

Sudanese Traditional Recipes

By [professor Ahmad Al Safi](#)

Reproduced from Ahmad Al Safi. [Traditional Sudanese Medicine, a primer for health care providers, researchers and students](#) (1999)

The Sudanese *materia medica* contains a variety of *wasfas* (recipes, prescriptions) fulfilling therapeutic, nutritive, health-promoting, preventive and cosmetic functions. It includes plants, organic substances, minerals, salts, soils, waters, and various fluids. Some of these items are used for food, others for treating and preventing diseases, or maintaining general health. It also includes toxic and poisonous plants and minerals that are the active agents in muscle relaxants, central nervous system stimulants, cardiac depressants, narcotic, or oxytocic and abortifacient preparations.

The recipes usually consist of different proportions of plants, animal products and excreta, minerals, salts, and metals, among other things. The animal products include meat, fat, milk, as well as bile, urine, dung, and special substances such as powdered rhinoceros tusk, ostrich oil, or bees' honey.

The healing methods they have identified include the use of purges, emetics, astringents, skin emollients, diuretics, lactogenics,¹ analgesics, spasmolytics, and tonic medicines. They also include oxytocic, abortifacient, and contraceptive agents as well as sedatives, narcotics, muscle relaxants, and plants extracts that induce convulsions; all have been used as poisons for human beings, animals, and fish.

Plants make up the bulk of the Sudanese *materia medica*. Out of a collection of more than 565 items that appear in Chapter 5: *A Sudanese Materia Medica*, only 15% are minerals, salts, soils, or items of animal origin; the rest are plants.

The *materia medica* plays its part in a variety of domestic contingencies. Women use poisonous plants to captivate flirty spouses, to commit infanticide, or to induce abortion. Some tribes smear arrows, lances and spear heads with extracts of poisonous plants. They use these poisoned weapons either to incapacitate victims so that they may conveniently be robbed or captured, or to kill them outright.

Some recipes are as simple and ubiquitous as a single sip of sesame oil; others are complex. In addition, the ways the healers mix plants with mineral substances or organic matter are also complicated. The recipes frequently contain more than one ingredient that the healers or the families keep secret and maintain as cherished knowledge that is passed from one generation to the next. When a healer dispensed a purgative, for example, that proved to be drastically fatal, the poisonous ingredients often escaped detection even by modern laboratories' testing. All that could be done to prove the poisonous nature of the remaining sample, if any, is to feed some of it to experimental animals.

Forms and efficacy

At this point, we review the basic lay beliefs that underlie the choice of medicinal formulation, dosage, and intake. We also examine what people look for in a medicine, how they measure potency, and how they interpret side effects.

Claridge² noted the complex interaction of factors in drug action and called it the 'total drug effect'. The factors include:

- Pharmacological properties.
- Drug attributes (taste, shape, colour, name, etc.).
- Patients' attributes (experience, education, personality, sociocultural background).
- Attributes of the person prescribing, or dispensing the drug (personality, professional status or sense of authority), and
- The setting in which the drug is administered (a doctor's laboratory or social occasion).

We will take advantage of these categories and provide a few examples from the Sudanese practice of traditional medicine.

Medicines are like diseases in the lay mind; they have meanings and are associated with personal and social experiences. The way a medicine is taken is culture-specific, and is associated with a variety of personal and social habits and customs, and, most importantly, with rituals that should be strictly performed. The timing of the dosage, the measures they use, and the incantations that accompany their intake, are important for the medicine to work effectively. A medicine may be prescribed to be taken only at sunrise or at sunset,³ and when the dosage is fixed, the number of sips, mouthfuls or pellets are usually related to arbitrary magical numbers (see Chapter 3).

Recipes have been prepared in different ways, have come in a variety of formulations, and (with the exception of the injection) have been given through all other known routes. Some recipes have been prepared as potions, macerates, or decoctions. Some are presented as powders, sachets, or pills. Some have been given as gargles, or applied to the skin as ointments and poultices. Some have been inserted in the back passage as suppositories, introduced as enemas, infused into the urethra, inhaled, or used as electuary. Others have been administered as washes for the nose and the ear, or as collyria (eye lotions). Sometimes a plant has been sucked, chewed, or burned as incense.

People believe that the severer the impact of a medicinal item on body functions, the more effective it is. Potency is directly related to effectiveness. The belief that serious diseases require potent remedies is common to many cultures. This leads to some medicines being taken for the side effects they produce, which are thought to portend a cure when they happen.

A surgical or a medical procedure is considered beneficial if it evokes severe pain, induces heavy perspiration, or severe vomiting. Bleeding during catheterization, a

frequent procedure in manipulating strictures of the urethra is seen as portending a successful outcome.

Uncontrollable diarrhoea is also looked upon as a measure of how effective a purgative is, and so healers prescribe drastic *sharbas* (purges) to satisfy their patients. Both the healer and the patient believe that a purgative medicine works better when it is potent. Patients therefore seek drastic purges and the healers often oblige, but caution their unwary clients of the potential hazards they are likely to face. Nonetheless, drastic purges have been given to patients and have caused severe bouts of diarrhoea and even death.

If a medicine causes sneezing when inhaled, then it is surely effective. The evil spirits are expelled, and the patient is thankful.

Metaphor and symbolism have given most Sudanese medicinal items their names and meaning, and frequently defined their therapeutic value as well. Metaphor has helped the healers and the patients alike to perceive, chose, and use medicines. Some medicaments are chosen for their symbolic significance, their shape, taste, colour, or behaviour. Their virtues are derived by analogy rather than from any rational process of observation. The main principle underlying plant choice in these instances is *similia similibus curantur* (likes cure likes). The plant *shajarat al-khallas* (chastity tree) that resembles the placenta, offers a typical example (see also page **Error! Bookmark not defined.**).

Similarly, pumpkins are used to treat breast abscesses and swellings because they look like the breasts. A half-cut fruit is applied to the affected part with the rounded surface outwards. It is thought that this procedure not only cures the disease but also will restore the breast to its former smooth and rounded shape.

In addition, round objects that look like the eyeball, are used for the management of eye problems. A *marfa'in's* (wolf's) orbit is pulled out of its socket, dried up, and applied to a cataractous eye to reverse eye opacity.

The way the porcupine unfolds and retracts has probably led the lay mind to believe that the animal's meat has delivery-enhancing properties. A pregnant woman partakes of the porcupine's meat or attaches a piece of the animal's skin to her body when delivery sets in, to unfold the womb as the porcupine unfolds itself.

The consistency of a substance is also considered when looking for cures. The *sanamir* is a type of fruit (or seed) that is imported from Jeddah in Saudi Arabia, and is used because it is slimy. The people of Sawakin in the Red Sea region use this plant to treat infants' diarrhoea and teething problems. They make a watery paste out of the plant, and then apply it to the top of an infant's head allowing it to run down to the chin. This, they believe, draws the teeth down through similar action.

The side effects of medicines, Tigani Al-Mahi noted:

“Were hailed as oracular and were used in the manner of omens which augur and portend success; for enhancing the psychological responses, moralizing in treatment. This practice in antiquity was perhaps more subtle in a way than the use of Tartar Emetic by Sir Samuel Baker, explorer and

African traveller of the last century. Though Sir Samuel was not a physician, he had better and deeper insight into human needs and problems. Sir Samuel used Tartar Emetic as a shotgun prescription for all maladies to induce vomiting which, as a manifestation, he predicted beforehand to the patients. His prediction was regarded by his patients as oracular, which, on happening, proved the veracity of his work. His success was enormous, and the 'bearded Englishman' draught became proverbial."⁴

The role of the colour red in the healing cults and rituals of the Sudan has been mentioned elsewhere in this book. Red-coloured objects feature as amulets, and in ritual and medicinal items. Many of these are related to the colour of blood and, therefore, are used to treat alleged blood disorders. The *karkade* (red sorrel) is a common soft sweet beverage in many parts of the Sudan. It is also a popular medicine for *darbat al-damm* (blood stroke), and for a cough in which blood is present in the sputum. A patient sucks a few pods of this plant or takes it as a hot drink.

Turmus (*Labinus termis*), and *molaita* (*Reichardia tingitana*) are plants that are alleged to have anti-diabetic properties. Both are bitter when raw, and are therefore taken raw by patients suffering from diabetes mellitus in the belief that they lower sugar in the body through opposite action. This is a superficial understanding of the essentials of a common disease such as diabetes mellitus.⁵

Medicinal plants

Recipes of vegetable origin make up the largest part of the Sudanese *materia medica*. Some plants when used in healing have genuine pharmacological effects, while others are believed to work through supernatural or magical attributes, or because they are a certain shape, have a specific consistency, a peculiar smell, or colour.

A recipe may contain one plant or more, and the plant may be used as a whole, as is the case with herbaceous plants, or in part.⁶ Examples include the leaves of *harjal*, the fruits of *hijlij* (*Acacia aegyptiaca*), the latex of 'ushar (*Calotropis procera*), and the gum of *Acacia arabica*.

Most medicinal plants grow wild, but some are imported from neighbouring Arab countries and the Far East. Examples of imported plants include *qirfa* (cinnamon), *ganzabil* (ginger), *habba han* (cardamom), *karamya* (caraway), and *sandal* (sandal wood). Herbal items are sold by urban vendors in the streets of many Sudanese towns, and in groceries called the '*attara*'⁷ (herbal shops).

Herbal treatment is usually associated with magical and religious rituals and incantations. *Bakbur al-taiman* (the twins' incense), for example, is burned whenever a disease is suspected to be due to the evil eye;⁸ the incense, it is believed, exorcises the evil. Healers, on the other hand, add various religious prescriptions-amulets and erasures-to support medicinal recipes. Some things are believed to protect women during pregnancy by averting the evil eye and evil spirits that haunt them during pregnancy and confinement. Examples include the eggplant, cumin seeds (that are used for their black colour), and onions (for their repellent smell). These are kept under the beds of women who have recently delivered, as part of the *mushahara* (page **Error! Bookmark not defined.**)⁹

Shajarat al-khalas (chastity tree), on the other hand, is kept handy whenever a woman is about to give birth, to ensure safe and easy delivery.

The fumes of boiled *durra* (sorghum), known as *balila*, are believed to drive evil away. In performing this type of cereal sacrifice, people frequently say '*yaẓil al-bala bi al-balila*' (literally, boiled *durra* removes harm).

These therapeutic regimes have shed some of their usual cultural overtones, and the magical and religious rituals have consequently decreased in recent years. This is particularly noticeable in urban settlements, probably due to contact with modern medical institutions and practitioners. The basic dictates of traditional medicine are still followed.

Poisonous plants

People have always suffered from snakebites and scorpion stings, and experienced the noxious effects of various mineral and vegetable poisons. Over the years, these have been identified and named, and practitioners have harnessed the resources of their bountiful environment to provide measures for protection. They have also discovered how to extract poisons from some of these plants, and probably how to prepare antidotes. The poisons they have extracted have been used to commit crimes such as homicide or infanticide, and to aid legitimate pursuits such as fishing and hunting. Warriors of the southern and western tribes paint lances and arrow-tips with poisonous extracts, and use these deadly weapons in hunting animals, in personal combat, and in war.

This section includes description for man, cattle, camel, fish, fowl poisons, as well as molluscicides, pesticides, insect repellants, anti-lice, elephant hunting aids, arrow and lances poisons, and agents used in ordeal, homicide, infanticide, suicide, abortion, and anti-dotes.

Shajarat al-sim (*Adenium bonekele*), also known as *daraq* in Taqali, *narurai* in Al-Liri, and *tumu* in Kaduqli of the western Sudan, is a common source of poison. However, many other plants are known and used. I have included in this inventory most, if not all, the poisonous plants that have been reported in the Sudanese literature including those identified in recent surveys.

Many tribes in the southern Sudan cultivate certain plants or collect wild ones to isolate their poisonous principles for catching fish. Fishermen throw or spray pieces of bark, fruits, branches, pods, seeds or leaves on top of a pond or a running stream. They sometimes macerate the plant before they throw it in water. The active principle oozes, stupefying or killing the fish, which eventually float to the surface to be caught. They are then usually eaten as wholesome food.

Many poisons do not harm human beings or higher animals, but affect lower species and insects. Preparations of *dawa al-samak* (*Tephrosia vogelli*), have killed insects such as lice and other vermin. Other poisons are so potent that they may kill a small crocodile, cause diarrhoea in human beings, or harm grazing cattle.

The poisonous properties of some plants have attracted researchers in insecticides, molluscicides, and anti-bilharzials. Sir Robert Archibald¹⁰, as early as 1933, suggested that *lalobe*, the fruit of *hijlij*, *Balanites aegyptiaca*, might be used to

combat bilharzia in the Sudan. He noted that the active principle in *lalobe* could poison freshwater snails and the bilharzia parasite in its free-living stages.

Certain plants have strong narcotic effects, which the people have recognized and used to advantage. They have sometimes crushed *saiakaran* (*datura*) seeds and added them to the local beer, *marisa*; alternatively, the latex of '*usbar* (Sodom apple) is used. In both cases, the intoxicating effect of the beer is increased. This is used in the course of robbery and in hunting monkeys. Other poisons have been used in suicide, homicide, infanticide, in inducing abortions, or in inflicting various types of injury. The emmenagogues¹¹ on the other hand, may be none other than abortifacient substances.

Without explicitly stating why, the women in Kordofan have forbidden adolescent girls to eat the *lalobe*; they have apparently noted that girls who consume large quantities of the fruit conceive late, or may even become infertile. Recent research, furthermore, has given some support to this traditional belief. Maha Nasr Al-Din Babiker and Ibrahim Abu Al-Futuh in the Faculty of Pharmacy of the University of Khartoum have provided this evidence. They found that the oral administration of the succulent edible part of the *lalobe* produced post-coital infertility effects in female rats. They attributed this either to the fruit inhibiting implantation, or to its interference with the normal process of pregnancy.¹² It is noteworthy that women seeking contraception in the Kordofan region have found this fruit most effective. They only need to suck a few unripe pieces of the *lalobe* to achieve their goal.

Accidental poisoning has frequently occurred through a person inadvertently taking an overdose of a common medicinal plant routinely used to treat some everyday ailment. The offender is usually an inexperienced healer or a quack who is evidently ignorant of the toxic properties of the plant he or she is prescribing.

The latex of '*usbar* is held to be harmful to the eye, and it is therefore blamed for causing blindness. This, however, is not borne out by experience. The milky juice has caused more or less severe inflammatory eye reactions, but these do not result in blindness.

Burckhardt in *Travels in Asia* (1819) reported on the health conditions in Shendi and Berber towns. He noted that there was a big slave market at Shendi. Besides, he also observed that the slaves had endured great hardship on the way to the market, and that many had died before they reached it. He also said that if a female slave became pregnant; her master would do his best to get an abortion by one means or another. They would either give her some medicines to drink, beat her on the abdomen, or put the extract of the Dead Sea fruit [*'usbar*] on a piece of cotton inside her vagina.¹³ The latex of '*usbar*, *Calotropis procera*, is still used for this purpose in many parts of the Sudan. Nadel writing about Heiban and Otoro tribes of the Nuba Mountains observed that virginity of the bride is appreciated-vaguely and in a platonic fashion. It is rarely, if ever, a reality. The girls in Otoro and Heiban are familiar with methods of preventing childbirth or procuring an abortion. They range from pure superstitions, like pulling a string from the fringes of the pubic apron and burying it under the door of the sleeping hut (to dig it up again after marriage), to more empirical practices, e.g. massage of the abdomen

and the use of strong laxatives: a preparedness all the more characteristic, as in this society, where girls marry as soon as they are sexually mature, the danger of an untimely pregnancy is comparatively small.¹⁴

Shatta (red pepper) is a popular condiment and appetizer of which people consume small quantities with food. However, when they take it in large quantities, it proves to be harmful. It results in a burning sensation in the mouth, throat, stomach, and rectal passages, and causes vomiting, colic, diarrhoea, and even death.

The Azande and their kindred tribes of the southern Sudan use certain poisonous plants and minerals in divination procedures. Evans-Pritchard has described at length some of these practices and reported on the nature of the poisonous material used in divination by ordeal.

