices/herbs/pepper/market-potential/>
 6. <https://www.schwarzerpfeffer.de/sauerkraut-im-steinopf-selber-machen/>
 7. P.F. Tsui et al. (2018). Spices and Atherosclerosis, *Nutrients*, vol. 10, no. 11, p. 1724.
 8. K. Ashokkumar et al. (2021). Phytochemistry and therapeutic potential of black pepper (*Piper nigrum* (L.) essential oil and piperine: a review, *Clin. Phytoscience*, vol. 7.
 9. M.S. Butt et al. (2013). Black Pepper and Health Claims: A Comprehensive Treatise, *Crit. Rev. Food Sci. Nutr.* vol. 53, pp. 886-875.





Cardamom

The "Queen"

Ḥabb al-Hal / حب الهال – Kardamom



The "Queen" cardamom takes its place as the second member of the royal family of spices and ranks as the third most expensive spice globally, following saffron and vanilla.^{1,2} Originating from Sri Lanka and Southern India, the major exporting country today is Guatemala,³ where cardamom was introduced by a German planter in 1914.⁴



Mature cardamom capsules close before the harvest

Germany stands as the largest importer of cardamom in Europe, utilizing it in a variety of culinary creations such as *Pfeffernüsse*, pastries, sausages, and popular curry powders.^{5,6} They even developed a special innovation called *Cardamom Plus*, enhancing cardamom powders by adding encapsulated cardamom flavour to amplify its natural essence.⁷ Additionally, a renowned seasoning called *Chesapeake Bay* was crafted by a German spice trader, incorporating cardamom along with black pepper and nutmeg.⁴ German immigrants also played a significant role in introducing cardamom cultivation to Tanzania.⁷

Cardamom's pleasant flavour and aroma find great appreciation in Arab countries, particularly in the art of blending it into *Arabic coffee*. It is also integrated into various dishes such as *ašida* (عصيدة) in the Gulf region, rice dishes, and traditional sweets like the Egyptian *umm 'Alī* (أم علي) and Omani's *ḥalwā* (حلوى).^{1,8} The Arab countries account for approximately 60% of the world's cardamom production, with the United Arab Emirates and Saudi Arabia ranking as the top importers among them, along with Jordan, Kuwait, Syria, Egypt, Iraq, Qatar, Oman, and Sudan.^{3,9}

TRADITIONAL USE¹

- Digestive disorder remedy
- Obesity treatment
- Breath freshener and teeth cleaner

MODERN USE¹

- Anti-inflammatory
- Analgesic
- Antioxidant
- Antiseptic
- Depression remedy
- Influenza remedy
- Bronchitis remedy
- Gall bladder remedy



Arabic coffee



Pfeffernüsse



Umm 'Alī / أم علي

1. K. Singletary (2022). Cardamom Potential Health Benefits, *Nutr. Today*, 57(1), p 38-49.

2. USAID, ACCESO (2011). The World Market for Cardamom. *Report*, 1-10.

3. http://gernat-katzers-spice-pages.com/engl/Elet_cor.html

4. A. Green (2016). The Magic of Spice Blends, *Quayside*.

5. <https://www.cbi.eu/market-information/spices-herbs/cardamom>

6. T. Reyes et al. (2006). Small Cardamom—Precious for People, Harmful for Mountain Forests, *Mt. Res. Dev.*, 26(2), 131-137.

7. K.P. Nair (2020). Introduction. In: The Geography of Black Pepper (*Piper nigrum*). *Springer*.

8. M. Al-Khusaibi & M. S. Rahman (2019). Traditional Foods Overview. In: Traditional Foods History, Preparation, Processing and Safety, *Springer*.

