

Saudi Arabia

For centuries, the people of the Arabian Peninsula had only limited resources with which to improve their quality of life. The beduin used camel and goat hair for blankets and tents, camel dung for fuel, camel milk for sustenance, sand for bathing, and desert lizards as a delicacy. Town dwellers along the coasts used mud and date palm wood for buildings, palm fronds for roofs and baskets, and the date fruit for nourishment. When local resources could not meet a need, the long established practice of trade and bartering provided relief and satisfaction. Within this context, a rich heritage of folk medicine developed and thrived.

Historical Background

The South (Al-Janoub)

The Western Province (Al-Hijaz)

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The South (al-Janoub)

The major cities of the South today include Najran and Abha. This has long been an area of settlers and nomads. The settlers' lifestyle was based on agriculture in this unique region of Saudi Arabia which has the Asir mountain range, permanent springs, and green meadows. Nomads depended on their camels, sheep, and other livestock for their living and wandered about in search of grass and water.

From ancient times, southern Arabia formed part of the overland route linking the trade of luxury goods (spices, aromatics, silk) from India, Yemen, China and East Africa with the Mediterranean. Najran was a natural stopover along this famed frankincense trail. The trade route through Najran, and up western Arabia to the Mediterranean, is thought to have been in operation by the eighth century BC. Another route, from Najran to Wadi Dawasir and across the southern edge of the Nejd, was in place by the fourth century and targeted trade with Eastern Arabia and Iraq.

One of the most prosperous times of trade along this overland commercial route was from 30 BC to around AD 200, when the Roman Empire consumed large quantities of frankincense. However, the decline of the Roman Empire dealt an economic blow to established communities along the trade route, forcing inhabitants to be more self-sufficient than ever.

Traditional living in this area includes the use of clay for pots, mud for cleaning (later replaced by soap), and the oil and leaves of plants for perfume. Herbs and aromatics grow in abundance, the most common being basil, barda Qoosh (marjoram), Ba'tharan, roses, and Kadi. Herbs found and burnt for incense include Al-Mistikah (Arabian Gum), Al-Mahlab (Prunus Mahaleb), and musk. Herbs and grains used for medicine include myrrh, asafetida, aniseed, black caraway (black seed), fenugreek, coffee, and spices.

The Western Province (al-Hijaz)

The Hijaz, or Western Province area, lies on the shores of the Red Sea. Its principal cities are Jeddah and Yanbu. Both these cities began as tiny fishing settlements (Jeddah about

2500 years ago). They both lie along the historic frankincense route and have thus welcomed travelers for thousands of years. More than any other part of the Kingdom, the Hijaz has been exposed to influences from outside the Peninsula. Pilgrims either arrived by ship on their journey to Makkah and Medina or as part of caravans from Baghdad, Cairo and Damascus. When the Suez Canal opened in 1869, Jeddah, for the 19th century and beyond, became a major trading port between the Mediterranean and the Indian and Pacific Oceans. Yanbu is also a major port, in fact the largest, on the Red Sea coast. Because of location, residents of the Hijaz have enjoyed influence and trade with other countries and cultures, resulting, especially in Jeddah, in a more open, multicultural society.

The Central Area (al-Najd)

Most of Central Arabia is a limestone plateau. It is bounded by the deserts of the Nafud to the North and the Rub Al Khali to the south. To the east are mountains which run the length of western Arabia, separating the Najd from the Red Sea. To the west, long sand ridges of the Dahna create a barrier to the Arabian Gulf coast. Riyadh, the modern capital of Arabia, is situated in the east part of Najd.

From the third millennium B.C., tribal societies and nomads in this area have adapted to some of the harshest living conditions on earth and have been amazingly self-sufficient. However, drought and disease have been common themes. Farming depended on irrigation from ground water sources and wells dug down to the water table. The date palm, with its high salt tolerance, adapted well to Najdi soil and has long provided a staple source of food for man and beast, fuel, and building material. In times of sufficient moisture and plenty, other common crops included wheat, barley, millet, and alfalfa.