Broun and Massey recorded the use of the seeds of *Erythrophleum guineense* as an ordeal poison among the Dinka tribe. They reported that:

“The accused is required to swallow four of the seeds with water, after they have been cut into two, the belief being, that the innocent vomit the poison and are safe, while the guilty retain the poison and die.”¹⁵

Grove¹⁶ described the use of another ordeal poison among the Acholi tribe, and Anderson noted yet another Azande one but neither of these authors characterized the agent. However, the Azande were known to force a condemned person to eat four small beans obtained from the pods of a tree called *lappa*. This was most probably the plant *Erythrophleum guineense*.¹⁷

The *banga* cult has attained a special importance among oracular procedures because it uses a poison ordeal. Early anthropologists, who have studied the social systems of the southern tribes of the Sudan, have described the cult at length. Edward Evans-Pritchard dealt with the cult in *Witchcraft, Oracles, and Magic among the Azande*.¹⁸ Major Brock writing in *Sudan Notes and Records* in 1918 reported that the poison is obtained from the root of a shrub usually found growing in *khors*; it is rarely found in the Bahr Al-Ghazal and mostly comes from the Belgian Congo.¹⁹ Kirk later reviewed the evidence related to the nature of the poisons used, and incidentally noted that investigating this field is laden with difficulties because many of these practices are highly secretive. He reported that:

“*Benge* is described by Anderson²⁰ as a powdered root obtained from the Congo, by Seligman²¹ as a red powder obtained from a creeper growing in the wooded region south of the Uelle River in the Belgian Congo, in the land of the Mongbettu and the Abasambo. Its nature is a little uncertain. An ordeal poison known as ‘*bengue*,’ and obtained from the Haut-Oubangui region by Pouthiou, was analyzed many years ago at Bordeaux by de Nabais and Dupoy, who found that it contained strychnine and a red coloured matter, and concluded that it was identical with the M’Boundou poison of the Gabon (*Strychnos Icaja* Baill.). A sample of *benge* from the Bahr Al-Ghazal was analyzed in Khartoum by Dr. Beam²² and found to consist of a brownish-red oxide of iron with a small amount of fine sand. It contained no organic material or metallic poison. Beam suggested that the powder was

probably selected because of its bright red colour, and when a bad omen is desired poison of some sort is added. A later sample analyzed by Mr. Grindley²³ in 1943 was found to contain strychnine.”²⁴

Some plants poison human beings or grazing cattle when they are eaten raw, improperly cleaned or processed, as may happen in famines and periods of general scarcity. Cyanogenesis occurs if bitter cassava, *Manihot utilissima* is consumed uncooked. This type of poisoning arises from failure to remove the contained glucoside and ferment. These two components, in the presence of water, liberate the poisonous prussic acid. Thus, the glucosides and ferments that are contained in the milky juice should be thoroughly pressed out by washing, scraping, and grating the tuber before it can be used safely.²⁵ Animal owners have also noted that the roots of some plants are poisonous to their livestock. *Haikabit*, for example, also known as *sharoba* and *gulum* (*Capparis tomentosa*) is well known to be poisonous to camels.

Father Zugnoni of Deim Zubeir Mission has heard that members of the *Yiled* secret society in the Banda country in southern Sudan use several kinds of poison. They avoid medicines, which produce immediate deaths for they are too afraid of the courts, but they use poisons, which are alleged to cause death after several days, perhaps after months. One of these poisons is said to be prepared from the juice of the *mbuga* (*Euphorbia* sp.), which is administered in gravy and produces swelling of the belly. People under its effects drink much water, and death probably results in ten to fifteen days. Women have no fear of this poison for they prepare their own food, and eat it apart by themselves; also, they are believed to know the antidote, and will willingly administer it to people who yield to their wishes, make reparation, and pay the fines. Another similar poison is produced from certain tubers, which are pounded and mixed with millet flour. This produces nausea and vomiting. Blindness can be produced by certain small leaves, which are placed in the water with which a person is to wash.²⁶

Traditional health practitioners take great pains in preparing safe medicinal recipes. They try hard to eliminate the harmful substances in the plants they use. Nonetheless, cases of severe toxicity, irreversible organ damage, or even deaths have occurred. In 1908, Anderson commented on the outcome of the local treatment of gonorrhoea in Kordofan:

“The native treatment of gonorrhoea is not only ineffective but most dangerous. There have been three deaths in the Civil Hospital, El Obeid, during the last year from malpraxis in this direction, one from anuria, another from acute ascending nephritis, and a third from gangrene of the scrotum and penis. Each of these unfortunates had, prior to admission, undergone a course, resulting in severe vomiting, diarrhoea, and acute inflammation of the kidneys, with haematuria, the passage of blood being looked upon as an essential to the cure.”²⁷

‘Root therapy’ is the use of plant roots in healing and in magic. The Fullan tribes of Darfur, the Nigerians in the Sudan, and all the people of the western Region of the country and neighbouring Chad, have attained a wide reputation for proficiency in the use of ‘*uruq* (roots).

In the early 19th century, Al-Tunisi, an Egyptian traveller, visited Darfur, and described incidents in which the *'uruq al-sibir* (the magic roots) were implicated.²⁸ He asked his *shaikh*, Medani Al-Fotawi, about the secrets of the *Nara* roots so popular in the region at that time. He was told that the holy books that were communicated from God to Adam, Abraham, and other prophets, were buried and grew plants. The seeds of these plants were later borne in the air and dispersed throughout the globe; from these also grew the plants from which the 'roots' in question are dug out and used in subsequent years.

The 'roots' are credited with a variety of attributes throughout the Sudan. People believe that some of these roots protect against snakebites, scorpion stings, gun shot wounds and knife injuries. Others help to attain love or attract a spouse. The roots that protect against snakebites and scorpion stings are also used in the treatment of these afflictions.

Some 'roots' are used to scare away locusts in the Nuba Mountains and Darfur Region. The Dar Masalit and Zaghawa tribes are famous in this field. In these tribes the *Dambbari* keeps the secret knowledge about certain 'roots' and uses them with the necessary rituals to scare away locusts. In the Nuba Mountains, the right to carry out this procedure and that of rainmaking are prerogatives of the *kujur's* office.

Some people wear specific types of 'roots' as amulets to protect them against troubles of one kind or another. Others keep some handy to be used as and when necessary. If one is bitten by a scorpion, for example, one chews a piece of 'a scorpion root' and applies it to the affected site. Alternatively, one rubs the root vigorously over the bitten area to effect a cure.

Eric Hussey reported on the crocodile charmers in the Dindir area in 1917. Among the West African folks who wander through the Sudan on their pilgrimage to Makka, one occasionally finds members of the Hausa-speaking Kabbi tribe, a race of fishermen who live for the most part in a large city called Argungo, about one day's journey west of Sokoto. Members of this race are recognizable by the marks on their faces; ten long cuts spreading out in a fan-shape from the corner of the mouth on the right side, and nine on left, meeting vertical cuts on each side of the brow.

These people have a curious power over crocodiles, which they pull out of the water alive, the crocodile apparently being subject to their influence. A crocodile, reported Hussey, was taken out of the Dindir River in his presence, and was very much alive but quite under the spell of his captors. He was afterwards cut up and eaten.

The secret of this power is said to lie in a certain *'uruq* compounded with herbs found in the forests of Nigeria and its composition is known only to the old men of the tribe. The *'uruq* are smeared on the body and a small portion is eaten by the fishermen before entering the water. A line is stretched across the stream with baited hooks attached on which fish are caught, while the fishermen walk up and down beside the line. If an inquisitive crocodile comes up to the line, one man seizes it by the jaws and another by the tail and they drag it alive to the shore. If it is a very large crocodile, a rope is tied to its tail; several men are then required to

pull it up the bank. This method had to be adopted with a crocodile, 16 feet long, which happened to be caught one day when a sub-mamur was staying at the village. In 1914, the pools in a large stretch of the Dindir River were cleared of crocodiles by three or four men of this tribe who were living at the large Fallata village on this river.²⁹

Mood adjusters and narcotics

The arrival of coffee in the Sudan late in the 16th century A.D. had its impact on the conservative Muslim society of that time. The learned men approved coffee for individuals with a 'phlegmatic temperament,' but not for those with a choleric temperament, because they believed that coffee increases choler.³⁰

The problem of tobacco remained a point of disagreement among early scholars for a long time. Ibn Daif Allah, an 18th-century Sudanese historian, described at length how the fervent debates among the Sudanese scholars were taken up by the learned men in Egypt and continued with equal vigour and enthusiasm.³¹

Tigani Al-Mahi elegantly reviewed the history of *kbat* and coffee in East Africa. In this review, he described the proverbial attachment of the famous Yemeni mystic Ali Ibn Umar Al-Shazli's (1442 A.D.) to coffee. He said:

“According to tradition, Al-Shazli was responsible not only for the spread of coffee but for making coffee much more popular than *kbat*. It is necessary to explain in this respect that coffee was and is still being prepared for use from the husks and not from the beans. This is true in Yemen and in some parts of Arabia and of Ethiopia. The name given to this preparation is *al-kahwa al-kishbriya*, i.e., husk coffee. The husk coffee is sweetish and agreeable in taste and its stimulating effect is even stronger than the bean coffee. In many respects, it is superior to the ordinary coffee. The name of Al-Shazli is immortalized today as the patron saint of coffee. To mark his championship, coffee is given the appellation of *Al-Shazli Abu Al-Hasan* in some countries such as the Sudan.”³²

During the Mahdiyya theocracy (1885-1899), the Mahdi denounced and banned the consumption of alcoholic beverages, smoking tobacco and the use of *tumbac* (snuff). He declared the consumption of these items to be unforgivable sins.

Tumbac, it is worthy to note, holds a special place in the *materia medica* of the Bahr Al-Ghazal Region of the southern Sudan. It is a staple remedy for all illnesses. It is used as a medicine, a dressing for wounds, and as a wash to safeguard animals against the bites of 'fly'.³³

Since the Condominium, the law in the Sudan has banned the smoking and handling of *hashish* (*Cannabis indica*) known interchangeably as *banqu* and *kamanqa*. Nonetheless, *hashish* remains popular, and is smoked secretly throughout the country.

Shanty settlements surround every major city and town in the Sudan due to the ravages of the protracted civil war in the southern Region. Because of the crowded conditions in these areas and growing poverty in general, *shammasha* (vagrant children) swarm the streets, and have developed their own 'street culture'.

They have established various habits including sniffing a variety of petrochemicals including acetone, silicone, benzene, glue, and the like for 'kicks'.

In Muslim Sudan, the teachings of Islam forbid the consumption of alcoholic beverages, but in spite of that, different tribes continue to distill and brew a variety of them. They distill *'araqi* from sorghum, dates, bananas, onions, guava, grapefruits, oranges and many other substrates rich in starch.

Dealers selling alcoholic drinks secretly, often adulterate these beverages to increase their intoxicant effects. They even dare to add chemicals from old car batteries to their brew, resulting in severe poisoning. Some Sudanese within the country and those who have immigrated to the neighbouring countries that ban alcoholic beverages have consumed eau de cologne and other perfumes containing methyl alcohol. This practice produces permanent optic nerve atrophy and results in permanent blindness.

Marisa, *'asaliya* and *sharboat* are fermented beverages that are popular throughout the country. Cereal grains, dates and a wide variety of fruits make the most common substrates for brewing these beverages. *Marisa*, a local beer³⁴, is a staple food in the southern and the western Sudan. Krump while at Mosho [Hafir Mosho] and Sennar (1700-1702), wrote:

“Not only here but in many other countries of the Moors, too, they make a drink or beer called *busa* from this *durra* in the following way. They soften this cereal in water, then dry it in the sun as we do (in Europe) in the malt-kiln, then they pound it to flour on which they then pour boiling water and leave it until it has cooled, then they leaven it so much with yeast that it becomes similar in colour and smell to hops ... by drinking this brew they get drunk.”³⁵

In eastern Sudan, *'asaloab* is a strong alcoholic drink that is made from honey and the bark of a certain tree imported from Abyssinia. The locals call this tree the *sadob*. Kirk, who described this drink, says the following of this bark:

“... As far as I am aware, it has not yet been identified either botanically or chemically. Mead to which this substance has been added is extremely potent. Comparatively small quantities produce rapid and prolonged intoxication, even in habitual heavy drinkers of alcohol. In some cases it has been noticed that the pupils are dilated.”³⁶

In the same region, the followers of the Mirghaniyya Sufi order partake of a special beverage or porridge during their religious services on Mondays and Fridays. It is called *qahwat loz*-coffee with milk and crushed almonds. When it is porridge, it is made of rice, milk, sugar, crushed almond, or peanuts if almond is not available. *Loz* (almond), however, is a very rare ingredient in the Sudanese *materia medica*, but it is popular in Arabian recipes, and is credited with various virtues. It is believed that it is a panacea for chest troubles, that it treats liver, spleen and skin diseases, augments eyesight, and increases the amount of ejaculated semen.

Organic substances

The traditional Sudanese diet combines staple foods, the meat of different animals-cattle, sheep, camels and goats, as well as fish, poultry and seasonal fruits and vegetables. It naturally varies according to locality, ethnic group, mode of life and degree of contact with cultures. The Turkish and Egyptian, influences on culinary habits are clearly seen in the northern and central Sudan, and among Muslim groups throughout the country.

Recipes that are more exotic are prescribed for rarer ailments. Finely ground crocodile's sex organs and rhinoceros tusk are prescribed as aphrodisiacs. People also eat the meat of *abu-dalaq*, a rare black bird, as a cure for rabies. They use *dofr*³⁷(the dried cartilaginous remains of shellfish) to manage fever and wasting diseases.

Sorghum flour is sometimes cooked into *madida* or *nasha* (drinkable porridge), and various medicinal herbs are added for their flavouring and spasmolytic properties. The following are typically added: the herb *mahareb* (*Cymbopogon proximus*) as flavouring and a spasmolytic agent, or *hilba* (fenugreek), and *tabniya* (sesame sweat cake) are lactogenic items.

Samin (local purified butter), dates, and milk also recur frequently in recipes. Some animal organs, products, and excreta are credited with therapeutic properties influencing mind and body. Cat's meat and donkey's milk are taken for whooping cough. An extremely minute amount of finely powdered crocodile penis, *ihlil al-tumsah*, is credited with aphrodisiac properties. Porcupine's meat is said to hasten delivery, that of *abu al-dalaq* cures rabies, and crocodile's lung treats asthma. Lemon juice or *qarad* (sunt pods) macerate in curdled milk, rice water, *rashad* (*Senebiera nilotica*) seeds in goats' milk, boiled milk, *barjal* (*Solenostemma argel*) paste in cold water, have all been alleged to treat diarrhoea in children. Meat in general and beef in particular are believed to cause *haboub* (wind) and flatulence.

People consume the milk of sheep, cows, or camels when it is fresh or after fermentation. In the northern Sudan, they prescribe donkeys' milk fresh and warm from the breast for the treatment of whooping cough. The patient keeps drinking it until a cure is achieved. If a child falls ill with measles, its skin is rubbed with goat's milk; later, the rash is anointed with the milk froth.

The Sudanese consume a variety of milk products. *Robe* (milk curd) is considered a healthy drink and one that keeps longer than fresh milk. *Samin* (ghee) and *wadak* (animal tallow) have frequently appeared in the preparation of medicinal and cosmetic recipes. They have also been constantly used in body massage and skin care. Women also frequently apply oil, alone or mixed with perfumes and other ingredients, to their skin to keep it supple and healthy.

The Hadandawa tribesmen of the eastern Sudan apply *wadak* liberally to their distinctively plaited hair. This often gives their hair a peculiar smell that is barely tolerable to those unaccustomed to it. They also apply *wadak* as a poultice on abscesses, to ripen them until they burst spontaneously.

Stories have been circulated in early Sudanese chronicles attributing miraculous cures to certain foodstuffs. Tigani Al-Mahi stressed that these dramatic recoveries were overwhelmingly psychological. He said:

“It is difficult to see how a dish of dates prescribed to a patient bed-ridden for months could possibly bring relief to the sufferer almost all of a sudden. In a seventeenth century chronicle we are told that this was prescribed by a physician to a patient whose name was given, and a member of the family taking the caravan route in earnest in a round trip of fifteen days brought the dates from another part of the country and dutifully laid them before the patient, who on partaking of the fruit brought by his nephew made a sudden and spectacular recovery. Perhaps the rigorous trip in the mind of the patient was the major psychological issue that triggered the process of recovery. His disease must have been largely if not exclusively psychological.”³⁸

Kala-azar (Visceral leishmaniasis) is endemic in southeastern Sudan, especially in the Singa area of Blue Nile region. There the locals designate the disease *marad al-sa'id* (the disease of the North), and have tried several cures (page **Error! Bookmark not defined.**). The nomads in this area give the patients a diet formed exclusively of *al-qaris* (fermented camel milk), on which they live until cured. Sometimes they add 12 kinds of medicinal herbs that they call *bubarat* (spices) to the milk, and the patient is expected to drink it for 12 days.

Oil obtained from ostrich fat is famous in many parts of the country as a relaxant for the muscle contracture and shortened tendons that frequently complicate burns and fractured bones when they are badly set. Oil is massaged over the affected site for several weeks with allegedly gratifying results.