9. <https://cardamomassociation.com/report/cardamom/>



Turmeric

The Golden Spice

Kurkum, Uqdah Şafra / كركم، عثدة صفراء – Kurkuma



Turmeric

Away from royalty, turmeric is one of the most traded products that shined on its own from India to the world 4,000 years ago as the "golden spice". Marco Polo referred to it as the "Indian saffron" in his travel diary, and in the 13th century, Arabs traded turmeric from India to Europe.^{1,2,3} Its name originated from the French *terre-mérite* which means meritorious earth, maybe due to its resemblance to mineral pigments.⁴

Initially, turmeric was utilized by Indians for its vibrant yellow color, serving as a dye. During the Middle Ages, it also found application as a natural dye for Islamic textiles.^{5,6} Additionally, it was utilised as a traditional medicine in Arabic cultures.⁷

In the early 20th century, Germany recognized the medicinal properties of turmeric, using it in the treatment of digestive disorders and arthritis.^{1,8} With Germany's focus on health-conscious practices, it currently leads as the largest consumer of natural colorants in Europe. Germany ranks as the third-largest importer of turmeric, an antioxidant and anti-cancer agent, in the continent, with import levels continuing to rise.^{5,9,10} Notably, the code "E 100" on food packaging, including sweets, cereals, and sauces, indicates the presence of turmeric.³ While Middle Eastern countries are significant importers of turmeric as well,¹¹ interesting dishes and spice blends containing turmeric from German and Arab cultures are demonstrated here.

Spice up your wor(l)d!



DOWN

1. A German dish with cardamom
2. The queen of spices

ACROSS

3. Man can live without gold, but not without...
4. Turmeric in Arabic
5. The king who received spices as present from the queen of Sheba

Häwayig / خراييج

Mediterranean Lentil Soup



Currywurst

1. I.F.F. Benzie & S. Wachtel-Galor (2011). Herbal Medicine: Biomedical and Clinical Aspects, Taylor & Francis Group.
2. FAO/WHO (2021). Proposal for New Work on a Codex Standard for Turmeric, CAC.
3. K.P. Nair (2019). Turmeric (*Curcuma longa* L.) and Ginger (*Zingiber officinale* Rosc.) - World's Invaluable Medicinal Spices, Springer.
4. http://gernot-katzers-spice-pages.com/engl/Curc_lon.html
5. T. Bechtold, R. Mussal, (2009). Handbook of Natural Colorants, Wiley.
6. H. Ahmed et al. (2005). Studies on dyeing with cochineal and ageing of silk dyed fabric, 1st Annual Conference AHRC, Research Center for Textile Conservation and Textile Studies, London, 2005, pp. 246–250.
7. B.E.V. van Wyk & M. Wink (2013). Phytomedicines, Herbal Drugs, and Poisons, The University of Chicago Press.
8. D. Bhowmik et al. (2009). Turmeric: A Herbal and Traditional Medicine. Arch. Appl. Sci. Res., 1(2), 86-108.
9. <https://www.cbi.eu/market-information/natural-ingredients-health-products/turmeric/market-potential>
10. K.V. Peter (2012). Handbook of Herbs and Spices, Woodhead Publishing Ltd.
11. J. Lal (2012). Turmeric, Curcumin and Our Life, Bull. Env. Pharmacol. Life Sci., 1, 11-17.



Cinnamon & the Bird Nest...

Qirfa / قرفة - Zimt

Cinnamon, one of the most valuable commodities since the early days of the spice trade, originates from the heart of the main producer, Sri Lanka. It is obtained from the bark of evergreen trees.¹

Cinnamon's history is as rich as its taste. Pharaohs of Egypt dispatched expeditions in search of it and Spaniards crossed the seas in pursuit of it and gold. It became a staple in medieval kitchens after Crusaders brought it in large quantities back from the Holy Land.² The native origin of the name is unknown, but it is believed that the Greeks adopted the word cinnamon from a Semitic language kinanom and qunimum.³



Zimtsterne



Maḍrūba / مضروبة

Cinnamon is widely used in European culinary traditions, including Germany, where it is incorporated into both sweet and savory recipes, particularly during the winter months such as *Zimtsterne*.⁴ While Saudi Arabia and United Arab Emirates are major cinnamon importers,⁵ it is also a popular spice in Moroccan and Middle Eastern cuisines, found in dishes such as stews, lamb and chicken tagines like *baṣṭīla* (بسطيلة), and Qatar's *maḍrūba* (مضروبة). Cinnamon is an ingredient in spice blends like the Middle Eastern seven spice blend.