Positioned between al-Hassa and Mecca, settlements of the Najd received travellers journeying along the path of the ancient overland trade route. Later in history, influence from the outside world came from Muslim conquests of North Africa, Spain, and Italy. With this influence came the introduction of new fruits and vegetables such as oranges, apricots, peaches, aubergines, and watermelons, providing increased variation in diet. When the British explorer, Harry St. John Philby visited the Najd in the early 20th century, he noted the widespread cultivation of date and tamarisk trees, onions, beans, okra, cotton bushes, grapes, figs, apricots, peaches, pomegranates, a small apple, melons, lemons, and garlic. In addition, herbs and spices grown included fenugreek, peppergrass, cumin, coriander, and safflower. Naturally, these crops were grown only in the more fertile area of oases and not in the more arid desert areas forming most of the Najd.

The North (al-Shamal)

Saudi Arabia borders Iraq, Kuwait, and Jordan in the north. Al-Jawf, Hail, Tabuk, Tayma and Dedan are some of the better-known cities of North Arabia. Tayma and Dedan, both in the north-west, were well established by the sixth century BC. A succession of rulers controlled this northern end of the caravan trade route. The Nabataeans, who built their capital at Petra and also had outposts at Madain Al Saleh, are the most celebrated. The Nabataeans enjoyed a monopoly of North Arabia from the third century BC – AD 106.

Islam was established in the seventh century AD. For Muslim pilgrims traveling from Damascus to Mecca, Tabuk was a natural stopping point. In more modern times, the Ottoman Empire dominated the area from the 17th through the early 20th century. Visitors today would describe much of the North, in general, as bleak and sparse. However, Hail is

now a center of vast agricultural programs and most of the country's wheat crop is grown here.

The Eastern Province (al-Sharq)

Most of the Eastern Province is a low-lying limestone plateau. It is hot and dry inland and hot and humid along the coast. There is very little natural vegetation in the sandy desert area. However, in the center of the Eastern Province, the region of al-Hasa boasts one of the largest oases and date farming communities in the world, while Qatif is the biggest oasis on the shores of the Gulf.

Settlements in these areas date back 5000 years and more. Better known civilizations of the Eastern Province include Dilmun (around 750-600 BC) and the lost city-state of Gerra (c. 700 BC and early centuries AD). Although it is not known exactly where these cities were located, they were both thriving entities due to the overland trade passing through the area en route to Iraq either from overland routes or via the Arabian Gulf. As income from trade severely declined following the collapse of the Roman Empire around 200 AD, these areas lost their former position of wealth and control. However, agricultural settlements of Al-Hasa and Qatif continued to provide food for the local markets, while Qatif provided fish and pearls.

Key influences on the Eastern Province were its transition to Islam in the 7th century and the Ottoman occupation from 1871-1913. The Turks were finally ousted by Ibn Saud with the creation of the modern-day Kingdom of Saudi Arabia.

In 1936, oil was discovered in the Eastern Province and commercial production began in 1938. Today, the Eastern Province is the headquarters of Saudi Aramco, which controls 25% of the world's oil resources. Revenues from oil have been used wisely to diversify the Kingdom's industrial base. Today, Saudi Arabia produces chemicals, plastics, cement, fertilizer, and metals. Agriculturally, with irrigation projects which have reclaimed many acres of desert, grains, citrus fruits, vegetables, and dates, are grown.

The Unification of Saudi Arabia

While Islam was a unifying factor in the 7th century, the inhabitants of the Peninsula did not remain united and existed as a collection of diverse settled communities and nomadic tribes.

Modern Arabia owes its existence to Ibn Saud who in 1902 conquered the Nejd. From there, he gained control of Al Hasa and the Hejaz regions and in 1932 proclaimed himself king of a united Saudi Arabia. He ruled until his death in 1953 and has been succeeded by members of the royal family since then. Today, the official ruler is King Fahd.

The Impact of Islam

The Prophet Mohammad was born in Mecca around 570 AD. At around age 40, he received a revelation. He claims he received a record of scripture, the Holy Koran, from the Angel Gabriel. Within the Koran and in "hadiths," famous sayings of the Prophet, there are instructions to follow regarding health. For example, it is mentioned in the Koran that a woman going into labor should eat dates. Hence, it is a common practice in Arabia to this day. The Prophet Mohammad termed black caraway (black seed) as the "seed of blessings," stating that it was a cure for everything except death. Black seed also is used extensively to this day. It is difficult to know how widely used they were prior to Islam, but it is certain

that the teachings of the Koran and the Prophet played a significant role in formulating natural health remedies.