The glands of some animals produce certain secretions that man has found to be useful in certain circumstances. The tears and saliva of cattle suffering from *abu-lisan* or *gadda'* (foot-and-mouth disease) have been found to protect the healthy herd through a process akin to variolation. A piece of cotton gauze is soiled in the tears or the saliva of the sick animal, and then transferred to a healthy one. It has obviously been noticed at some stage that such secretions protect the herd against the disease. Another type of variolation makes use of a dead cow's infected lung. Cattle owners cut this lung into small pieces, make small incisions on the ear of each of the healthy cows, embed the lung tissue in the wound, and sew it up. This, they believe, protects the cows against catching the disease.

A mother frequently applies her saliva to the eye of her baby to expel a foreign body from it, and covers an infant's infected boil with spittle in the belief that saliva has healing powers. Sniffing camel hump is believed to relieve urine retention in man

Sheep's bile is another item that frequently appears in food and in therapy. The inhabitants of the northern Sudan love it as an appetizer that they add to the popular dish of raw entrails, *marara* (a *hors d'oeuvre* of raw offal-stomach, liver and lung) and to *um-fitfit* (raw stomach and small intestine). These two dishes are delicacies that are freshly prepared after home slaughter. When one is presented with one of these dishes at breakfast, it is a sign that one is a truly honoured guest.

Animal excreta have also appeared in the Sudanese *materia medica*. In several occasions, people knew how they got ill. They noticed that mosquitoes swarm in rainy seasons and fevers increase then. To protect themselves and their animals, cattle-owning tribes throughout the country paint their bodies with oil or ash and burn cow dung to drive away flies and mosquitoes. The smoke repels mosquitoes and flies, and the fire scares away predators. Among the Dinka tribes, cattle are a source of wealth and power, and the cow is held in high esteem. It is therefore expected that they endow cows' dung, urine, and other excreta with favourable attributes. Indeed, they believe that cow dung is a potent cure for all wounds, and when it is burned, the ash is used in body-care. Many southern tribes apply the dung as a dye to their hair to give it a reddish tint. Shuqair reported in 1903, that the Dinka also gave cow's urine special attention, and preferred it to fresh water when washing themselves and their utensils; it was also used to flavour their butter.³⁹ The Dinka are not alone in using cow's urine this way, Shuqair added that urine was used in washing also in the eastern parts of the country, while the bark of the *ihlilij* tree⁴⁰ was used for washing in the west.⁴¹ On the other hand, in the northern parts of the country, human urine is occasionally used to clean fresh wounds, and in the places where elephants are found, their dung is used as a cure for asthma.

The meat of several animals and fish is an important part of the Sudanese diet. Islam specifies the types of meat man should consume and those that he should not touch (page **Error! Bookmark not defined.**). Shot animals should not be eaten unless ritually slaughtered immediately, animal blood is not drunk, and pork is strictly forbidden. Fish that have fins and scalps are eaten, but no other seafood. In addition, children in the Darfur Region barbecue locusts as snacks, and children eat termites in the southern Sudan. In the western Sudan, people of all ages sometimes ferment caterpillars and eat them.

People attach specific therapeutic significance to poultry and eggs, and order them as food for the sick, the convalescent, and nursing mothers. The belief is that both speed up the healing of wounds and fractures.

On the other hand, it is believed that egg yolk delays the development of a child's ability to talk. It is, thus, a taboo food in early childhood. Eggshells, however, are thought to have styptic properties. Users burn them, powder them, and apply a small pinch of the powder inside a bleeding nose.

In cases of eye inflammation, they instill in the eye a crocodile's liver extract or bile, a gazelle's bile, a cow's liver extract, or a nursing woman's milk.

Beeswax and honey have a special place among the organic products used in the Sudan. The popularity of honey stems from the Quran in which two verses stipulate that in honey is found 'medicine for mankind.' Whenever food for the sick is sought, honey comes first. It is instilled as drops for the inflamed eye, used for dressing wounds, and eaten as a general tonic. For infected wounds or *karu* (chronic leg ulcers), honey is the specific treatment. Several foods are believed to increase *ba'a* (virility). Some are indigenous, others were learnt of through contact with neighbouring cultures and from the Arabs. The Muslim medieval texts describe these items at length. Local items include dates, ginger, *zarana* seeds

(unidentified Latin name), *al-mardud* (unidentified Latin name), *tabniya* (sesame sweet cake) and honey. *Goro* (*Cola acuminata*) (kola nut), is a popular plant that Nigerian chew as a general tonic. Though this root is available, the Sudanese do not use it, most probably because it stains the teeth red, and, therefore, its use and the reasons for which it is taken are evident. Things pertaining to sexual vigour are always considered personal.

Metals, minerals & soils

Different minerals and soils have been awarded special attributes for supernatural or religious reasons. Some minerals have been blessed with the *baraka* (blessing) of a holy man, and have acquired, thus, a potency unrelated to any intrinsic quality. *Tinat* Al-Mikashfi⁴², and *tinat* wad Al-Turabi⁴³, are two types of clay that have been credited with this holy power. Both are clay that has been collected from the burial places of the holy *shaiiks*. The first is believed to cure snakebites, the second rabies. The *jardiqa*⁴⁴ and the *turaiba*⁴⁵ are two types of clay that are used as purgatives. The *turaiba*, in addition, is a specific cure for syphilis, and is dispensed as 'syphilis pills.' The chemical analyst of the *Wellcome Research Laboratories* in Khartoum reported the following about this mineral in 1904:

"*Tureba* is very generally used in the Sudan as a remedy for syphilis. The most highly prized is that from the vicinity of Berber; and the wonderful effects ascribed to it are attributed to the presence of mercury. How this idea originated is not known-probably simply by inference from its supposed anti-syphilitic effect. So general is the belief in the presence of mercury that the local *hakims* even employ small cones for treatment by fumigation."⁴⁶

The samples tested revealed no mercury, but examination of the watery extract prepared the local way⁴⁷ showed it to contain a considerable proportion of sodium carbonate and bicarbonate along with a certain, usually smaller, amount of sodium sulphate and chloride. A large amount of organic matter, humates, etc., was present in all samples, as well as a trace of iodine. The last was however in far too small proportion to have any medicinal effect.⁴⁸

The Prophet Muhammad has been quoted in the *hadith* (Prophet's Sayings) as having advised the use of earth or sand to cleanse utensils that a dog has soiled, irrespective of whether the dog is rabid or not. This is not a usual practice in the Sudan. Different types of earth have been used for other functions including healing. Deep river mud is the first choice for managing the *burjum* (chicken pox). It is believed to lessen itching and prevent infection of the pox.

Shebb (alum) is well known both as a substance that purifies turbid water and as a magical substance. A small piece of this mineral precipitates suspended matter in turbid water. In addition, an incense ingredient is used to identify an evil-eyed person. People believe that when alum is burnt in a censer, it melts and moulds itself into the shape of the evildoer.

Atroun (natron) is equally important in at least two processes. It digests the fibres of the popular food vegetable *molokhiya* (Jew's mallow) and makes its cooking easier. It also breaks down the tobacco fibres during the process of *tamtir* (*tumbac-*

making), and releases the active principle from the carbohydrates in the tobacco leaves.

Qa'ab Al-Laqiya is a valley near Donqola in the northern Sudan with extensive sand dunes, which, unlike many others in the country, are strikingly free from poisonous insects and reptiles. The region also has fine weather all the year round. Its people believe that *Qa'ab* sand treats a variety of diseases if the patient is buried in it. The place has therefore become a holiday resort for recreation, convalescence, and for the treatment of rheumatic diseases, hypertension, and other ailments that biomedical specialists have failed to cure. People simply are buried in the sand, eat well, rest, and frequently indulge in massage and *dukhan*.

People use a variety of plants and minerals to purify turbid water. *Turab al-rawwaq* (purifying earth) and *shajar al-rawwaq* (purifying tree) are popular in the northern region of the Sudan. *Turab al-arda* (termites' hills) also has purifying properties when sprayed on turbid water.

Many cultures believe that soot and spiders' webs have antiseptic properties, and use them as wound remedies. In the Sudan, the ceiling of the local kitchen usually collects soot, dust and grows spiders' webs. People collect this mixture and use it in the dressing of wounds. The spider's web is probably seen as the active principle in this mixture.

Many metals, including iron, copper, and zinc, and inadvertently, lead have found their way into the Sudanese *materia medica*. The waste from iron smelters, known as *khara-hadid*, was a popular medicine for syphilis in Kordofan. *Tutiya baida* (amorphous powder of Zinc Oxide), *kobl* (Antimony), *tutiya hamra* (Rosaniline, a tri-phenyl methane dye) and *hajar maqar*, have all been used in treating eye diseases. For more information on these metals, see the *Sudanese Materia Medica* page 19. Use of *kobl* (antimony) needs a special word of caution here as it is freely available and some products are sometimes adulterated with lead, charcoal, vegetable ash and possibly other organic matter, hence rendering it potentially harmful to users. The samples reported from Kordofan as early as 1908, were found to contain black antimony; no adulterating substances were identified.⁴⁹ In the Sudan, *kobl* is mainly used as eyeliner by women. Men rarely use it, and then only as bridegrooms. It is also applied to the eyes of children of both sexes when being prepared to be circumcised, but the potentially dangerous use is its application to the eyes of the newborn.⁵⁰ Worley reported in 1968 on lead poisoning due to lead adulterating *kobl*.⁵¹ Lead-based *kobl*, absorbed from the naso-lacrimal mucosa or ingested through sucking the contaminated fingers, may lead to chronic lead poisoning causing hypochromic and microcytic anaemia, chronic encephalopathy, and renal damage. Similar investigations corroborated these findings using samples obtainable in Saudi Arabia. In a survey published in 1993, Al-Kaff ⁵²et al investigated five most commonly used commercial products of alleged *kobl* eyeliners.⁵³ Pure *kobl* was found to contain antimony sulfide and trisulfide as its main constituents, and its source is a shiny, dark stone known in Arabic as *ithmed*, antimony in English, and *surma* in Urdu. The samples analyzed showed that some preparations have a high pH and a high lead concentration (88%), indicating that most preparations are lead-based rather than antimony-based. It is also found that some *kobl* preparations have a weak antimicrobial

effect against Streptococcus, Staphylococcus and Proteus species. Earlier studies by Tabbara et al found that *kohl* samples were heavily contaminated with Bacillus species, gram negative Bacilli, and a number of fungi.⁵⁴

Goldsmiths use *sulaimani* (Arsenic) to purify their gold, but sometimes the substance is swallowed in attempts at suicide, causing severe corrosion, oedema of the mouth and the upper respiratory passages, and sometimes death. Copper, on the other hand, is popular in the southern parts of the country as a treatment for rheumatic pain when worn as bangles.

Blessed and healing water

We have discussed earlier methods of water management and the material used to make it wholesome and potable (page **Error! Bookmark not defined.**). Some types of water, however, have been credited with holiness.

A holy man's *rakwa* (ablution jar), stands as a source of *baraka* for all those who touch it (see Figure 19 for a historical *rakwa* and *maqlouba* (prayer mat), page **Error! Bookmark not defined.**). The water it contains is blessed and is a cure for various ills. A car owner, indeed, might prime the radiator of his new car with its blessed fluid; this is believed to protect the car on the road.

Pilgrims to the Muslim holy land drink and wash repeatedly from the *Zamzam* water spring in Makka. This is the holy spring whose water gushed from underneath the feet of Hagar and her son Ishmael. All Muslims believe that this water is holy, and drink it for its therapeutic value. They often bring it back home after the pilgrimage for relatives, friends, and well-wishers to use. They take a sip, if the amount is large; otherwise, they satisfy themselves with dabbing the ailing parts.

Hammamat 'Akasha (the 'Akasha hot springs) in the northern Sudan, attract many patients from all over the country, in these spas people indulge in prolonged bathing. They usually suffer from trouble with their joints, skin problems, or other vague, chronic maladies.

Wells sometimes attain supernatural attributes. They become blessed if, for example, water gushes out more forcefully than expected. This happened in *Id al-Tin*, a village near Qadarif in the eastern Sudan. During the digging of an artesian well, an extensive underground river was tapped. Water rushed out with unexpected force, gushing several feet upwards. On analysis, the water was found to have had a high salinity, alkalinity, and sulfate content. It was also unpalatable. Nonetheless, the well became a Makka for all the sick from all over the country. Ahmad Bayoumi reported on this incident:

“The influx of water, being the first of its kind in the country, became a subject for supernatural and commercial speculation. A large illiterate population, with various cultural backgrounds, began to collect around the well, being attracted by a strong belief, which rapidly circulated around the country about the holiness of the water and its supernatural healing powers. The well became known by the local Arabic name *Faki Abu Nafura*, which literally means ‘Fountain Healer’. The initial curious gatherings gradually

added up to form a huge assembly of people turning the once infamous Idd El Tin into a pilgrimage ground. This great conglomeration of people, amongst whom were the ill, the deformed and the disabled, drank voraciously from the pool or massaged their bodies with its mud, hoping for miraculous cures.”⁵⁵

It is sad to record that all this resulted in an unfortunate epidemic of cholera-like gastroenteritis. Dozens of patients died before people were able to see that the water was neither holy nor healing.

A SUDANESE MATERIA MEDICA

Introduction

Some material in this descriptive inventory has appeared in my earlier pamphlet *Native Medicine in the Sudan* published in 1970 by the Sudan Research Unit, University of Khartoum. Since then, I have continued adding new items, and authenticating and updating information. I have corroborated much of the data other researchers had already collected, and tried hard to work out the relation between Sudanese practices and those documented in Medieval Arabic medical texts. This, I think, is a necessary step towards identifying some historical origins of the Sudanese practices, many of which are similar if not identical to those in neighbouring countries and the Arab world.

In this inventory, I have deliberately omitted all detailed data on pharmacology, phytochemistry, and toxicology. Interested readers may consult the source books and papers on these subjects. In addition, a few precautions are in order regarding the nomenclature I have used. There are always problems in transcribing Arabic terms into English no matter how stringent the transcription rules are. There are different languages and dialects in the country; all, including Arabic dialects, need their own special rules to help readers pronounce them properly. For these reasons, I have transcribed the vernacular terms (names of diseases, plants, organic and mineral items) in English exactly as the healers or the laity pronounce them. To help the Sudanese reader recognise these words easily, an Arabic transcript list will be published soon.

A plant should have only one legitimate, correct, and acceptable scientific name.⁵⁶ Scientific synonyms are illegitimate and should not be used. Nonetheless, plants in the coming list are entered under their currently accepted scientific names and under their synonyms because they were compiled over many years from different sources. Authors are added to the binomial whenever available. Since the purpose of providing a name for a plant is to assure repeatability of observations or experiments, it is expected that the correct and complete scientific name be used. Having this in mind, this list should be taken as a guide for other researchers to expand, improve on, and authenticate. Each plant, indeed, is a subject of an in-depth study that is more professional.

Furthermore, local people have described some plants by adding the common 'um' (mother of) and 'abu' (father of) as prefixes. For example, *Aristolochia bracteolata* has the following names: *jalajil*, *abu-jalajil*, *abu-jiljil*, *jiljil*, *jaljil*, and 'irq al-'aqrab (the scorpion root). This plant also illustrates another aspect worthy of note, the common use of onomatopoeic and descriptive names. *Jalajil*, for example, in local Sudanese Arabic as well as in classical Arabic, is a word that stands for the jingling bells that are tied to the feet of babies or animals. The Sudanese also call the seeds of senna *jalajil* because of this tinkling effect.

Moreover, many plants are named after the causative agent, and, therefore, we find a number of plants of different species called 'irq al-dabib (snakeroot) or 'irq al-'aqrab (scorpion root), for example. In view of this liberty in using prefixes and descriptive names, researchers should be duly careful in identifying such plants.

This work has relied on extensive field surveys of traditional practices. It has also drawn extensively on the information that has accumulated in the literature

throughout the last two centuries. I have visited many regions in the Sudan since 1966 to interview both healers and laity about their local recipes; all gave me valuable information. I have reviewed most of the literature on traditional medicine, and scanned with particular care most of the early anthropological and ethnographic studies on the different cultural groups in the country. With assistance from experienced taxonomists, I have meticulously checked and compared the vernacular and binomial names reported in the different sources. This has been a difficult job because there is no reference point. The only herbarium the country had, the Wellcome Laboratories herbarium, has been lost. A new herbarium has been started in the Medicinal and Aromatic Plants Institute 'in the National Council for Research, Khartoum; this is the only reference point for checking and authenticating medicinal plants in the country. To perform its functions properly, the Institute has launched several projects to collect, identify, and preserve herbal specimens. Had these projects been fruitful, or their results available, individual endeavours such as this would naturally have taken a different approach. In the meantime, the data in this inventory, and indeed, any data collected similarly, should be welcome additions, but should always be subject to specialized critical examination.