An Interesting fact is that cassia, the Indonesian native and Chinese cultivated spice, is commonly used instead of the true cinnamon. Fortunately, both cinnamon and cassia share the same health benefit such as stabilizing blood sugar and providing relief from respiratory issues, cramps, and gastrointestinal upsets. Cinnamon extracts have also been used in treating infections such as candida.^{1,6,7}



Legend

Arab traders created legends about the cinnamon-bird (cinnamologus) around 2,500 years ago to hide the origin of cinnamon. These stories described a bird that built its nest using exquisite cinnamon sticks. Traders would collect fallen cinnamon when the birds flew down from their nests to grab meat baits, causing the nests to collapse. The famous cinnamologus, as fascinating as the story seems, never existed.⁸

TAKEAWAY NOTES⁶

True Ceylon cinnamon



- One-direction-rolled
- Quills from end to end
- Lighter-colored
- Best quality

Regular Cassia cinnamon



- Rolled inward towards the center
- Quills from opposite ends
- Darker, reddish
- Stronger flavor
- Lower price

1. P. Lakshmi (2016). The Encyclopedia of Herbs and Spices, Harper Collins Publishers, New York.

2. T. Hill (2004). The Spice Lover's Guide to Herbs and Spices. Wiley.

3. http://germat-katzers-spice-pages.com/engl/Cinn_zey.html#etym

4. <https://www.cbi.eu/market-information/spices-herbs/cinnamon>

5. A.B. Sharangi et al. (2018). Unexploited Spice Crops. AAP, 1st ed.

6. P. Ranasinghe et al. (2012). Effects of Ceylon Cinnamon, *Pharmacognosy Res.*, vol. 4, pp. 73-79.

7. L. Herman. (2015). Herb & Spice Companion: The Complete Guide to Over 100 Herbs & Spices, Wellfleet Press.

8. <https://www.bbc.com/future/bespoke/made-on-earth/the-flavours-that-shaped-the-world/>



England

Peppermint



Southern & Western Europe

Chamomile

VENICE, ITALY



Mediterranean



Parsley



Thyme



West Asia

Basil

ALEXANDRIA, EGYPT



HORMUZ, IRAN



India

Turmeric

CALICUT (KOZHIKODE), INDIA



Southern India

Black Pepper

MUZIRIS, INDIA



Sri Lanka & Southern India

Cardamom



Sri Lanka

Cinnamon

MALACCA, (MELAKA), MALAYSIA



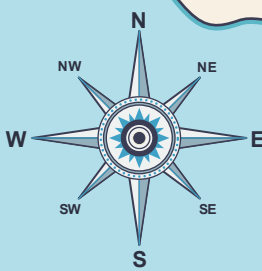
Indonesia

Nutmeg

ATLANTIC OCEAN

PACIFIC OCEAN

INDIAN OCEAN



-  SILK ROAD
-  SPICE ROUTE
-  SEAPORT





Nutmeg & the Musk Scent

Gauzat at-Tib / جوزة الطيب – Muskatnuss, Muskat

Get ready to embark on a sensory journey with the delicious and versatile nutmeg! Our tour begins on the Spice Islands of Indonesia, specifically the Moluccas, where the seed of a tropical tree's fruit was discovered, giving birth to the powerful spice we know today as nutmeg.¹