Traditionally...

This information is based on a survey conducted in-Kingdom in 2002.

Saudi families have used dates, black seed, frankincense, myrrh, fenugreek, henna, rocket, coffee, and pomegranate peelings to promote healing. Following are descriptions of the most interesting uses:

Arugula
Black Seed
Coffee
Dates
Fenugreek
Frankincense
Henna
Myrrh
Pomegranate

Arugula / Eruca sativa (Brassicaceae/Cruciferae)

Traditional Practice: Arugula, or rocket, is called "jarjeer" in Arabic. Its leaves are similar to spinach in appearance. An Egyptian saying declares that if a woman knew what jarjeer was good for, she would grow it under her bed. Saudis also believe that jarjeer is an aid to sex life. In addition, they use it in oil form as a treatment for hair loss. As an ointment, it is used for old burns. It is known to be high in iron and, therefore, an aid for general fatigue. Jarjeer, cooked with onion and strawberry leaves, then strained with gauze, is used to treat skin infections with pus.

Current Knowledge: Grieve (1971) describes jarjeer's principal medicinal action as anti-scorbutic. Nowadays, arugula is used chiefly in the kitchen. It has a strong, slightly peppery taste and is delightful mixed with other leafy greens.

Black Seed / Nigella sativa (Ranunculaceae)

Traditional Practice: The Prophet Mohammed is attributed as saying that black seed, which has a spicy pungent taste, is a cure for everything but death. In this research, Saudi families cited it as an aid for stomachaches, headaches, general fatigue, indigestion, heart trouble, colds, coughs, and insomnia. Black seed is used during childbirth and to strengthen a mother after childbirth. An infusion is given to babies. Black seeds are boiled to produce a vaginal douche. Combined with henna and vinegar, black seed is used externally on cuts and pus producing infections. Often black seed is mixed with honey when taken internally. For heart treatment, black seed is soaked in water and then drunk. For difficulty sleeping, a tablespoon of black seed is mixed with a cup of hot milk and sweetened with honey.

Current Knowledge: Nigella sativa is a small annual and a member of the

buttercup family. Although called *Nigella* or *Black Seed* in the Middle East, it is referred to as *Love in a Mist* or *Fennel Flower* in English.

Sweet Sunnah, a company in upstate New York dedicated to promoting the virtues of black seed, reports that black is a source of calcium, iron, sodium, and potassium.

Herbalist Dr. Michael Tierra has used black seed to treat upper respiratory conditions, allergies, coughs, colds, bronchitis, fevers, flu, asthma and emphysema. He suggests collecting the seeds from the pods and grinding them to a paste and mixing them with melted honey.

With the perspective of modern herbalists and such a long list of ailments benefited by black seed, it is amazing to reflect on the insight of Mohammad's 7th century comment that black seed is a remedy for everything but death.

Coffee / *Coffea Arabica* (Rubiaceae)

Traditional Practice: Drinking Arabic coffee, which is flavored with cardamom seed, is considered a solution for stomachache. Coffee bean peelings and Turkish coffee are used to strengthen a mother after childbirth. Arabic coffee (ground) is used to stop bleeding on external cuts or wounds.

Current Knowledge: The constituents of roasted coffee include oil, aromatic oil, wax, caffeine, tannic acid, caffe-tannic acid, gum, sugar, and protein. It is a brain stimulant, producing sleeplessness. In cases of snakebite, it helps to ward off a coma. It is a powerful diuretic, but loses its effectiveness with continued use (Grieve, 1971).

Dates/*Phoenix dactylifera* (Arecaceae)

Traditional Practice: Seven out of twelve families in the South mentioned using dates to aid childbirth. One of those responses said to "eat yellow or brown dates before delivery." A Central Area respondent said to start eating as many dates as possible upon feeling back pain in order to help ease delivery, while another said to eat 7 dates and drink hot cinnamon. In addition, dates are used to strengthen the mother following childbirth. Some additional uses of dates include wrapping date pits with a warm cloth and rubbing the baby's navel to help the umbilical cord to drop off. The date pit is also used to massage myrrh and kohl into the navel. Dates (in date water form) are used with butter to clean a baby's intestines. In addition, dates are considered treatments for general fatigue, indigestion, and cuts and burns (when mixed with a little salt).