The preparation of medicinal recipes is often a skilled practice that differs from healer to healer. I have omitted the details that individual healers give for preparing recipes. Important as they may appear, I have not found them consistent; there are no uniform methods of weighing and combining the ingredients. Nonetheless, I have included the main principle involved whenever appropriate; these I thought should be of help for future researchers to take the subject further.

Some medical terms I have used in this work may appear vague when measured by modern medical rules. For example, liver pain and stomachache connote diagnoses different from the ones a modern practitioner would tend to understand. However, this is the terminology the healers and the laity use, and it is part of their system of medicine. I have therefore used modern medical terminology sparingly, and even then, I have used the terms that have general rather than technical applications.

A lot of work is expected from researchers and institutions interested in medicinal plants. Currently, there are extensive repositories of knowledge available few clicks away. Further information of a much wider nature and appeal, and certainly a lot of support would be found in the International Plant Names Index,⁵⁷ and the Integrated Taxonomic Information System,⁵⁸ to mention a few.

The poorly known botanical diversity of the Sudan requires a broad, multifaceted, yet clearly prioritized approach. The research programmes of MAHRI (page **Error! Bookmark not defined.**), TMRI (page **Error! Bookmark not defined.**), and the not-for profit organizations like the Sudan Medical Heritage Foundation (page **Error! Bookmark not defined.**) should in addition to their regular research activities fully endorse the priorities recognised by the international community⁵⁹ to describe and collate world plant species in a reasonably short time.

Inventory

1. Abadaib. *Ceratotheca sesamoides* Endl.
An annual herb that grows in the lowland plains in Central and Southern Sudan. Poutlice of leaves is used to treat swellings and tonsillitis in camels.
2. Abanus. Ebony. *Dalbergia melanoxylon* Guill. & Perr.
A deciduous tree. Stem used as fumigation ingredient, and in treating joints and muscles affections.
3. Abray. Dura flakes.
Thin white flakes made out of fermented porridge of white varieties of dura specially feterita. Various herbs including black cumin, shamar, 'aradeb and hilba are added. The product soaked in water and drunk sweetened without straining as a beverage during Ramadan (Moslem fasting month), and as food.
4. Abu Ajoura and Abu Qallout. *Leucas martinicensis* (Jacq.).
Erect annual herb. Whole plant used as anthelmintic, and in treating jaundice.
5. Abu Al-Iffain and Al-Lira. *Momordica balsamina* L.
A herbaceous climber. Fruit, leaves: ued as laxative, purgative, and anti-spasmodic.
6. Abu Al-Lissaiq and Abu Laban. *Commicarpus africanus* (Lour.) Dandy; *Boerhavia africana* Lour.; *Boerhavia plumbaginea* Cav., and *Commicarpus plumbagineus* Cav. Standley.
A glabrous herb that grows in Eastern and Central Sudan. Decoction of root is used in treating jaundice.
7. Abu Aweisha. Unidentified Latin name.
A root obtained in Talodi in Kordofan.
8. Abu-Jalajil; Um-Jalajil; Irq Al-Aqrab; Abu-Jiljil; Jaljal; Jaljil, and Abu Jalajil. 'Scorpion root'. *Aristolochia bracteolata* Lam. and *Aristolochia bracteata*.
Shrub or tree. Root or whole plant is chewed and applied to the bitten site as anti-dote against scorpion stings. It is worn or used for cautery after charring; or powdered and swallowed in severe scorpion bites. *Jaljil* means jingle bells, or seeds of *senna* in Sudanese vernacular. Used also for treating infections of the breasts, abdominal disorders as laxative, purgative, and anthelmintic. It is applied to caried teeth to soothe pain.
9. Abu Lebru. *Boerhavia plumbaginaceae* Cav. and *Commicarpus plumbagineus* (Cav.) Standley.
Solution injected rectally through a perforated horn of a sheep. Used in treating gonorrhoea.
10. Abu Marfa'in; Shajar al-Marfa'in, and Irq Shajar al-Marfa'in, 'Snake Root', 'Hyena Root'. *Randia nilotica* Stapf and *Catunaregam nilotica* (Stapf) Tirv.
Fruit, root and bark. Used as anti-emetic, anthelmintics, and anti-dote for snake bites.
11. Abu Qawi. *Gardenia ternifolia* Schum. & Thonn.
A glabrous shrub. Fruit, root: used in treating Bilharzia, jaundice, and enlarged spleen.
12. Abu Qutna. *Lasiosiphon kraussianus* (Meisn.) Burt-Davy; *Gnidia kraussiana* Meissner, and *Lasiosiphon kraussii* (Meisn.).
Pubescent herb. Whole plant and root used as poultice, in treating leprosy, and abdominal disorders.
13. Abu Rakhiesa. *Jussiaea erecta* L. and *Jussiaea acuminata* Sw.
Erect perennial herb or shrub that grows in marshy plains throughout Sudan. Macerate of the whole plant is used in massage to lower feverishness.
14. Abu Roru. *Stylochiton grandis* N. E. Br.
An erect annual herb. Root used as anthelmintic.
15. Abu Shutour and Umm Mashtour. *Kegelia africana* (Lam.) Benth.
A large Savanna tree. Bark used in treating joints affections, abdominal disorders, and dysentery.
16. Abu Shuwaika and Haj Al-Moya. *Hygrophilia auriculata* (Schumach.) Heinel.
An erect spiny herb. Whole plant used as poultice, diuretic, in treating jaundice, joints affections, and swellings.
17. Abu Sinaina. *Acacia polyacantha* Willd.
A local lowland tree. Bark used in treating jaundice and bilharzia.
18. Abu Surug. *Prosopis africana* (Guill. & Perr.) Taub. and *Prosopis oblongata* Benth.
A local wild tree. Pods, bark and wood used in boat building, in tanning, as treatment for sepsis and fish poison.
19. Abu Tamr Ahmar. Unidentified Latin name.
A variety of date tree. Root reduced to a pulp and packed in small leather charm, or stuffed in the cut ends of gazelle horns. Used as tonic.

20. Abu Tiffa and Kashaw Kashaw. *Leonotis nepetifolia* (L.) R.Br.
A pubescent herb. Fruit used as poultice, anti-spasmodic, and in treating swellings.
21. Abu Zafaya. "Snake Root". Unidentified Latin name.
Used as an anti-dote for snake bites.
22. *Acacia nubica* Benth. in Hook., Lond. J. Bot.
A lowland spinescent shrub that grows wild in Northern and Central Sudan. The stem and branches are used in the treatment of rheumatic pain. The root is used in fumigation.
23. Acetone. Dimethyl Ketone.
Colourless inflammable liquid with a pleasant smell usually used as nail varnish. It is inhaled by vagrant kids for kicks.
24. Adas. Lentil. *Lens esculenta* Moench; *Lens esculenta*, and *Lens culinaris* Medic.
Used as food and in water purification.
25. Adas Sudani and Lubia Adas. Pigeon Peas. *Cajanus indicus* Spreng. and *Cajanus cajan* (L.) Millsp.
Seeds used for food.
26. Adm Samak. Fish vertebra.
Fertility symbol and ritual item.
27. Afi Namasin. Unidentified Latin name.
Stem used in Al-Liri of Southern Kordofan.
28. Afna and Gadda. Asafoetida; Asafetida; Assafetida. *Ferula foetida* (Bunge) Regel.
Mass mixed with butter and smeared on lips of children with colic, or wrapped in cloth as anti-sterility. It is a gum resin obtained from the root latex of *Ferula* species (Persian aza: mastic, and Latin fetida: stinking), imported from Egypt. Used in treating swellings, carious teeth, flatulence and colic, gonorrhoea, abortion, guinea worm, abdominal disorders, as anti-sterility agent, and toothache analgesic.
29. Afsa. Gall Nuts.
Imported from India, Egypt, and Java. Used as toothache analgesic, in treating dabas, diarrhoea, and carious teeth and as dehydrant to the vaginal canal (hence tightening).
30. Afyoum. Opium. *Papaver somniferum* L.
Seeds; capsule; powder; mass used as aphrodisiac, and narcotic.
31. Agib Al Mai. Miremid; Rimit. *Bergia suffruticosa* (Del.) Fenzl. and *Lancertia suffruticosa* Del.
Perennial herbs that grows in the lowlands of Northern and Central Sudan. Root is used to treat syphilis and leucodermia, and alkaloids detected in stems.
32. Ain Al-Dik; Ain Al-Ifrit; Habbat Al-Ain; Habbat Al-Arus, and Yagomo (Golo). Bead Tree; Crab's Eye; Wild Liquorice. *Abrus precatorius* L. and *Glycine abrus* L. (synonym).
A local wild shrub. Seeds; root; leaves used. It is recognized as a poisonous item. It is used in treatment of sterility, inflammation of the eye, headache, and as a laxative, purgative, anti-cough, emetic, demulcent, and as an agent in water purification.
33. Ain Al-Marfa'in. Wolf's Eyeball.
Used in the treating inflammation of the eye.
34. Ajjour and Faqqous Al-Marfa'in. *Cucumis metuliferus* Naud.
A prickly weed. Fruit used to treat abdominal disorders.
35. Al-Arayib. Unidentified Latin name.
Camel fodder. Whole plant used to feed camels in long jounries to make them more tolerant to water starvation, and hence recognized as tonic.
36. Al-Bighail; Shoak Al Dhab, and Siha. *Blepharis linariifolia* Pers.; *Blepharis ciliaris* L., and *B. persica* (Burm.f.) Kuntze.
A local pubescent annual herb that grows in khor beds of Western Sudan. Whole plant used as tonic, in the treatment of abdominal disorders, Bilharzia and poultice used in treating swellings. Seeds used for water purification.
37. Al-Gani Ma-Gani. Unidentified Latin name.
Plant introduced by Nigerians. Root used in managing the evil eye, as a repellent of evil spirits, and as a fumigation ingredient.
38. Al-Rowand and Khashab Al-Rowand. Rhubarb. *Rheum officinalis* L. and *Rheum officinale* Baill.
Plant imported from India and North Africa. Rhizome (crushed in cold water). Used in treating chest complaints, inflammation, diarrhoea, as contraceptive, tonic, and emmenagogue.
39. Alag. *Kedrostis gijef* (J.F. Gmel.); *Coraliocarpus gijef* (J.F. Gmel.), and *Turia gijef* (J.F. Gmel.).
Lowland annual herb that grows in Western, Northern and Central Sudan. Macerate of whole plant is used as anti-spasmodic.
40. Alali; 'Irq Alali, and Irq al-Sehir. 'King of Roots'. *Securidaca longepedunculata* Fresen.
A wild local glabrous branched spiny shrub or small tree. Used whole, fruits, root (worn, sniffed or burnt) or stem for treating fungal infection, headache, joint pain, sunstroke, fever, as anti dote for snake bites, anthelmintic, an ingredient for water purification and fumigation.

41. Ananas. Pineapple. *Ananas comosus* (L.)Merr.
Fruit; stem used for food, substrate alcohol beverages.
42. Anber. Ambergris. *Ambra grasea* .
Intestinal concretion of sperm whale. Used in amulets, and an ingredient in perfume.
43. Andrab and Ginbeel. *Cordia sinensis* Lam. and *Cordia rothii* Roem. & Schult.
A small tree that is widespread throughout Sudan in lowland watercatchment areas. Roots and stems are used to treat wounds.
44. Ankolieb. Sweet Cane. *Holcus saccharatus*.
Cane chewed for its sugary juice. Reference to it is found in Kotschy et al. *Plantae Tinneennes*. Vienna, 1867.
45. Ar'ar. Juniper Berries; Common Juniper. *Juniperus communis* L.
Tree that grows in India and Saudi Arabia. Bark is used to treat piles.
46. Arad and Arada. *Albizia amara* (Roxb.)Boiv. subsp. *sericocephala* (Benth.)Bren and *Albizia sericocephala* Benth.
A local deciduous tree that grows in the lowland of Central and Southern Sudan. Pods, bark, and leaves used as emetic, a poultice, a poison, astringent, anti-cough, anti-malarial, anti-inflammatory, and in the treatment of jaundice.
47. Aradeb; Tamr hindi; Tumra (Kordofan); Al-Subbar (Arabic), and Danufi (Nuba). Tamarind Tree; Date of India. *Tamarindus indica* L. and *Tamarindus officinalis* Hook.
A large wild or cultivated tree that grows in Central and Southern Sudan. Parts used include young leaves, flowers, and fruit bulb. Fruit bulb is boiled to thick paste, dried and sold as balls or cakes. Infusion of fruits senna, qurunful, and karkade added is drunk to treat malaria and jaundice. Frayed twigs are used as tooth brushes.
48. Arak; Shao; Miswak, and Akiol (Dinka). Mustard Tree of the Bible; Tooth Brush Tree; Saltbush. *Salvadora persica* L.
Grows in Sudan. Frayed twigs as tooth brushes; root; fruits; stem; bark used in treating dabas, flatulence, colic, as anthelmintic, tooth brush. Juice is used to aid digestion, and as contraceptive.
49. Araqi.
Native alcoholic spirit, distilled from a wide variety of carbohydrates: dates, dura, guava, bananas, etc. Used also in treating splenic enlargement.
50. Asal Nahal. Bees' Honey.
Used in treatment of a variety of ailments including burning micturition, tropical ulcers, wounds, eye infections, joints affections, as anti-cough, in amulets, and as beverage, and surgical dressing.
51. Asaliya.
Fermented alcoholic beverage, brewed from dates, dura (wad 'akar or fetarita) or millet to produce a sweet mild alcoholic beverage.
52. Asaloab.
Fermented alcoholic beverage, brewed from honey and a bark of *sado* (a tree imported from Ethiopia).
53. Asida; Luqma; Qurrasa; Muttala; Abbuda; Hadib; Dibliba; Um-Halibin; Um-Kushkush; Bukkabiya; Wej; Mongakilo; Kesh Keshi; 'Ussara, and Sambousa.
Gruel or bread of different stiffness and shapes made of leavened dura, millet, bulrush millet, or wheat. Before cooking, the grain is leavened as 'ajin (fermented dough); the bread is eaten throughout the country with mulah (stew, soup); composition of dura 'asida: 14% protein, 1.5% ash, 2.5% crude fibre, 1% sugar on dry matter basis, 80% moisture (H.A. Dirar: 1987).
54. Atroun. Natron.
Common "surface salt", powder rock picked up in dry, hard yellow cakes from Bir Al-Natroun and other places in Donqola and North Eastern Kordofan, used as a medicinal item, helps beating *molokhiya* while being cooked (a drop of tea has a similar effect according to AbduAlla Al-Tayib: *SNR*; 45, 1945, page 22), or helps in the preparation of *tumbak* (snuff). Constituents: sand and clay, Sodium Chloride, Iron Oxide, Sodium Carbonate, Sodium Bicarbonate, Calcium Carbonate, Chlorides and Nitrates. Used also in treating syphilis, abdominal disorders, gonorrhoea, fever, splenic enlargement, jaundice, for dressing wounds, in managing teething troubles, as animal food, laxative, purgative, aphrodisiac, and in cooking.
55. Atroun Binna.
An amorphous obtained from Dongola region. Constituents: an alkaline earth. Boil, strain water on to dates, boil together. Used in treating fever and as a cooking item.
56. Bafra; Babwa (sweet variety), and Bazmangi (bitter) (Zande). Cassava (sweet and bitter varieties). *Manihot utilisima* Pohl and *Manihot esculenta* Crantz.
A cultivated tall woody herb with tuberous roots. Tuber (poisoning through cyanogenesis); frequently consumed during famines.
57. Bahr Al-Ghazal Fish Poisons. *Paullinia pinnata* L.