The Latin name for nutmeg is *nux muscatus*, derived from the term "musky nut" due to the similarity with the musk scent obtained from the glands of the native male musk deer in the Himalayas. Scent also accompanies the Arabic name *gauzat at-tib* (الطيب (جوزة)), meaning "fragrant nut".²

Nowadays, nutmeg cultivation is found in Sri Lanka, Malaysia, the West Indies,³ and particularly in Grenada, considered the main nutmeg-producing country,² reserving it a place on its flag. Nutmeg was used by Arabs for centuries to treat digestive disorders, toothache, and mouth sores. Nutmeg's essential oil contains antioxidants and anti-inflammatory elements, offering a gentle relaxing effect that can aid with anxiety and sleeplessness.¹



The flag of Grenada

In the culinary world, nutmeg adds that extra spirit of flavor to a wide range of dishes, from savory delights like meaty stews, pasta sauces, and vegetable purees to sweet treats, taking them to the next level.¹ It is also a key ingredient in spice blends such as *Somalian bariis iskukaris* and Moroccan *ra's al-hānūt* (رأس الحانوت). German cuisine also embraces nutmeg, incorporating it into dishes like *Kartoffelsuppe* and *Semmelknödel*.

Kartoffelsuppe



Ra's al-Hānūt / رأس الحانوت



Semmelknödel

Story

In the 15th century, nutmeg became a significant catalyst for the global spice race, with Turkish and Viennese traders initially using overland routes to import it from the Moluccas. This prompted the search for a sea route to the renowned spice plantations in the Indonesian archipelago. Governments supported explorer traders in an effort to break the spice monopoly, leading to the Portuguese and Spaniards discovering a southern route through the newly founded port of Malacca (modern Singapore).⁴



Nutmeg

SUPERPOWERS?

Certain European groups believed that a mixture of nutmeg, saffron, and hot pepper taken within the moon could prevent death. Nutmeg gained recognition in Europe as both a spice and a cure by the 16th century, and it was even regarded as an aphrodisiac.³



1. L.Herman. (2015). *Herb & Spice Companion: The Complete Guide to Over 100 Herbs & Spices*, *Wellfleet Press*.
2. http://gernot-katzers-spice-pages.com/engl/Myri_fra.html#etym
3. P. Lakshmi (2016). *The Encyclopedia of Herbs and Spices*, *Harper Collins Publishers, New York*.
4. T. Hill (2004). *The Spice Lover's Guide to Herbs and Spices*, *Wiley*.

Parsley

& the Gates of Heaven

Baqdūnis / بقدونس – Petersilie



Parsley

Straight away, it's time to unlock the second power of nature by discovering the magnificent potential of herbs for yourself!

Parsley is an ancient herb that originated from the Mediterranean region around the 3rd century BCE.¹ It exists in two forms: ordinary and crispate, with the latter named after its shape. The Greek name *petroselinon* means "rock celery" and reflects its growth on rocky hillside in Greece.^{2,3} In Arabic, parsley is called *al-baqdūnis* (البقدونس) or *al-maqdūnis* (المقدونس) in Moroccan Arabic, possibly derived from the Turkish name "maydanoz" during the era of the Ottoman Empire or the word "magydaris".²

Parsley in German and Middle Eastern Cuisine

Waraq 'Inab / ورق عنب



Schwäbische Maultaschen



Tabbūla / تبولة



Kufta / كفتة



Bāba Gannūg / بابا غنوج



Mujabbaq Samak / مطبق سمك

Parsley has various historical legends associated with it. Ancient Romans used parsley to deodorize the body and mask the smell of wine on the breath. In France, parsley became associated with Apostle Peter and was considered a guardian of the gates of heaven.¹ According to German and American lore, if parsley does not grow in the yard, someone in the home will die shortly.⁴

Around 1,500 CE, parsley varieties with thicker and edible taproots emerged in Northern Germany.² Nowadays, parsley cultivation is mainly concentrated in Northern and Eastern Europe and in North America. It is also commonly grown in Turkey.¹ Parsley can be found in several dishes from both German and Middle Eastern cuisines.