Current Knowledge: W.H. Barrevel, in the 1993 *Bulletin of the Food and Agriculture Organization of the United Nations* entitled *Date Palm Products*, states that when dates are mature, they contain reasonable amounts of vitamins A, B1, B2 and niacin. Although there are no significant amounts of other vitamins, dates are a good source of potassium, calcium, and iron

and also contain chlorine, copper, magnesium, sulphur, and phosphorous.

Instructor Gepts at the University of California, Davis, documents the following in his Crop of the Day article, *The Date, Phoenix dactylifera* (2002):

The sugar content of ripe dates is about 80%; the remainder consists of protein, fat and mineral products including copper, sulphur, iron, magnesium and fluoric acid. Dates are high in fiber and an excellent source of potassium.

Five dates (approx. 45 grams) contain about 115 calories, nearly all from carbohydrates.

Bedouin Arabs, who eat them on a regular basis, show an extremely low incidence rate of cancer and heart disease.

(<http://agronomy.ucdavis.edu/gepts/pb143/CROP/Date/Date.htm>).

*Reese Dubin in his book *Miracle Food Cures from the Bible* (1999), states that dates have a laxative effect and can also relieve heartburn and acid in the gut. Finally, medical anthropologist Dr. John Heinerman states that ten dates yield 47 mg. of calcium, 50 mg. of phosphorous, 2.4 mg. of iron, 1 mg. sodium, 518 mg. potassium, 40 I.U. vitamin A, 1.8 mg. niacin, and very little vitamin C. Heinerman states that carbohydrate-rich food, such as the date, can induce sleep when consumed just prior to bedtime. He also mentions a possible benefit of using a puree of pitted dates externally on skin eruptions since dates have high sugar content and sugar has successfully been used as a folk remedy to treat open wounds and sores in many parts of the world. (Heinerman, 1994).*

It seems a reasonable conclusion, then, that the practice of eating nutrient-filled dates can help individuals with general fatigue and mothers striving to receive adequate vitamins and energy before, during, and after childbirth.

Fenugreek / Trigonella foenum-graecum (Leguminosae)

Traditional Practice: Fenugreek is called Helba in Arabic. The seeds are used to strengthen the back and return the uterus to its natural position. Fenugreek seeds are boiled and consumed to stimulate milk flow and strengthen the mother in general during and after childbirth. Fenugreek tea is given to babies. It is a treatment for headaches, stomachaches, general fatigue, and menstrual cramps. In addition, it has been used for infections on external cuts and wounds.

Current Knowledge: Fenugreek is mucilaginous, emollient, febrifuge, and restorative. The seeds swell into a thick paste when soaked. A poultice of fenugreek is a treatment for wounds and inflammations. For this purpose, it is most effective when combined with charcoal (Kloss, 1981).

Fenugreek tea is an effective gargle for sore throats. It helps clear mucous from bronchial passages and is good for fevers. Mrs. Grieve also notes that it has been used for diabetes (Grieve, 1971). Karima Burns, M.H., N.D.,

states that because fenugreek is very high in nutrients, it is often used "to lower blood cholesterol and provide strength to the body systems, particularly the heart, lungs and digestive system. (<http://www.islam-online.net/English/Science/2000/3/article2.shtml>).

Frankincense / *Boswellia carteri* (Burseraceae)

Traditional Practice: Saudis commonly use frankincense for coughs. The resin is soaked in water and the liquid drunk. It is also combined with a little cress and myrrh for the same purpose. Frankincense is also mentioned as an aid for diarrhea.

Current Knowledge: Frankincense is high in sesquiterpenes. It is stimulating to the mind and is an aid to overcoming stress. In addition, it helps the body fight against infection by increasing the activity of leukocytes (Essential Oils Desk Reference, 2001).

Mrs. Grieve (Grieve, 1971) documents the constituents of frankincense as follows: resins (65%), volatile oil (6%), water soluble gum (20%), bassorin (6-8%), and plant residue (2-4%). The resins contain boswellic acid and alibanoresin. Medicinally, it is a stimulant. Grieve mentioned its historic uses as an antidote to hemlock (Pliny) and a cure for tumors, ulcers, vomiting, dysentery and fevers (Avicenna). She also stated that it is used as a cure for leprosy in China.