- Climber seeds; root. Used as fish poison.
58. Baid Ni'am. Ostrich Egg.
Used in amulets.
59. Baida.
Oil perfume extracted from *Mahlab*. Used as a perfume especially in massage.
60. Bakhra.
'Fumigation paper' with astrological formulae written on it before folding. Burnt alone or with frankincense and ambergris. It is burnt to drive away the evil eye and evil spirits.
61. Bakhur Al-Taiman. 'The Twin's Incense'.
Constituents: *shebb*, *irq alali*, *qarad* (7 pods), *ain al-'arous*, *kasbara*, *cammoun*, *luban ladin*, *ghasoul*, *fakouk*, *si'da*, *murr higazi*. Used as a panacea fumigation for all disease that is caused by the evil eye.
62. Bakhur Al-Tumbura. 'Tumbura Incense'.
Constituents: 'Uda, sandal, *jawli* (Javanese incense), *luban*, *mastica*, *dam'a sayila*, *kafour tayyar*, *mablabiyya*, *surratiyya*, *majmou'*, and liquid perfume. Used in divination related to zar tumbura rituals.
63. Bakhur Al-Zar. 'Zar Incense'.
Constituents: 'udiya, *luban jawi*, *luban 'adani*, *luban*, sandal, *mastika*, *dam'a sayila*, *fakouk*, *ghasoul*, *murr higazi*, perfumes. Used for fumigation in zar rituals.
64. Bakhur Jawli. Javanese Incense.
Collection of stones of different colours brought from Java, burnt with other ingredients in bakhur al-tumbura.
65. Balana. Unidentified Latin name.
A plant introduced and used by Fellata (Nigerians). Root (decoction) used in treating fits and sunstroke.
66. Bambang. Sweet Potato. *Ipomoea batatas* (L.) Lam.
Tubers used for food.
67. Bamia; Waika; Dweinde (Nuba), and Foma (Dinka). Okra. *Hibiscus esculentus* L. and *Abelmoschus esculentus* (L.) Moench.
Fruits and leaves known as *waika* when dried, *bamia* leaves are known as *sabaroag*, all of which are made into *mulab* (gravy). Also used as a poultice, in treating leprosy and in water management.
68. Banga; Benge, and Bengue.
This is an Azande ordeal poison of debatable nature, probably composed of a certain plant and minerals: strychnine-like alkaloid and brownish-red oxide of iron. The plant involved is possibly a creeper obtained from the wooded region south of the Uelle river in Belgian Congo. Part used is probably root. Used in divination by the Azande, and as fowl poison.
69. Banjar and Salij. Beetroot; Beet; Chard. *Beta vulgaris* L. var *cicla*.
Any of several widely cultivated plants. Leave eaten as greens, and the bulbous root eaten as a vegetable.
70. Baqdounis. Parsley. *Petroselinum crispum* (Mill.) Nym.; *Petroselinum sativum* Hoffm.; *Carum Petroselinum* Benth. & Hook., and *Apium Petroselinum* L.
Plant cultivated in Sudan. Whole plant is used in treating kidney stones and infections, and enhances growth of scalp hair and eyebrows, diuretic, and digestive. Used in salad.
71. Baroud. Gun Powder.
Used as abortifacient.
72. Barqouq. Plum. *Prunus domestica*.
Fruit.
73. Barsiem and Qhadhab. Alfa Alfa; Lucrene; Purple Medicle. *Medicago sativa* L. and *Trifolium alexandrinum* L.
Plant cultivated in Central and Northern Sudan. Whole fresh plant used in the treatment of kidney disease and stones.
74. Basal. Onion; Common Onion; Shallot. *Allium cepa* L.
Plant widely cultivated in Sudan. Fruits, seeds, and cover are used in treating disease of the chest, skin, throat, eye, ear, and nose, in treating fever, diarrhoea, dysentery, and gonorrhoea, as spice, food, diuretic, anti-septic, and in rituals.
75. Basal Al-Kilab. *Scilla lilacina* (Fenzl) Bak.
Tuber used as fish poison.
76. Basham Al-'Abied; Tirioti (Mandari), and Ulumba Banda). *Grewia bicolor* Juss. and *Grewia meollis* Juss.
A plant used in administering oath in Yilede and Kudu secret societies of the Banda tribe. Bark (boiled with turbid water to purify it), leaves are used by Banda tribe for making local salt (*kombo*).
77. Batatis. Potato. *Solanum tuberosum* L.
Tubers used for food.
78. Battikh. Water Mellon. *Citrullus vulgaris* Eckl. & Zeyh. and *Citrulus lanatus* (Thunb.) Mansf.
Fruits, seed kernel, and root used as analgesic poultice.

79. Bayad Al-Baid. Egg White.
Egg white used to treat the inflamed eye.
80. Bazingan. Aubergine; Egg Plant. *Solanum melanogena* L.
Vegetable used for food and as a ritual item.
81. Bebet; Bambit, and Nuwaiwiera. *Celosia trigyna* L.; *C. Adoensis* Hochst. ex A.Rich., and *C. acroprosoides* Hochst. ex Oliv.
Annual herb widespread in watercatchment areas in Sudan. Maceration of whole plant is used against tapeworm.
82. Benbeta; Asfar; Danabia; Hariera; Lablab Ahmer; Nuwwara, and Umm Balboul. *Digera muricata* L.; *Digera alternifolia* L.; *Achyranthes muricata* L.; *Achyranthes alternifolia* L., and *Digera arvensis* Forssk.
An erect herb that grows in the lowland and irrigated fields throughout Sudan. The maceration of the whole plant is used to dispel tapeworm.
83. Benzine.
Inhaled by vagrant kids for 'kicks'.
84. Bisilla. Garden Pea. *Pisum sativum* L.
Peas used as food and in water purification.
85. Bizr Kittan. Linseed; Flax Seed. *Linum usitatissimum* L.
Linseed is imported from India, and is used as poultice for treatment of fevers.
86. Bizr Qatna. *Plantago afra* L.
Seeds used like *rashad* in water with sugar for treatment of dysentery .
87. Boal al Naqa. Camel urine.
Increases labour contraction in women.
88. Boware (Nigerian). Unidentified Latin name.
A root imported and used by Fellata (Nigerian) used as decoction and drunk. Alleged to aid metamorphosis and helps in communicating with the spirit world.
89. Buda. *Striga hermontheca* Benth.
Root (decoction) used in treating leprosy.
90. Bunn and Bunn Habashi. Coffee Beans. *Coffea arabica* L.
Imported from Ethiopia and Kenya. Berries used as styptic, freshly brewed as gahwa beverage, anti-spasmodic, in treating diarrhoea and chest complaints. Coffee was and is still being prepared for use from the husks and not from the beans. This is true in Yemen and in some parts of Arabia and of Ethiopia. The name given to this preparation is *al-kahwa al-kishriyya*, i.e., husk coffee. The husk coffee is sweetish and agreeable in taste and its stimulating effect is even stronger than the bean coffee. In many respects it is superior to the ordinary coffee.
91. Burtuqal. Orange. *Citrus sinensis* L.
Fruit used as food, and in treating abdominal disorders.
92. Cammoun Akhdar; Cammoun; Gandar; Shamar, and Shabat. Cumin; Cummin; Cummins Seeds; Green Cummin; White Cummin; Comino. *Cuminum cyminum* L.
A cultivated annual herb. Fruits; whole herb: powdered aromatic seeds; snuffed for headache or added to porridge as nourishment for invalids. Used also as spice, stomachic, carminative, diuretic, astringent, emmenagogue, stimulant, anti-spasmodic, in treating headache and sterility.
93. Cammoun Aswad; Al-Habba Al-Soda, and Habbat Al-Baraka. Black Cumin; Nigella; Fennel Flower; Nutmeg Flower; Roman Coriander. *Nigella sativa* L.
Cultivated in Sudan or imported from Ethiopia. Presumably named after Prophet's Muhammad woman slave called Baraka, and hence sometimes called Habbat Al-Soda. Dried seeds and oil are used for treating neuralgia, mental illness, headache, splenic enlargement, epigastric pain , chest complaints, as diuretic, emmenagogue, abortifacient, anthelmintic, carminative, stimulant, and as a flavouring agent and spice. It is also alleged to reduce high blood sugar, high blood pressure, treat peptic ulcer, inflammation of the prostate and ureters, and colonic ailments. It is reputed to dispel tape worm and giardia, and is effective in allergic conditions, sinusitis, tuberculosis, and in preventing hair fall. Also it is a common item in bakhur al-taiman (the twin's incense) when used to abort the ill-effects of the evil eye.
94. Dabalab. *Flueggea virosa* (Willd.)Voigt and *Flueggea microcarpa* Blume.
A Shrub of moist grounds. Bark used as astringent and fish poison.
95. Dabkar. *Cratogeomys adansonii* DC.
Wood and stem.
96. Daboba.
Marisa brewing by-product. Used mainly as animal food.
97. Dagra. Unidentified Latin name.
Leaves of a herb used as juice to treat inflammation of the eye.
98. Dahasir. *Indigofera oblongifolia* Forssk.
Undershrub.

99. Daiu. Unidentified Latin name.
Root (of a tree) used decoction in treating syphilis.
100. Dakkai.
A fermented alcoholic beverage in northern Sudan. Dates are incubated in water for spontaneous fermentation for 3-4 days, contents strained to give *dakkai*.
101. Dalaib. Fan Palm. *Borassus aethiopicum* Mart.
Leaves and root powder mixed with shea butter is used to treat bronchitis and chest infection; palm wine is considered a tonic: seed kernel. Used also for water filtration, in treating eye inflammation, chest complaints, as tonic, aphrodisiac, and food.
102. Dalli. *Trianthema salsoloides* Fenzl ex Oliv.
Hairy herb. Whole herb (ashes). Ashy product of repelling odour. Used to treat swellings, fever, and as toothache Analgesic.
103. Dambaza. *Physostigma mesopondicum* Taub.
Pubescent climber. Tuber used in treating dysentery, and as laxative and purgative.
104. Damin 'Ashara and Min Addak. 'A guarantee of 10'. Unidentified Latin name.
Root worn or charred and used for cauterization, and as anti-dote for snake bites and as an amulet.
105. Damin Khamsa. 'A guarantee of 5'. Unidentified Latin name.
A highly trusted root worn around neck or arm, or charred and used for cauterization as anti-dote for snake bites, and as an amulet.
106. Damm Al-Ikhwa and Damm Al-Akhawain. *Daemonorops* sp.
Used in the treatment of liver and loin (renal) pain.
107. Damm Halloof. Wild hog blood.
Applied externally or taken internally in the treatment of leprosy.
108. Damm Kharoof. Sheep blood.
Applied externally or taken internally in treating leprosy.
109. Damsisa. *Ambrosia maritima* L.
A herb that grows in the banks of the Nile in Central and Northern Sudan. Whole plant is used in the treatment of kidney infections, renal stones, Diabetes mellitus, and hypertension.
110. Damsisa; Sheeh; Diqn Al-Shaikh (Arabic); Afartamasia (Arabic); Afsintin (Arabic); Sheeh Roumi (Arabic); Sheeh 'Iraqi (Arabic), and Sheeh Khurasani (Arabic). Wormwood; Santonica; Absinthe; White Artemisia; Desert Wormwood; White Mugwort. *Artemisia absinthium* L. and *Artemisia herba-alba* Asso.
A wild small tree that grows in Sudan and well known by *diqn al-shaikh* (old man's beard). Leaves: powder or decoction used in treating abdominal colic; with *harjal* in dyspepsia and flatulence; rubbed on teething gums. Also used in treating diabetes mellitus, renal colic, indigestion, gonorrhoea, loin (renal) pain, wounds, swellings, urine retention, as fumigation ingredient, laxative, purgative, anthelmintic, stomachic, tonic, menstruation regulator, abortifacient, and oxytocic especially in dispelling a retained placenta.
111. Darfur Remedy. *Marsdenia rubicunda* (K.Schum.)N.E.Br. and *Dregea rubicunda* K.Schum.
Leaves of a plant local to Darfur Region used to treat flatulence and colic. It is known to be poisonous.
112. Darira.
Scented powder usually applied ritually to the head of the bride and bridegroom, and the circumcised. Constituents: *mablab*, *qurunful*, sandalwood, and a variety of liquid perfumes. It is made in three layers: first the head is painted with *karkar* (scented oil), second *mablab*, and third powdered sandalwood are applied. A handkerchief is wound around the head to keep the paste as a crown.
113. Daroat. *Terminalia laxiflora* Engl. & Diels.
A glabrous tree: root; bark; leaves, used to treat inflammation of the eye and as fumigation ingredient.
114. Deina bana. Unidentified Latin name.
Small plant leaves and stem used in treating syphilis.
115. Denobia. Unidentified Latin name.
Tree root (decoction) used in treating syphilis.
116. Dihin Ghanam. Goat's butter.
Snuffed for headache treatment.
117. Dihn Abu-Al-Hussain. Fox's fat.
Used to treat dabas.
118. Dihn Al-Saq. Bone marrow.
Used to treat eye inflammation.
119. Dilka. 'Massage'.
Cosmetic and health restorative paste mainly applied in massage; it is called *dilka murra* (bitter) if unscented and *buhwa* (sweet) if scented. Constituents: dura paste enriched with fumes and vapours of

- burnt talh wood, *klait* wood, *shaff* wood, and paste made of powdered *mablab*, *qurunful*, *dofr*, and sandal wood (this mixture is called *al-marbou'*) and if *luban* and *simbil* are added (then called *al-makbmous*). Also contains varying amounts of musk, *jilad*, and *zabad* to make special *dilka*, and sugar, liquid perfume, *zait al-ni'am*, *surratiya*, *zait sandaliya*, *majmou'*, and *baida* may be added; the paste is used with oil for body massage; also a piece is rubbed on the teething gum to soothe it. Unmarried girls use *dilkat-burtuqal* (orange paste) only. *Dilka* is used as an adjuvant to joint affection treatment regimes, and sometimes in treating diarrhoea.
120. Dodary. Fermented offal.
Animal large intestine stuffed with fat, tied at both ends and left to ferment and dry under cooking smoke.
121. Dofr.
Dried cartilaginous remains of shell-fish. Used in treating fever, wasting disease, and as fumigation ingredient, fertility symbol, and as an amulet.
122. Dome. Dom palm. *Hyphaene thebaica* (L.)Mart.
Tree that grows widely in Eastern, Central and Northern Sudan. Fruit and fronds are used in treating bacterial eye infection, ascites, wounds, and abdominal disorders.
123. Doodmaly and Baigetü.
Fermented and dried caterpillars, later fried or crushed and made stew.
124. Dukhun. Bulrush millet; Pearl millet. *Pennisetum typhoides* (Burm. f.) Stapf & C.E. Hubbard and *Pennisetum glaucum* (L.) R.Br.
Grains used for food. Its porridge is alleged to treat rheumatism.
125. Duma.
An alcoholic beverage in Equatoria and Bahr al-Ghazal regions. Prepared by fermentation of bees' honey by special yeast usually kept secret in families.
126. Dumou' Al-Baqara. Cow's tears.
Tears of a cow infected with cow pox or recently dead of the disease are instilled in the nostrils of healthy cows as a method of prevention by variolation.
127. Dura. Great millet; sorghum. *Sorghum vulgare* Pers.; *Sorghum bicolor* (L.)Moench cv. *Feterita*, and *Sorghum bicolor* var. *caudatum* Stapf cv. *Feterita*.
The principal cultivated staple cereal of the Sudan, grains are used as bread, *balila* or roasted as *farika*. Used a surgical dressing agent, as fertility symbol.
128. Dura Shami and Aish Rif. Maize grains; Corn; Maize; Corn silk; Sweet corn. *Zea mays* L.
Plant grown throughout Sudan. Grains are used as bread, *balila* or roasted. Also used in treating syphilis, kidney infections, renal stones, and in diet.
129. Edgab (Hadandawa). *Aerva lanata* (L.)Schultes and *Achyranthes lanata* L.
Pubescent annual herb. Branches used as decoction for the treatment of headache.
130. Equatoria Fish Poisons. *Mundulea sericea* (Willd.)A.Chev. and *Mundulea suberosa* (DC.)Benth.
Wild or cultivated plant. Branches, seeds and leaves as a fish poison and an agent of homicide.
131. Erkab. Unidentified Latin name.
Seeds of a plant obtained from Gardud Awlad Hamied in Kordofan.
132. Erkawit and Tattas (Hadandawa). *Dodonaea viscosa* Jacq.; *Dodonaea angustifolia* L.f., and *Ptelea viscosa* L.
Shrub or small tree. Branches used in fumigation for joints pain.
133. Eue de Cologne.
Citrus oil in alcohol ingested by adults as an alternative to alcoholic beverages.
134. Faham. Charcoal.
Usually charred (powdered) and used sometimes for surgical dressing.
135. Faki Bila-Dawaya. 'A holy man without an inkstand'. *Leonotis nepitifolia* (L.)R.Br.
Small shrub around al-Obeid. Root worn, chewed, sniffed, or burnt. Used in averting the evil eye, evil spirits, and as fumigation ingredient.
136. Fakouk.
Fumigation assortment for which the patient bathes in *rijla* water before exposure. Constituents mixed with *ghasoul* and *bakbur al-taiman*. Mainly used to avert the evil eye.
137. Fashfash Al-Baqara. Cow's lung.
Pieces of lung of a cow that died recently of cowpox are cut and embedded in incisions in the skin of healthy cows for protection by variolation against the disease.
138. Fashfash Al-Tumsah. Crocodile's lung.
Used in treating allergies.
139. Fasikh.
Fermented fish. Special types of Nile fish namely 'kass' and 'kanwara' are salted and fermented.
140. Fasulia 'Arida. Butter bean; lima bean. *Phaseolus lunatus* L.
141. Fasulia Baida. Haricot bean. *Phaseolus vulgaris* L.
Seeds used in water purification.