Before its culinary use, parsley was traditionally known for its medicinal benefits, such as its anti-inflammatory properties and its potential as a treatment for diabetes, hypertension, cardiac and renal diseases, as well as gastrointestinal disorders. It was cultivated and used as a medicinal herb in countries like Morocco, Tunisia, and other non-Arabic African countries.¹

ONE FOOT IN THE GRAVE

An euphemism for the sentence "De'eis thai selinon" or "to need only parsley". In Greek mythology, it was believed to have been generated by Archemorous, the precursor of death, when it first blossomed in his blood.⁵ The ancient Greeks considered parsley both, holy and bad, using it as a strengthening plant for warriors' horses and as crowns for sports games' winners, as well as in funeral wreaths.¹



1. C. Agyare et al. (2017), Chapter 25 - Petroselinum Crispum: a Review, In: Medicinal Spices and Vegetables from Africa, Academic Press.
 2. http://gernot-katzers-spice-pages.com/engl/Petr_cri.html#etym
 3. P. Lakshmi (2016). The Encyclopedia of Herbs and Spices, Harper Collins Publishers, New York.
 4. <https://www.nourishingdeath.wordpress.com/2013/12/30/parsley-the-herb-of-death/>
 5. <https://www.myspicer.com/history-of-parsley/>



Mint

& the Passion Myth

Na'nā' / نناع - Minze

The mint family includes various types of plants, with spearmint and peppermint being the most well-known. Spearmint is ancient and mentioned in the Bible, primarily used in the kitchen. Peppermint appeared in the 17th century and is believed to be a cross between water mint and spearmint, mainly used in traditional medicine.¹

In ancient times, around 1,550 BCE, mint was known for its digestive and flatulence treatment properties, as documented in the ancient Egyptian Ebers Papyrus. The pleasant perfume of mint was employed in burial ceremonies and as a body scent in ancient Greece and Rome. It was even used as a contraceptive agent.² In the 18th century, peppermint became common in Western Europe.³ Today, mint is cultivated in Asia, Europe, and North America, particularly for pharmaceutical purposes.^{3,4} Germany is a significant consumer of mint on a large scale.⁵ Its key functions as an analgesic, antispasmodic, and antibacterial in the presence of digestive discomforts, infections, and their related headaches have been traditionally relied on.³ Following clove, peppermint ranks as the second-highest antioxidant among all herbs!⁶



Fresh mint tea



The passionate myth of mint

In Greek mythology, the god of the underworld Hades fell in love with a girl named Minthe. His wife, Persephone, took her revenge by transforming Minthe into a ground-clutching plant so that anyone can step on. Hades consoled her with an appreciated feature in sweetening the air after his failure in transforming her back. This is the legend which the term "mint" is derived from!⁷ Returning to reality, England is the origin of peppermint where an accidental hybridization occurred.⁴

Minthe



Hades & Persephone

In various cuisines, mint plays a significant role. Mixing fresh or dried mint with cheese and yogurt is among the very common practices in Middle Eastern cuisines.⁷ Mint green tea is prevalent in Moroccan households and mint tea is also popular in Germany.^{1,8} Besides food, mint is known worldwide as a symbol of freshness as it is used in breath-refreshing chewing gum and candies, toothpaste, and mouthwash.²

1. P. Lakshmi (2016). The Encyclopedia of Herbs and Spices, Harper Collins Publishers, New York.
2. <https://www.civilwarmed.org/mint/>
3. A. Chevallier (2016), Encyclopedia of Herbal Medicine, Dorling Kinderley Ltd.
4. http://gernot-katzers-spice-pages.com/engl/Ment_pip.html#etym
5. <https://www.cbi.eu/market-information/fresh-fruit-vegetables/fresh-herbs/market-potential>
6. I.F.F. Benzie & S. Wachtel-Galor (2011). Herbal Medicine: Biomedical and Clinical Aspects, Taylor & Francis Group.
7. T.Hill (2004). The Spice Lover's Guide to Herbs and Spices, Wiley.
8. U. Heinzelmann (2008). Food Culture in Germany, Greenwood Press.