Henna / *Lawsonia Inermis* (Lythraceae)

Traditional Practice: Henna, a perennial shrub with aromatic white or rose-colored flowers, is extremely popular in Arabia. Dye obtained from the leaves is widely used to decorate the hands and feet and to color the hair. Henna is put on the soft spot of a newborn's head and is also used to treat burns, headaches and hair loss. In addition, it is used with salt and cress for cuts and combined with black seed and vinegar for pus-producing infections.

Current Knowledge: Bob Lebling, in the Handbook of Arabian Medicinal Herbs (2002), states that the properties of henna are "astringent, antihemorrhagic, intestinal antineoplastic, cardio-inhibitor, hypotensive and sedative...Henna extracts show antibacterial, antifungal, and ultraviolet light screening activity."

Kloss (1981) sites its use for headaches and, in tea form, as a gargle for sore throat. Medical anthropologist John Heinerman has recommended the use of henna paste for herpetic lesions and sores afflicting AIDS patients. He reports good healing results (Heinerman, 1998). Active constituents include henna-tannic acid, mucilage, and oxynaphthoquinone.

Myrrh / *Commiphora myrrha* (Burseraceae)

Traditional Practice: Saudi families use myrrh in these ways:

To treat sore throats and coughs
To wash mothers following childbirth (myrrh combined with salt)
To strengthen mothers following childbirth
To treat/massage a new baby's navel, or if infected or cord isn't dropping off (myrrh oil)
To treat menstrual cramps, stomachaches, diarrhea, and indigestion
To treat burns (soaked myrrh)
To treat infections on external cuts and wounds (soaked myrrh)

Current Knowledge: Myrrh is an antiseptic, stimulant, tonic, expectorant, vulnerary, and emmenagogue. It is a valuable tonic for bronchial and lung diseases. Jethro Kloss (Kloss, 1981) cites it as a remedy for sores on the body and hemorrhoids as well as a treatment for coughs, asthma, tuberculosis and chest congestion. Myrrh diminishes mucus discharge.

Dr. James Duke states that myrrh stimulates the thyroid. However, he says the resins don't extract in hot water, so it is not useful in tea form (Foster and White, 2000). Lisa Murray-Doran, N.D., an instructor at the Canadian College of Naturopathic Medicine in Toronto, recommends dissolving a teaspoon of myrrh powder in a cup of water as an immediate wash for cuts to fight infection (Harrar and O'Donnell, 1999).

Rosemary Gladstar, Director of Sage Mountain Herbal Education Center in East Barre, Vermont, includes finely ground myrrh powder as an ingredient in a vaginal bolus (suppository) recipe for vaginal infection (Gladstar, 1993).

Dr. Jethro Kloss recommended 2 ounces of myrrh gum along with 1 ounce goldenseal and ½ ounce African red pepper, soaked in rubbing alcohol, to create his famed antiseptic Kloss Liniment, good for healing wounds, burns (including sunburn), bruises, and sprains.

Overall, current medical thought seems to confirm the traditional uses of myrrh in Saudi Arabia.

Pomegranate / Punica granatum (Punicaceae)

Traditional Practice: Powdered pomegranate peelings are used on burns and to treat infection on external cuts and wounds. Soaked pomegranate peelings are used for sore throats, stomachaches, and indigestion. To treat indigestion, pomegranate peelings are dried, then boiled, and the water drunk. Rosewater can be added for flavor. Pomegranate soaked in boiled water is used with honey for heart trouble.

Current Knowledge: One pomegranate contains 5 mg. calcium, 12 mg. phosphorous, 0.5 mg. iron, 5 mg. sodium, 399 mg. potassium, a trace of vitamin A, 6 mg. vitamin C and 2 mg. magnesium. Pomegranate juice is highly astringent. It is a treatment for bad breath, rotting teeth, hemorrhoids, and intestinal worms. Israeli physician Dr. Ben-David has stated that a person with a weak heart and unable to remain conscious much longer would benefit from a cup of fresh pomegranate juice. His estimation is that it would prevent a person from passing out (Heinerman,

1994). *Dr. Vasant Lad, Director of the Ayurvedic Institute in Albuquerque, New Mexico, prescribes pomegranate juice to relieve diarrhea* (Gottlieb, ed., 1995).