142. Feterita. Millet. *Sorghum caudatum* (Hackel) Stapf ex Prain var. *feterita*.
Grains.
143. Fijil. Garden radish. *Raphanus sativus* L.
Leaves, root, seeds used in treating dabas in addition to being food.
144. Filfil Aswad and Filfil Abyad. Black Pepper. *Capsicum annuum* L. and *Piper nigrum* L.
Imported from Egypt, Far East countries and cultivated locally. All parts of fruit except outer cover (black pepper) are used as spice. Remainder of fruit is *filfil abiyad*. When mixed with luban, murr higazi, ginger, and cinnamon, is used to treat asthma and as expectorant.
145. Fornono. Unidentified Latin name.
A plant obtained from Herban. Parts used: twig; gall; fruit.
146. Frowla. Strawberry. *Fragaria chiloensis*.
Fruit.
147. Ful Masri. Bean; broad bean. *Vicia faba* L.
Fruit is a popular food item and for purifying water powder suspension is poured through strainer over turbid.
148. Ful Soya. Soyabean seeds. *Glycine max*.
Seeds and oil.
149. Ful Sudani. Earth nut; groundnuts; peanut. *Arachis hypogaea* L.
Seeds, oil used for food, producing oil and in water purification.
150. Fursa.
Milk native butter: curdled milk is shaken in skins until it gathers at the mouth of the skin. Some is offered to children, but mostly fried to make *samin* (ghee), mixture with honey is a reputable aphrodisiac.
151. Furundu (Darfur) and Kunafa (Nuba Mountains).
Fermented food made of *karkade* in Darfur and Nuba Mountains. *Karkade* seeds are crushed to fine powder, 'atroun (or *waikab*) and water added and mixed to squeeze oil out. The paste is incubated for 10 days until fungal growth is seen, then it is mixed again for 2 days. It is consumed like *kanal* in Darfur (*mullab furundu*), or mixed with dura or *dukibun* dough as *nasha*, *madida* or *luqma* in Nuba Mountains.
152. Gafal. Mecca Myrrh//Mecca Balsam//Balm//Balsam of Gilead. *Commiphora opobalsamum* L.:
Commiphora guidottii and *Commiphora madagascariensis*.
A finely-pubescent shrub that is widespread in Western and Eastern Sudan. Stems are used for fumigation in rheumatic disease.
153. Garingan. Unidentified Latin name.
Bulb of root dried and powdered with cinnamon bark, and used as decoction) as stimulant.
154. Gashaya and Abu Lagoita. *Cleome brachycarpa* DC. and *C. brachycarpa* DC. var. *angustifolia* Gilg.
A perennial herb that grows among rocks in lowlands of Western and Northern Sudan. Whole plant is used for fumigation against epileptic fits.
155. Gazar. Carrot//Wild carrot//Queen Anne's Liace. *Daucus carota* L., subsp. *carota*.
Vegetable cultivated in Sudan, and used for food in salad. Also used as juice, and for promoting hair growth and as tonic.
156. Gharb Al-Wadi. *Veronica amygdalina* Del.
A pubescent shrub or small tree. Root used in treating abdominal disorders, skin disease, swellings, as anti-spasmodic, and poultice.
157. Ghasoul. *Salicornia* sp.
Fumigation assortment including the plant (patient bathes in *rijla* water before exposure), probably imported from India. Whole herb mixed with *fakouk* and *bakbur al-taiman*. Used mainly to avert the evil eye and the evil spirits.
158. Gheleighla; Um Gheleighla; Um Gheleila; Um Ghalighil, and Maghlila (Nuba). *Astroblaena lachnosperma* (Choisy) Hall.f.; *Astripomoea lachnosperma* (Choisy) Meeuse; *Croton zambesicus* Mull.-Arg., and *Croton gratismus* Broun & Massey.
Small, yellow, aromatic seeds (decoction) used as tonic, anti-cough, for treatment of flatulence and colic, in managing malaria, fever, and as an oxytotic.
159. Ghobaira. *Chrozophora plicata* Vahl and *Croton plicatus* Vahl.
Perennial herb grows in the Nile banks. Whole plant is used to speed up wound healing.
160. Ghobbaish. *Guiera senegalensis* J.F. Gmel.
A grey tomentose shrub widespread in Central Sudan. The root is used to treat leprosy. Tea made of leaves is drunk to lower high blood pressure, lower high blood sugar, all types of fevers, and as anti-emetic.
161. Ghrur. Unidentified Latin name.
Root (powdered and sprinkled on ulcers), and used in treating wounds and syphilis.
162. Gilliban. Chickling vetch. *Lathyrus sativus* L.

- Used for water purification.
163. Gir.
Friable rock obtained from Jebel Otoro and other sites in Nuba Region. Constituents: Talcose Serpentine (a decomposed granite). Crushed in water and used to paint the bodies of adolescent at ceremony of "Cutting the Gir" among the Nuba.
164. Glue.
Inhaled by vagrant kids for 'kicks'.
165. Gogmassow (Nigerian). *Mitracarpus villosus* (Sw.); *Spermacoce birta* L.; *Spermacoce villosa* Sw.; *Mitrocarpa scabra* Zucc., and *Staurospermum verticillatum* Schumach. & Thonn.
An annual weed of cultivation in the fallow and arable land of Central and Southern Sudan. Poultice is used to treat leprosy and skin ulcers.
166. Goro (Nigerian). Kola nut. *Cola acuminata* (Pal.) Schott & Endl.
Imported from Nigeria and exclusively used by Nigerians. Seeds used as a tonic and aphrodisiac.
167. Goze Al-Tib. Nutmeg//Mace. *Myristica fragrans* Houtt. and *Myristica moschata* Thumb.
Imported from India. Seeds are added to milk or tea for treatment. Kernel is crushed and added to water and used as flavouring agent, spice, perfume ingredient, as well as in treating impotence, joints affections, and chest complaints. It is a cause of halucination.
168. Grape fruit. Grapefruit. *Citrus paradisi* Macfad.
Parts used: fruits.
169. Guddaim and Basham. *Grewia tenax* Forssk.; *Chadara tenax* Forssk.; *Grewia bopulifolia* Vahl, and *Grewia betulifolia* Juss.
A small tree widespread in the sandy areas of Central and Southern Sudan. Powdered root is used to treat tonsillitis. Ash obtained after burning the root and mixed with maize are applied as poultice for swellings. Fruits are used to treat malaria and anaemia.
170. Gulungan; Kholongan, and Ghorungal. Galangal; Galango. *Alpinia galanga* L. / *Alpinia officinarum* Hance.
Imported from India and China. Rhizome and root are added to cinnamon and used as anti-cough, flavouring agent, in treating common cold and chest complaints.
171. Gutgat; Gudgat, and Abu Rihan. *Geigeria alata* DC. Benth. & Hook. and *Diplostemma alatum* DC.
An erect annual herb that grows in the lowland plains of Western, Central and Northern Sudan. Macerate of whole plant is used as anti-spasmodic.
172. Habba-han; Al-Hal (Arabic), and Al-Hail (Arabic). Cardamom; Ceylon cardamon; Malabar cardamon; small cardamom; lesser cardamom. *Elettaria cardamomum* (L.)Maton; *Amomum cardamomum* L.; *Alpinia cardamomum*, and *Matonia cardamomum*.
Aromatic pungent spice, imported from India and Australia. Seeds, fruits, and capsule are used as spice, carminative, and in flavouring food. It is also used as men tonic, in treatment of leprosy after adding henna and olive oil to it.
173. Habbat Al'Ain. *Cassia absus* L. and *Chamaecrista absus* (L.)Irwin & Barneby.
Black heart-shaped seed with a bright yellow centre. Decoction of crushed seeds used in treating inflamed eyes.
174. Habbat Al-Muluk. Croton oil seed. *Jatropha curcas* L.
Shrub (garden hedge plant). Seeds crushed and taken with milk or water; outer covering poisonous. Used in treating loin (renal) pain, as laxative, purgative, detergent and oil source. It is a known poison.
175. Haikabiet; Sharoba; Gulum, and Murdu. *Capparis tomentosa* L.
Prickly shrub. Fruits, leaves, root, stem (dried and powdered), and bark, alleged to be medicines for man and animal. It is animal food which is sometimes poisonous to camels. It is also used in treating leprosy, syphilis, and wounds.
176. Hajar Maghar.
Constituents are not identified. Used mainly to treat inflammation of the eye.
177. Halawa Tahniya. Sesame sweet cake.
It is a food of high calorific value which is considered as lactogenic and tonic. It is used as also as a poultice.
178. Handal; Duab (Nuer), and Sinat (Hadandawa). Bitter Apple; Bitter Cucumber; Colocynth; Wild Gourd; Bitter Gourd; Vine of Sodom; Wild Watermelon. *Citrullus colocynthis* (L.)Schrad.; *Cucumis colocynthis* L., and *Colocynthis vulgaris* Schrad.
Desert and semi-desert annual wild herb, prostrate or climbing that is widesprad in Sudan. Fruit's and seed's bulb or whole fruit is put on sole of foot, scarred or not, as laxative. Pulp is also used as a drastic purgative. Garlic is added to decoction of handal root to treat snake bites; Seeds are used in making tar (*qutran*), as anti-moth, anti-scorpion stings, anti-snake bite, anti-lice and in treating diarrhoea; the seeds are taken whole to treat diabetes mellitus, gonorrhoea, piles, tuberculosis, skin affections including eczema.

179. Haraz. *Acacia albida* Del. and *Faidherbia albida* (Del.) (Synonymous).
A local wild tree used in treating diarrhoea.
180. Harhar. *Lonchocarpus laxiflorus* Guill. & Perr.
A deciduous tree. Bark used as anthelmintic.
181. Harjal. Argel. *Solenostemma argel* (Del.) Hayne.
A desert wild shrub that grows in Sudan. Leaves used alone or with *sheeb* in indigestion and flatulence. Used in treating epigastric pain, joints affections, fever, common cold, headache, loin pain, puerperal fever, nausea, indigestion, as a laxative, purgative, carminative, abortifacient, anti-spasmodic, and beverage.
182. Harmal. Peganum; Wild Rue; African Rue. *Peganum harmala* L.
A cultivated perennial plant, imported from Egypt and India. Dried seeds, leaves and root used as anthelmintic, narcotic, aphrodisiac, diaphoretic, and as an amulet. It is also alleged to improve memory and concentration especially if combined with mint and cinamon.
183. Hashab. Gum senegal; Gum acacia; Gum arabic; Acacia gum. *Acacia laeta* R.Br. ex Benth.; *Acacia senegal* L., and *Acacia vereke* Guill. & Perrott.
Hashab trees are widespread in Sudan. Its gum is used in treating peptic ulcer, diarrhoea, and in water purification. Recently it is alleged to help patients with end-stage renal failure.
184. Hashish; Bangu, and Kamanga. Cannabis; hemp. *Cannabis sativa* L.
A plant cultivated in Sudan against the law. Leaves, mass, sweets: snuffed or smoked. W. Beam discovered a chemical test for *hashish*: Fourth Report, Wellcome Tropical Research Laboratories, B, Khartoum 1911: 25. Used as a habit-forming plant, and aphrodisiac.
185. Hashishat Al Laimoun. Lemon grass//Citronella grass. *Cymbopogon citratus* DC. Stapf.
Plant imported from India, Kongo, and Madagascar. It is also grown in limited areas of the Sudan. Plant is used for the treatment of kidney infections, stones, lactogenic, sedative, and curtails growth of tumor cells .
186. Haza. *Haplophyllum tuberculata* (Forssk.)A.Juss. and *Ruta tuberculata* Forssk.
Small plant that grows in Northern Sudan. Flowers, leaves and stem (decoction) are used in treating urogenital infections in male and female, flatulence and colic, indigestion, and as an abortifacient, laxative, purgative, and an agent to expel evil spirits.
187. Hazambal (Kasala). Unidentified Latin name.
Tree root used in treating chest complaints.
188. Hernab (Hadandawa). *Carissa edulis* Vahl. and *Carissa pubescens* A.DC.
Wild shrub or small tree. Root (worn, sniffed or burnt); stem used as anti-dote for snake bites, as fumigation ingredient, and in treatment of headache, sunstroke, fever, joints affections, fungal infections, and to expel evil spirits, and for water purification, and as an inhalant (*tas'it*) in psychiatric disorders.
189. Higlig; Sassud (Hadendowa); Shashot (Hadendowa); Rorak (Jebel Daier); Tira (Dilling); Kiri (Al-Liri); Tan (Dinka); Tu (Shulluk); lalobe (fruits); Faith (fruits) (Nuer); Tamr Al Abied, and Balah Al Sahraa. Thorn tree; Desert date; Soapberry. *Balanites aegyptiaca* (L.)Del.; *Balanites roxburghii* Planch., and *Ximenia aegyptiaca* L.
A semi-desert wild tree that grows in Sudan. Seven (7) unripe fruits sucked to induce abortion, and the plant is used in contraception. Root and bark are also used. The Masalit throw powdered wood in small ponds for poisoning fish before catching them. Fat is extracted from kernel of fruit in Darfur, and leaves, and frayed twigs are used as tooth brushes. Plant could be laxative, anti-bilharzial, emetic, anti-diabetic, and detergent. It could aid healing of wounds, and is used as fumigation ingredient, an agent of water purification and a source of salt, and oil. Bark is used to treat gonorrhoea, rheumatism, dysentery, tape worm, and gardia.
190. Hilailij. Unidentified Latin name.
Imported from India through Egypt. Fruits and seeds removed and used with senna as laxative or prugative.
191. Hilba and Um Ushush. Fenugreek; Fenugreek Seeds; Greek Clover; Greek Hay. *Trigonella foenum-graecum* L. and *Trigonella occulta* Del. ex DC.
Plant is grown in Sudan. Seeds are crushed and made into *madidat hilba* (fenugreek porridge). Dried leaves are used in treating epigastric pain, joint affections, abdominal disorders, dysentery, as lactogenic, oxytocic, decreases menstrual cramps, poultice, restorative agent, beverage, food item, tonic, emollient, spice, in water purification, and as fumigation ingredient.
192. Hillaiw and Simaima. *Grewia flavescens* Juss.
A pubescent shrub. Root used in treating tuberculosis.
193. Hilu Mur.
Fermented drink consumed as beverage during Ramadan (Fasting Month). Solid brown crumbled sheets or flakes made of dura, ginger, *ghurungal*, cinamon, coriander, cumin, black cumin, black pepper, cloves, *hilba*, *habba-han*, dates gruel, decoction of *karkade*. All are fermented and baked

- together. For consumption, hilu mur is soaked in water for 2 hours, strained and sweetened.
Contents: 6.1% moisture, 3.7% lactic acid, 14.26% protein, 3.45% ash, 31% sugar, with lactic acid, ethanol and acetic acid as major end products.
194. Himmadi. *Sclerocarya birrea* (A. Rich).
A glabrous tree that grows in Central and Southern Sudan. Leaves and bark are used in the treatment of abdominal disorders, and diarrhoea. Ground bark is used to enhance wound healing, and when mixed with sour milk treats dysentery.
 195. Hinna. Henna//Mignonette Tree. *Lawsonia alba* L. and *Lawsonia inermis* L.
A tree or shrub cultivated in Sudan. Powder is imported from India. The red or reddish-orange pigment made of its leaves is used for dyeing the nails and hair and for decorating feet and hands. Water or vinegar are added to dried powdered leaves to make paste for topical use for cooling skin in fevers, for treatment of urinary tract infection, and for treatment of leprosy, headache, flatulence, colic, and pellagra. It is also believed to treat skin disease, prevent hair falling and treat dandruff. When used with camphor oil, is used to treat migraine.
 196. Hommos and Kabkabaik. Chick-pea//Garbanzo bean//Egyptian bean. *Cicer arietinum* L.
Plant cultivated in several places in Sudan. Fruits and seeds are used for food, and in lowering high blood sugar and in diet.
 197. Humruk (Hadandawa). *Rumex vesicarius* L.
Annual herb. Whole plant used as tonic.
 198. Hurab Al-Hawsa. *Acanthospermum hispidum* D.C.
A local weed. Whole plant or root used in treating bilharzia, and headache.
 199. Hussua.
Food usually given to pregnant women and children in ceremonial occasions. Dura and malt flour are fermented and made as balls. Sometimes honey is added to malt flour (*bussuat 'asal*) and then boiled. Fermentation may give an intoxicating drink; it is usually taken by men and women of religion.
 200. Ihil Al-Tumsah.
Crocodile's penis!. Used as aphrodisiac.
 201. Inab al Nabaq and Anab. *Plicosepalus acaciae* Zucc.; *Loranthus acaciae* Zucc., and *Loranthus gibbosus* A.Rich.
Semi parasitic shrub on Ziziphus and acacia species widespread in Sudan. The fresh whole plant is used as lactogenic and to enhance wound healing.
 202. Iraidibu. *Cassia nigricans* Vahl, Symb.
An annual shrub. Aerial parts used in treating abdominal disorders.
 203. Irq al-Abiyad; Abu Abiyad, and Turaiha. 'White root'. *Pterocarpus lucens* Guill. & Perr.
A root and stem obtained in Talodi in Kordofan, sometimes designed to protect children against the evil eye when worn. Also used in treating syphilis.
 204. Irq Al-Aghbash. 'Grey root'. Unidentified Latin name.
Root.
 205. Irq Al-Ahmar. 'Red root'. Unidentified Latin name.
Root.
 206. Irq Al-Aswad. 'Black root'. Unidentified Latin name.
Root.
 207. Irq Al-Awaiy. *Saba florida* (Benth.).
A glabrous herb. Leaves used in treating abdominal disorders.
 208. Irq Al-Dabib and Abu 'Asal. 'Snake root'; Abu 'asal. *Heliotropium strigosum* Willd. and *Heliotropium cordofanum* Hochst.
Perennial herb widespread throughout Sudan. Root is called Abu 'asal (literally, honey root), and is used as anti-dote against echis bites.
 209. Irq Al-Dahab. *Cephaelis ipecacuanha* (Brot.)Tussac.
Imported from Brazil through Egypt. Root (Irq Al-Dahab) literally 'gold root'. Used in treating dysentery and as emetic.
 210. Irq Al-Damm. 'Blood root'. *Achyranthes aspera* L.
Used in hunting hippos. Root (Irq Al-Damm) literally means 'blood root'.
 211. Irq Al-Halawa. 'Sweet root'. Unidentified Latin name.
Imported from Egypt. Root rubbed up in water and drunk. literally 'sweet root'. Used in treating flatulence and colic.
 212. Irq Al-Hasud. Unidentified Latin name.
A root obtained in Talodi in Kordofan. Parts used: root.
 213. Irq Al-Jibbain; Jibbain; Manyoab (Hadandawa); 'Ain Al-Baqar (Arabic), and Al-Ithma (Arabic). 'Snake root'; 'curdling root'. *Solanum incanum* L. and *Solanum dubium* Fresen.
Root used as anti-dote against snake bites.