Basil

Loyalty & Love

Habaq, Raihān / حبق, ريحان - Basilikum, Basilienkraut

In old stories, it was said that Italian women attracted men by growing basil on their windows, while men gave basil sprigs to ladies as a symbol of loyalty.¹

Basil is one of the most commonly consumed fresh herbs in Europe.² Its origin is debated, whether it is native to India or West Asia, but documentation dating back 3,000 years was found in Egypt.

Currently, it is cultivated in Mediterranean and Asian regions, with Morocco and Egypt being among the leading exporters to Europe. The Greek term "basileus", meaning "king", gave rise to the name basil due to its royal fragrance. In Arabic, basil has two names: *habaq* (حبق), which is less common, and *al-raihān* (الريحان), derived from the Arabic word "riḥa" meaning "odor".³

A very popular Lebanese proverb (اللي سبق شم الحبق), literally translated to "who arrives first smells the basil", symbolizes that early birds get the worm first. In Lebanon, basil is the best reward one can get!



TRADITIONAL POWERHOUSE

HEALTH BENEFITS⁴⁻⁸

- 1 • Stress & anxiety reliever
- 2 • Antispasmodic & cardiac health improver
- 3 • Poison defender (African notion)
- 4 • Antibacterial, intestinal worm killer, and upper respiratory tract infections remedy
- 5 • Diuretic & breast milk production booster (Romans)
- 6 • Insect bites reliever (Romans)
- 7 • Fever, spasms & ulcers remedy (Arabs)

1. T.Hill (2004). The Spice Lover's Guide to Herbs and Spices. Wiley.
 2. <https://www.cbi.eu/market-information/fresh-fruit-vegetables/fresh-herbs/market-potential>
 3. http://gernot-katzers-spice-pages.com/engl/Ocim_bas.html
 4. L.Herman. (2015). Herb & Spice Companion: The Complete Guide to Over 100 Herbs & Spices, Wellfleet Press.
 5. A. Chevallier (2016). Encyclopedia of Herbal Medicine, Dorling Kinderley Ltd.
 6. D.W. Al Abbasy et al. (2015). Chemical composition and antibacterial activity of essential oil isolated from Omani basil (*Ocimum basilicum* Linn.), *Asian Pac. J. Trop. Dis.*, 5(8), 645-649.
 7. M.S. Abdel-Kaderet et al. (2018). A survey on traditional plants used in Al Khobah village, *Saudi Pharm. J.*, 26(6), 817-821.
 8. S.A. Thoker & S. Patel (2020). Role of traditional Islamic and Arabic plants in treatment of fever, *Trop. Plant Res.*, 7(1):144-148.



Thyme

The Evergreen

Za'tar / زعتر – Thymian

Thyme, a remarkable herb with a rich history, originates from the Mediterranean region and has been revered since ancient times by cultures such as the Egyptians and Romans. The herb holds significant symbolism, representing courage, strength, magic, and elegance.¹ The term "thyme" itself originates from the Greek word "thymos", which signifies a physical association with breath or blood, symbolizing its vital essence and potency.⁵ Additionally, "thymos" is also used to express the human desire for recognition, underscoring the herb's significance and reverence in various societies.

Thyme has held a significant role in both German and Arab cultures, contributing to its lasting value. This is evident in the vivid portrayal of strength and courage in the Lebanese and Palestinian song "Hands of Thyme and Stone," which further solidifies thyme's significance in regional traditions.² Additionally, the herb's profound connection to the region's history is showcased in the anthology of Palestinian short stories titled "A Land of Stone and Thyme", underscoring its importance in the cultural narrative.⁶ Furthermore, in Germany, thyme served not only as a fumigator for apple trees but also as a believed protector against witchcraft, highlighting its diverse cultural importance.^{3,4}

Thyme's utilisation extends beyond its symbolism and cultural relevance, as it provides various culinary, medicinal, and cosmetic applications. As an antibacterial and antioxidant herb native to the Mediterranean region, thyme's leaves and oil offer a plethora of benefits. For instance, its oil can be employed for flavoring, deodorizing, and healing purposes, including relief from conditions like whooping cough and bronchitis.^{7,8} In the Arab region, the renowned thyme mixture called *za'tar* (زعتر) is a testament to thyme's culinary importance and cultural significance.¹⁰ Moreover, thyme aids in enhancing nutrient digestibility, and the application of thyme oil to perishable food, such as meat and dairy products, can extend their shelf life.^{7,11}

The popularity of thyme extends beyond the Mediterranean region, as it is extensively used in the Gulf, particularly in Saudi Arabia.¹² Major thyme suppliers in the Mediterranean region include Morocco, Egypt, and Syria, underscoring its economic significance.¹³ Thyme is used in *manāqīš za'tar* (مناقيش زعتر) and traditional German dishes like *Zitronenbutter mit Thymian*.



IN CONCLUSION

Thyme stands as a testament to the interwoven cultural and historical tapestry of the Mediterranean region. Its origins in ancient civilizations, its symbolic association with breath or blood, and its multifaceted applications in various aspects of life have solidified its position as a magnificent herb cherished by diverse cultures across time.

1. D.J. Charles (2013). Antioxidant Properties of Spices, Herbs and Other Sources, Springer.
2. <https://cultureforarabfood.wordpress.com/15/11/2017/time-for-thyme/>
3. M. Baker (1996). Discovering The Folklore of Plants, *Shire Classics*.
4. C. Oakley Harrington (2023). The Treadwell's Book of Plant Magic, *Treadwells Books*.
5. http://gernot-katzers-spice-pages.com/engl/Thym_vul.html
6. N. Elmessiri & A.M. Elmessiri (1996). A Land of Stone and Thyme: Anthology of Palestinian Short Stories, *Quartet Books Ltd*.
7. M. Al-Khusaibi & M. S. Rahman (2019). Traditional Foods Overview. In: Traditional Foods History, Preparation, Processing and Safety, Springer.
8. J. Novak, W. Blüthner (2020). Medicinal, Aromatic and Stimulant Plants, Springer
9. K.V. Peter (2012). Handbook of Herbs and Spices, *Woodhead Publishing Ltd*.
10. R. Ahmad et al. (2020). Quality variation and standardization of black pepper (*Piper nigrum*): A comparative geographical evaluation based on instrumental and metabolomics analysis, *Biomed. Chromatogr*, vol. 34, no. 3.
11. B. Salehi et al. (2018). ThymoL, thyme, and other plant sources: Health and potential uses, *Phytother. Res.*, 32(9), 1688-1706.
12. V. Anishechenkova (2020). Modern Saudi Arabia, *Bloombury Publishing*.
13. <https://www.cbi.eu/market-information/spices-herbs/thyme/market-potential>





Chamomile

The Bedtime Superstar

Bābūnaġ / بابونج - Kamille

Last but not least, another treasure of the oldest herbs in the world is the chamomile which is known as German chamomile.¹ It is the Swiss army knife of plants - it can do it all! This versatile herb was a favorite of both Arab and German cultures for centuries. Not surprising to know that Germany is among the major suppliers being an important German chamomile grower.²



Chamomile

German chamomile



Chamomile tea



Pharmaceutical products

Both Arab and German cultures have their own unique belief about chamomile like symbolizing patience and adversity and integrating it into their arts.⁴ An ancient Arab poem by Tarafa ibn al-'Abd is an example of using chamomile to convey the poet's deep expression about teeth description.⁵