214. Irq Al-Kujur. 'Kujur root'. Unidentified Latin name.
Root used in treating gonorrhoea.
215. Irq Al-Mahabba; Abu Tamra; Abu Tamr; Wad Al-Barih, and Ashayib. *Maerua oblongifolia* (Forssk.)A.Rich.; *Alternanthera nodiflora*; *Capparis oblongifolia* Forssk., and *Maerua virgata* Gilg.
A woody shrub that grows in the lowland plains throughout Sudan. Literally plant's name is "the child of yesterday." It is obtained from the vicinity of Al-Obeid. Root usually carried with *Usbar* bush root as a female companion; worn or chewed and applied to bitten site as an anti-dote against scorpion and snake bites. Root is also rubbed on face to attract love of the other sex and hence its main uses are aphrodisiac, impotence treatment and as a tonic. Poultice is used in the treatment of ulcers and swellings.
216. Irq Al-Nal. *Waltheria indica* L. and *Waltheria americana* L.
A grey tomentose herb that grows in Central and Southern Sudan. Root and leaves are used as anti-spasmodic, in treating abdominal disorders, as an analgesic in toothache, tonic, in treating joints affections, diarrhoea, and ulcers.
217. Irq Al-Nar. 'Fire root'. *Euphorbia* spp.
Root used in treating purulent wounds, leprosy, syphilis, common cold, burns, and as toothache analgesic.
218. Irq Al Natsh. *Crotalaria thebaica* Del.
A perennial herb that grows in the lowlands of Northern and Central Sudan. Powdered root is mixed with butter and applied to head for treatment of scabies.
219. Irq Al-Sos. Liquorice; Sweetwood. *Glycyrrhiza glabra* L.
Imported from Egypt and other Mediterranean countries. Root used in treating carious teeth, as beverage, and as treatment of peptic ulcer. It is also used in treating upper respiratory tract infections.
220. Irq Al-Tahina; Dawa Al-Samak, and Tahina. *Tephrosia vogelii* Hook.f.
Fish poison root in Equatoria Region. Cultivated shrub. Seeds, leaves; branches and root used also as insecticide, molluscicide, and arrow poison.
221. Irq Al-Tais. *Tephrosia uniflora* Pers.
An erect annual herb. Root used in treating toothache and as a tonic.
222. Irq Al-Wata. 'Earth root'. Unidentified Latin name.
Dug out of earth, white in colour. Root (possibly) is used in treating *babaq*.
223. Irq Ansabra. Unidentified Latin name.
Root used as amulet.
224. Irq Banda. Unidentified Latin name.
Could be *habl banda* (pumpkin root) which is credited with anti-magic qualities. Root used in homicide and infanticide.
225. Irq Qaqqa. Unidentified Latin name.
Possibly same as *qanqan*. Root sometimes mixed with *cammoun aswad* and tou. Used in homicide, infanticide, as fumigation ingredient, and in exorcising the evil eye.
226. Ishba and Khashaba. *Smilax* Spp.
Imported from Egypt, India and Maghrib. Used in treating syphilis and a tonic.
227. Jardiqa.
A local brownish powdered earth obtained from Jebel Medab, Darfur. Dug out of shallow lake in a volcano crater called Malha. Kababish and Kawahla Arabs add to water for cattle to make them fat. Constituents: Common Salt, Sodium Sulphate, Sodium Bicarbonate, Iron Oxide, Calcium Carbonate and Sodium Carbonate. Used as laxative, purgative, in treating burning micturition, swellings, tonsillitis, splenic enlargement, abdominal disorders, and as animal food, and is recognized to be poisonous.
228. Jawli. Unidentified Latin name.
Imported from India. Resin sold in bricks, and made by heating resin in water. Used as fumigation ingredient.
229. Jild Hirbaa. Cameleon's skin.
Used as fumigation ingredient in treating fever.
230. Jild Qunfut. Hedgehog's skin.
Used as fumigation ingredient in treating fever.
231. Jir Al-Rawwaq. Clarifying lime.
Constituents: mainly montmorillonite, mica, calcite, kaolinite, and traces of feldspar, pyrite. Suspension added to turbid water to purify it.
232. Jiriya.
Sour milk stew.
233. Jirjir and Jarjeer. Garden rocket; roquette; arugula. *Eruca sativa* Miller.
An exclusively salad item. Seeds, leaves, juice and ointment, claimed to aid hair growing on bald

- heads. Main uses include treatment of burns, as aphrodisiac, diuretic, and emmenagogue.
234. Joghana and Abu Sibla. *Diospyros mespiliformis* Hochst.
A grey tomentose tree. Root used in treating leprosy.
235. Joicputch (Mandari).
Small bushy plant. Reported in Buxton J. *Religion and Healing in Mandari*. Oxford University Press 1973:422, 425. Parts used: root (pounded in water). Used as laxative and purgative.
236. Julud.
Skins and hides of animals are sometimes eaten. Raw hide buried in mud to ferment until hair comes off, then striped, sun-dried, and cooked. This practice is seen in Tse-Tse fly belt of Equatoria Region of Southern Sudan. Raw hide eating is also seen during *marisa* drinking occasions in Nuba Mountains.
237. Juwafa. Guava. *Psidium guajava* L.
Fruit tree widely cultivated in Sudan. Fruits and leaves are used in treating diarrhoea, fever, malaria, as anti-tussive, anti-asthmatic, alcohol beverages substrate, and food.
238. Kabab sin. Unidentified Latin name.
Imported from China via Egypt.
239. Kabarait.
Cosmetic mixture of perfumes and an ingredient in cosmetic fumigation. Constituents: sandal wood, *shaff* wood, *kelait* wood, sugar, musk *turki*, and a variety of liquid perfumes.
240. Kabd Al-Ghurab. Crow's liver.
Used in treating eye inflammation.
241. Kabd Al-Jamal. Camel's liver.
Used in treating dysentery.
242. Kabd Al-Tumsah. Crocodile's liver.
Used in treating inflammation of the eye.
243. Kada Gabongre.
Dark red rock obtained from Nuba Region. Constituents: Haematite of sand and clay, Iron Oxide; crushed, mixed with sesame oil and used for anointing ritually the body of males only.
244. Kadada (Kordofan); 'Ud al-Kadad; Kidad, and Akagod. *Dichrostachys nutans* (Pers.)Benth. and *Dichrostachys cinerea* (L.)Wight & Arn.
Shrub root imported by Nigerians, or locally imported from Gardud Awlad Himaid. Used as decoction in treating syphilis, leprosy, wounds and as anti-scorpion stings.
245. Kafar Khushr. Unidentified Latin name.
Crushed up in hot water and applied as paste, or inhaled from a hot watery decoction mixed with 'afna. Used in treating gangrene.
246. Kaff Maryam; Shajarat Al-Khalas, and Shajarat Maryam. Chastity Tree; Rose of Jericho. *Vitex agnus-castus* L. and *Anastatica hierochuntica* L.
Woody Herb when dry takes the characteristic shape of a placenta or a clunched human hand. The dry whole plant or twig is used as an item of sympathetic magic and its tea is taken to ease childbirth.
247. Kafur and Kafur Tayyar. Camphor//Camphire. *Cinnamomum camphora* (L.)Presl; *Camphora officinarum* Bauh., and *Laurus camphora* L.
Imported from India, China and Japan. Camphor mass is always stored with cummin to preserve it. Camphor oil is used in treating mental illness, headache, upper respiratory tract infections, and rheumatism. It is a religious healers' favourite; it is used in ritual fumigation, and Quranic verses are written on blocks of camphor mass.
248. Kaidu Digla (Nuba Mountains).
Bone balls. Fermented animal vertebrae used as food.
249. Kajaik (Southern Sudan).
Fermented fish. Fish cleaned of viscera, salted and sun-dried. Two types known black *kajaik* (best quality) made of *garmout*, *nuak*, *bumar al-hute*, and *surta*, and white *kajaik* made of high quality fish -- *'ijil*, *dabas*, *bayad*, *bulti* and *kbiraish*.
250. Kalando (Hadandawa) and Sabbar. *Aloe sinkatiana* Reynolds.
Fleshy shrub. Leaves as dried mucilaginous substance and used as laxative and purgative.
251. Kalliya (Hadandawa). *Coleus barbatus* (Andr.)Benth.; *Plectranthus barbatus* Andr., and *Coleus forskohlii* (Poir.)Briq.
Fragrant pubescent perennial herb. Leaves as decoction for treating abdominal disorders.
252. Kalto; Alankuwe; Abu Khameira; Mideka (Baqqara); Eil Hasal (Hadandawa); Um Mideka, and Kalto Kalto. *Ximania americana* L.
Obtained from western Sudan. Root used as in treating gonorrhoea, penile gangrene, as laxative, purgative, emetic. It is a recognized poison.
253. Kambu and Shourour.

- Amorphous mass obtained from filtered ashes of burnt qasab (dura stalks) in Sennar and Darfur. In Banda tribe, ash of *ulumba*, millet stalks and water are added to make salt. Constituents: Potash ash-salt, Potassium Chloride, Potassium Carbonate, Potassium Bicarbonate, Potassium Phosphate, Potassium Chloride, Iron Oxide, Alumina, Calcium Sulphate and Magnesium Sulphate. Seeds are reported to be much esteemed in Kordofan and Cairo. Used in treating headache, as a source for salt, as a laxative, purgative, and in treating wounds, urine infection, and as food.
254. Karawiya and Shabat. Caraway; Caraway fruit; Caraway seed; Dill; Indian dill. *Carum carvi* L.; *Anethum graveolens* L.; *Peucedanum graveolens* (L.)Hiern, and *Apium carvi* Crante.
A biennial herb that grows in the Mediterranean region, cultivated in many places in Sudan, and is also imported from India and Egypt. Fruits, seeds, and oil are used as carminative, aromatic, in the treatment of colic, flatulence and dyspepsia, joint affection, sedative for babies, and as lactogenic.
255. Karib (Hadandawa). *Caralluma retrospiciens* (Ehrenb.)N.E.Br. and *Desmidorchis retrospiciens* Ehrenb.
Ehrenb.
Succulent leafless branched herb used whole as decoction in wound treatment.
256. Karkaday; Kororo (Nuba), and Al Injara. Red Sorrel; Roselle; Hibiscus; Sorrel; Rozelle; Indian Sorrel; Jamaican Sorrel; Java Jute. *Hibiscus sabdariffa* L.
An annual plant that is cultivated in several regions of the Sudan. Sepals, seeds, and calyces are used as decoction or macerate. Used in treating diarrhoea, fever, flatulence, colic, chest complaints, tonsillitis, meningitis, impotence, blood sickness, syphilis, as beverage, anti-cough, tonic, diuretic, aphrodisiac, laxative, purgative, and the entire plant is edible. It is used to treat malaria after adding cloves and tamarind.
257. Karkar.
Scented oil. Constituents: *Qurunful*, *mablal*, *sandal* wood, *wadak* or wax, oil, *surratiya*, *mablabiya*, *majmou'*, a variety of liquid perfumes. Used as cream for cosmetic skin management.
258. Karkarab. *Gossypium* spp.
Cotton seed powder. Used for surgical dressing of wounds.
259. Karmadoda; Umm Dueima, and Lugusho (Mandari). *Nauclea latifolia* Smith. and *Sarcocephalus latifolius* (Sm.) Bruce.
A food tuber of a tuberous root of a large shrub or small tree. Fruits, root and bark used in treating dysentery, and as tonic, anti-spasmodic, and anti-tussive.
260. Kasbara. Coriander; Chinese parsley; Cilantro (leaves). *Coriandrum sativum* L.
An annual aromatic shrub cultivated in several regions of Sudan. Fruits and seeds are taken with food or as decoction. Used as carminative, spice, aromatic and flavouring agent, stimulant, and in treating joints affections, dyspepsia, and high blood pressure. It also dispels worms, and together with liquorice and black cummin is used in treating peptic ulcer.
261. Kasiraswil. Unidentified Latin name.
Root (worn, used as cautery or taken internally), the skin of a *waral* (large lizard) is commonly used in conjunction to refresh the site of bite before cautery. Used as anti-dote against snake bites.
262. Kassa (Golo). Unidentified Latin name.
Root used in treating black water fever.
263. Kassava. *Manihot esculenta* (Rantz.).
Grains used for food.
264. Kawal; Harisha; Qalqal, and Soraib. *Cassia tora* sensu auct.; *Senna obtusifolia* (L.)Irwin & Barneby, and *Cassia obtusifolia* L.
A wild annual under-shrub that grows in Central, Southern and Western Sudan, viz. Jebel Marra Region. Kawal is found and used all over Sudan and in the Ethiopian border. Leaves are made into black powder added to *mulab* sauce, e.g., *waika*. Root, seeds, and leaves are dried and fermented to make kawal. Plant is rich in amino acids, vitamins and minerals viz. Calcium. The fermented leaves are even richer- good content of sulfur amino acids, slightly low in lysine, protein content increased from 24% to 30% (H.A.Dirar: 1987). Kawal is used as food, meat substitute, coffee additive, diuretic and in treating ringworm. Leaves are used to dispell worms, laxative, and as poultice for rheumatic pains and skin affections.
265. Khall. Vinegar.
Acetic acid used for preservation and pickling, and in treating cerebrospinal meningitis, headache, fever, splenic enlargement, and in food.
266. Khamira. *Colchicum autumnale* L.
Imported from Egypt. Mixed with sarsaparilla for old syphilis. Used for leavening, and in treating syphilis.
267. Khamirat 'Attar. *Colchicum ritcbii* R.Br.
Imported from Egypt. Rhizome (used with *la'ba murra* against diabetes, and with butter as tonic).
Used in treating diabetes mellitus and as baby tonic.
268. Khara Hadid.