Chamomile was used in another Arab poem: "Her glimmering mouth like a chamomile flower", poets like Dū ar-Rumma used chamomile and other flowers to symbolize beauty and purity.⁶

Chamomile is renowned as a bedtime superstar. Just brewing a cup of chamomile tea will melt the stress away.¹ Throughout human life, chamomile is always ready to serve! Its gentleness allowed its use for babies like treating diaper rash, alleviating teething pain, and being a component of haircare products.^{1,3} It is a saviour for painful menstruation.² It is also a great digestive relaxant and bath additive, in addition to its traditional use as an anti-inflammatory and antioxidant agent, for burns, ulcers, eye infections, and many other conditions.¹ Besides its pharmaceutical properties, chamomile has found its way into the cosmetic and perfumery industries.²

Tarafa ibn al-'Abd says'

تخلل حور الورد دعص له	وتبسم عن ألمي كأن منورا
<i>From a deep red mouth she smiles, a chamomile blossom</i>	<i>drew-moistened breaking through a crest of pure sand</i>

1. J. Srivastava et al. (2010). Chamomile: A herbal medicine of the past with a bright future (Review). *Mol. Med. Rep.*, 3(6), 895-901.
 2. O. Singh et al. (2011). Chamomile (*Matricaria chamomilla* L.): An overview, *Pharmacogn. Rev.*, 9(5), 82-95.
 3. S. Sharafzadeh & O. Alizadeh (2011). German and Roman Chamomile, *J. Appl. Pharm. Sci.*, 1, 1-5.
 4. S.M. Ross (2009). The Garden of Serenity: The Soothing Scents of Aromatic Plants, *Holist. Nurs. Pract.*, 23(2), 124-126.
 5. Y.S.H. Dahami (2018). Tarafah ibn Al-'Abd and his Outstanding Arabic Mu'allagah, *Int. J. English Lit. Soc. Sci.*, 3, 939-947.
 6. H.A.S. Mahmud (2012). Classical Arab Poetic Convention by the Umayyad Period: a Psychological Study of Imagination, *Asian Afr. Stud.*, 21, 35-69.
 7. M.A. Setts (1986). The Mu'allaga of Tarafa, *J. Arab. Lit.* 17, 21-33.





LUISE FISCHER, PhD
AGYA Member

Postdoctoral Social Scientist & Academic Teacher
Leipzig University, Germany



NADA EL DARRA, PhD
AGYA Member

Associate Professor Food Safety & Technology
Beirut Arab University, Lebanon



SHADI ALBARQOUNI, PhD
AGYA Steering Committee Member
Professor Computational Imaging
University Hospital Bonn | Helmholtz AI, Germany



MANAR AL AYOUBI, MSc
Research Assistant

Food Safety & Technology
Beirut Arab University, Lebanon



HIBA N. RAJHA, PhD
AGYA Member

Assistant Professor of Process Engineering
Saint Joseph University of Beirut, Lebanon

ACKNOWLEDGMENTS

We would like to extend our sincere appreciation to the talented designer **HANINE ABED AL KHALEK** and the entire AGYA office, namely **SABINE DORPMÜLLER, HENRY WICHURA, SEBASTIAN FÄTH, VIKTORIA FINK AND BENJAMIN THIÈRE**, for their invaluable feedback, which greatly contributed to the success of our project. The AGYA Djinn is a design by **ALBERTUS TYASSETA**.

AGYA Office Berlin

The Arab-German Young Academy
of Sciences and Humanities (AGYA)
at the Berlin-Brandenburg Academy of Sciences
and Humanities (BBAW)
Jägerstr. 22–23
10117 Berlin, Germany
+49 30 20 370-281
agya@bbaw.de

Regional Coordinator for the Levant

Dr. Jean El Achkar
Beirut, Lebanon
+961 70 789-253
jean.elachkar@agya.info



agya.info