- Refuse "slag" iron taken from the smelting furnace and made decoction with other drugs. Used in treating syphilis, and as a tonic.
269. Kharasmi. Worm seed. Unidentified Latin name.
Seeds used in treating gonorrhoea.
270. Kharata. *Convolvulus deserti* Hochst. & Steud. and *Convolvulus microphyllus* Choisy.
A hirsute herb that grows in shallow sandy soil of Western and Eastern Sudan. The maceration of the root is used as a gargle to treat gingivitis.
271. Khardal Aswad. Black mustard; Mustard seeds. *Brassica nigra* (L.)Koch; *Sinapis nigra* L., and *Brassica sinapioides* Roth.
Seeds of an annual plant cultivated in Sudan. Known as spice, and emetic if used in large amount.
272. Khass. Lettuce. *Lactuca sativa* L. var *longifolia*.
Used whole for food.
273. Khilla; Bizrat Al-Khilla, and Khilla Baladiya. Visnaga. *Ammi visnaga* (L.)Lam.
An annual plant that is cultivated in Sudan. Seeds are used in treating burning micturition, loin (renal) pain, as diuretic, and ureteric muscle relaxant, and for the treatment of peptic ulcer.
274. Khimais Twaira.
Literally 'five birds'. It is an enriched *kisra 'asala*. Contents: millet flour, millet malt, sesame (or groundnuts), sugar and salt, eaten with little water added; a common travellers' food in western Sudan.
275. Khirwi'; Bullas (Hadandawa), and Hurua (Kordofan). Castor oil plant; Palma christi; Castor bean plant. *Ricinus communis* L.
A shrub or tall herb that is cultivated in Sudan. Seeds and crushed leaves are used in treating guinea worm, and as laxative, purgative, abortifacient, source of oil, and poison. It is used as poultice to enhance fractures healing. Leaves are used in treating swellings.
276. Khyiar. Cucumber. *Cucumis sativus* L.
Fruits used by Arabs in treating stomach disorders and urinary problems. It is a popular salad item.
277. Khyiar Shanbar. Cassia pulp. *Cassia fistula* L.
An ornamental plant imported from Egypt. Fruit's bulb used to treat joints affections, and as laxative, and purgative.
278. Khoukh. Peach. *Prunus persica* .
Fruit used for food.
279. Khumra.
A northern Sudanese potpourri usually kept in an Indian-made bowl called *buq* (a polychrome Meccan vessel). Constituents: *Mahlab*, lemon, *kabarait*, any available liquid perfumes, sandal wood, musk, *dojr*, musk *turki*, *zabad*, *jilad*, cloves, cardamom (*khumrat hababan*). It is an important item in perfume, and massage.
280. Kilaimidab (Hadandawa). *Linaria sagittata* (Poir.)Hook.f.; *Antirrhinum sagittatum* Poir., and *Kickxia heterophylla* (Schousb.)Dandy.
Spinescent climbing perennial herb. Whole plant used.
281. Kirili (Mandari). *Harrisonia abyssinica* Oliv.
Leaves used in treating chest complaints and as a marisa additive.
282. Kirof (Mandari) and Habil. *Combretum fragrans* F.Hoffm.; *Combretum adenogonium* Steud. ex A.Rich.; *Combretum multispicatum* Engl. & Diels, and *Combretum hartmannianum* Schweinf.
A glabrous tree that grows in Central Sudan. Bark is used in treating leprosy and jaundice. Root is used in fumigation "to cleanse a dead person's possessions".
283. Kisra.
A variety of bread and porridge made of dura and millet 'ajin (fermented dough), mainly thin sheets baked on *saj* or *doka* (hot plate) and eaten with *mulab* or *tabikb* (sauce, soup, stew), milk, robe (curdled milk). Composition: 14% protein, 1.5% ash, 2.5% crude fibre, 1% sugar on dry matter basis, moisture 50% (H.A. Dirar: 1987). Also used for water purification.
284. Kisra 'Asala.
Sweet or honey bread. Whole millet grain milled or querned and made into stiff porridge (*kisra hamra*). A little millet malt is added and the fermented dough is baked into *kisrat kas*. This is sun-dried and crumbled into smaller flakes. Eaten after adding water, no salt or sugar; a common travellers' food.
285. Kisra Baida.
A fermented millet bread of western Sudan.
286. Kitir. *Acacia mellifera* (Vahl)Benth.
Shrub or tree. Bark and leaves used in treating joints affections.
287. Kohl. Antimony.
Black antimony eye-liner powder, used cosmetically for edging eyes, for treating eye disease including granular lids, improving eye sight, and staining tattoos and facial scars permanently black;

- obtained from India where it is called *surma*. One variety is called *kobl al-malayika* (angels' *kobl*) or white *kobl*. Constituents: Antimony Sulphate, possibly also lead sulphate and oxides as adulterants; powdered; mixed with powdered sugar or with *zabad malih* in treatment; sold raw. Used also in averting the evil eye.
288. Kong Buoi. Unidentified Latin name.
Snake root, used in Diling, Kordofan Region. Root used as an anti-dote against snake bites.
289. Kowa Kowari. Unidentified Latin name.
A plant used in Herban, Kordofan Region. Possibly root used as anti-dote against snake bites.
290. Kul. Unidentified Latin name.
Food additive in Sennar and Darfur. Whole herb and flower, buried to rot, beaten up mixed with salt, and added to *mullab* (stew), used in managing the evil eye.
291. Kulkul and Ligna (Nigerian). *Bauhinia rufescens* Lam.; *Adenolobus rufescens* L., and *Ptilostigma rufescens* L.
A local pubescent shrub that grows throughout Central and Southern Sudan. Root is also imported by Nigerians. Leaves, seeds, root (Quranic verses inscribed, boiled and decoction drunk) used in treating leprosy, diabetes mellitus, and as analgesic in toothache.
292. Kumba and Gambo. *Xylophia aethiopica* (Dunal)A.Rich.
Probably introduced by Nigerians from Central African countries, frequently used to adulterate coffee. Pods used as coffee additive and stomachic.
293. Kumithra. Pear. *Pyrus communis*.
Fruit used for food.
294. Kunush. Unidentified Latin name.
Imported from Persia. Root (powdered) used in treating syphilis.
295. Kurdan; Kurdala; Amyok (Dinka); Myook (Dinka), and 'Irq al-Sharba. *Courbonia virgata* Brongn.; *Courbonia decumbens* Brongn., and *Maerua pseudopetalosa* (Gilg & Bened.)DeWolf.
Root twirled in turbid water until mud settles; when chewed it renders water sweet and cold when drunk; leaves; stem; fruits; frequently consumed during famines. Used as hyena poison, salt source, and emetic.
296. Kurkum. Turmeric; Curcuma. *Curcuma longa* L.; *Curcuma domestica* Vahl., and *Amomum curcuma* Jacq.
A plant with thick rhizomes, imported from India. Rhizome and yellow root used as dye for bride's body care. Lotion gives body yellow colour specially when used with *dukbbhan*. Used as spice, cosmetic, and as a favouring and dyeing agent, and in treating biliary tract disorders, chest complaints, and swellings.
297. Kursan; Mikkhkhit; Shajar Al-Mikhhkhit, and Um Kheit. Assyrian plum. *Boscia senegalensis* Lam. ex Poir.; *Podoria senegalensis* Pers., and *Boscia octandra* Hochst. ex Rodlk.
A local wild shrub or small tree that grows in the sandy low plains of Sudan. The fruits are frequently consumed during famines. Bark, fruit (berries), leaves, and seeds are used in treating syphilis, chest complaints, indigestion, bilharzia, joints affections, tuberculosis, in water purification, as poultice, food, anthelmintic, and anti-inflammatory. The emulsion of the leaves is used as eye-wash.
298. La'ba Murra. Bryonia. *Bryonia cretica* L.
A climbing herb imported from Egypt. Rhizome used to treat skin disease, diabetes mellitus, chest complaints, and as newborn skin paint.
299. La'oat; Gamerot, and Uod. *Acacia oerfota* (Forssk.) Schweinf and *Acacia nubica* Benth.
A lowland spinescent shrub that grows wild in northern and central Sudan. The stem and branches are used in the treatment of rheumatic pain, , and joint affections. The root is used in fumigation and as an anti-dote for scorpion bite, and poultice.
300. Laban. Milk.
Is a popular drug carrier, and fertility symbol.
301. Laban Al-Baqar. Cow's milk.
Medicinally used to treat dysentery.
302. Laban Al-Ghanam. Goats' milk.
Used in treating measles, leprosy, skin disease, syphilis, and diarrhoea.
303. Laban Al-Humar. Donkey's milk.
Used in treating whooping cough.
304. Laban Al-Ibil. Camel's milk.
Used in treating enlarged spleens (see *al-qaris*), and ascites (*istisqaa*) when camel urine is added.
305. Laban Al-Umm. Mother's milk.
Considered cooked in breast. Used for treating diarrhoea, and eye inflammation.
306. Laban Rayib. Yoghourt.
Onion's squash or qarad pods added for children's diarrhoea.
307. Laham Abu Al-Dalaq.
The meat of a rare black bird used in treating rabies.

308. Laham Al-Kadis. Cat's meat.
Used in treating whooping cough and syphilis.
309. Laham Al-Qunfut. Porcupine's meat.
Used as an oxytocic.
310. Laimoon. Lemon/ /Lime. *Citrus aurantifolia* (Christm.)Swing.
Used as gargle in tonsillitis, and as an anti-septic toothbrush. It is believed to be an anti-dote for poisons, and is used as a water flavouring agent. It is believed to be helpful in upper respiratory tract infections. Boiled leaves are used to reduce blood sugar.
311. Lakhokha.
A massage paste made of dura and other ingredients. Constituents: Dura porridge and oil. Ground rice or lupin added to help in application. Mainly used for massage.
312. Lakhokhat Bayad Al-Baid.
A massage paste that helps the oily face. Constituents: Egg white.
313. Lakhokhat Khamirat Al-Biera.
A face beautifacient massage paste. Constituents: Beer yeast and yoghurt.
314. Lakhokhat Safar Al-Baid.
A massage paste that stretches the face. Constituents: egg yolk.
315. Lappa (Azande). *Erythrophleum guineense* G.Don and *Erythrophleum suaveolens* (Guill. & Perr.)Brenan.
Seeds and pods used in divination, as poison mainly as arrow poison.
316. Lasaf. Caper tree. *Capparis cartilaginea* Decne; *Capparis galeata* Fresen., and *Capparis spinosa* L.
Mountainous slopes shrub. Leaves chewed as toothache analgesic, for treatment of eye and gingival infections, and used as a poultice for the treatment of swellings, and in purifying water.
317. Liba and Sarsoub.
Colostrum of animals or human beings used as food.
318. Lidan. Unidentified Latin name.
A root obtained in Herban in Kordofan.
319. Likbalie. Unidentified Latin name.
Leaves, root (fumigant), used in treating syphilis, leprosy, and wounds.
320. Loz. Almonds. *Prunus amygdalus*.
Taken as *qabmat loz* (coffee with milk, rice, sugar, and crushed almonds) as beverage or porridge in Red Sea Region viz. in *lailiyya* of the Mirghaniyya sufi order. Crushed seeds used in treating cough, chest complaints. It is alleged to increase the amount of ejaculated semen.
321. Lu'ab Al-Baqara. Cow's saliva.
The saliva of a cow that died recently of cow pox is transferred in a cotton gauze to healthy cows as variolation to protect them against the disease.
322. Luba 'Afin and Lubia 'Afin. Red beans. *Dolichos lablam* L.; *Dolichos pseudopachyrhizus* Harms; *Lablab niger* Medic.; *Lablab purpureus* (L.)Sweet, and *Neorautanenia mitis* (A.Rich.)Verdc.
A fodder crop beans commonly used as *balila*. Also used whole in water purification, and as anthelmintic.
323. Luban. *Commiphora pedunculata* (Kotschy & Peyr.)Engl.
Imported resinous balls obtained from a wild plant, used as chewing gum and burnt with incense. Gum-resin mainly used as fumigation ingredient.
324. Luban Ladin; Luban Dhakar, and Taraq Taraq. Olibanum; Frakincense; Oil of Lebanon. *Boswellia carteri* Bird.; *Boswellia sacra* Fleuck.; *Boswellia papyrifera* Del. Hochst., and *Amyris papyrifera* Del.
A small tree that grows in Central and Southern Sudan, also imported from Saudi Arabia, and North Africa. Resin, bark, and gum used for chewing and an important ingredient of *bakbur* (ritual incense). When charred, the black powder is used as kohl (cosmetic eye-liner). It is used as expectorant, and in treating upper respiratory tract infections. Luban Dhakar (male Frakincense) is light-coloured and globular. It is the one used for medicinal purposes.
325. Lubia Taiba and Lubia Tayyib. *Lobelia inflata*.
Commonly used as *balila*. Seeds used for food and in treating inflamed eyes.
326. Lulu and Rak (Dinka). Butter tree; shea butter; galam butter. *Butyrospermum parkii* (Gaertn.f.)Hepper and *Vitellaria paradoxa* Gaertn.f.
Fruit bulb, seeds, and oil massaged for relief of sciatica pain. Used in treating sciatica, for food and as oil source.
327. Ma Zamzam.
Zamzam water, obtained from Zamzam spring inside the Holy Mosque compound in Makka, Saudi Arabia, a popular panacea.
328. Maghar.
Dark red rock obtained from Soderi. Picked up amongst derelict houses on top of mountains.
Constituents: a haematite of sand and clay, Iron Oxide.
329. Maghar Akhdar.

- Green Ochre obtained from Jebel Kan in Nuba Mountains. Constituents: Green friable lumps of sand and clay, Sodium Chloride, Iron Oxide. Crushed, mixed with sesame oil and used for anointing the body ritually and as a routine.
330. Mahareb; Hamareb, and Halfa Barr (Egypt). Camel's hay. *Cymbopogon proximus* (L.) Spreng.; *Cymbopogon schoenanthus* (L.) Spreng. subsp. *proximus* (Hochst.) Maire & Weiller, and *Andropogon proximus* Hochst. ex A. Rich.
A wild desert perennial herb that grows wild throughout central and northern Sudan. Infusion of leaves, stem and whole plant is used in treating kidney infections, gout, prostatic enlargement, as carminative, aromatic, anti-rheumatic, to dispel worms, antispasmodic, diuretic, and in treating joint pains.
331. Mahlab. *Hypoestes verticillaris* (L.) Soland. ex Roem. & Schultes and *Hypoestes cancellate* Nees.
Imported from Syria and Egypt. Seeds (decoction), powder rubbed on child's gum or scalp. Used in treating ear diseases, diarrhoea, gonorrhoea, as anti-spasmodic, in water purification, as perfume ingredient in massage.
332. Mahogany. Mahogany // Senegal Mahogany. *Khaya senegalensis* (Desr.) A. Juss.
Tree that grows in Southern Sudan. Macerate of bark is used in treating malaria, liver affections, abdominal disorders, and sinusitis. Leaves are used to treat skin affections, abdominal disorders and trachoma .
333. Majmou'.
An imported "pot-pourri" scent. Mainly clove and sandal oil.
334. Manqa. Mango. *Mangifera indica* L.
Fruit pulp, seed kernels, young leaves and shoots used in treating abdominal disorders.
335. Maqar Ahmar. Red Ochre.
Obtained from Jebel Urunu, Jebel Kan and Otoro in Nuba Region. Constituents: Red friable lumps of sand and clay, Sodium Chloride, Iron Oxide. Crushed, mixed with sesame oil and used for anointing the body ritually and as a routine.
336. Marakh and Ajwam. *Leptadenia pyrotechnica* (Forssk.); *Leptadenia spartium* Wight., and *Cynanchum pyrotechnicum* Forssk.
A lowland erect shrub widespread in Northern and Central Sudan. Whole plant is used in treatment. Macerate of the root is used to treat urine retention. Stems are used in fumigation to treat rheumatic pains and sciatica.
337. Mararat Al-Tumsah. Crocodile's bile.
Used to treat eye inflammation.
338. Mararat Ghazal. Gazelle's bile.
Used to treat eye inflammation.
339. Mardagoash; Ardagoash, and Bardagoash. Wild marjoram // Sweet marjoram // Knotted marjoram. *Origanum majorana* L.; *Origanum vulgare* L., and *Origanum hortensis* Moench.
Herb that grows in the Mediterranean region. It is imported and used whole in fumigation against asthma, and migraine.
340. Mardud. Unidentified Latin name.
Aphrodisiac.
341. Marisa; Baghu; Baqaniya; Bilbil; Bouza; Um-Bilbil; Um-Darbiq, and Darbiq.
A fermented alcoholic beverage and a staple food for many tribes especially in southern, western and south eastern Sudan. *Um-Bilbil* is considered a superior kind of *marisa*, while *baqaniya* a weak type usually consumed by the pious, being considered non-alcoholic. Brewed at home for family consumption or in Indayas (brew houses), main substrate is dura, characterized by high suspended starch matter. Contents include: B vitamins, 13.3% crude protein, 2.58% ash, 4.5% fat, 2% crude fibre on dry matter basis (H.A. Dirar: 1987). *Mushuk* is the residue left after *marisa* is filtered, this is used in animal fattening. The substance of *marisa* is called *kujana* and *kajna*. *Marisa* is frequently used in intoxicating monkeys before hunting. *Daboba* is *marisa* in its first stages when water is added to *sourij*. *Marisa* is often used as drug carrier, diuretic, and in treating gonorrhoea.
342. Mastica; Mastiki, and Mistika. Mastic; Mastic Tree; Mastic Gum. *Pistacia lentiscus* L.
A small tree whose resinous part is imported from Egypt and other North African countries. Bark oleoresin, leaves, seeds, and fruits are used to treat epigastric pain, chest complaints, fits, bad breath, as toothache analgesic and chewing gum. It is also used in food flavouring and scenting coffee cups.
343. Mekah. *Dobera glabra* L.
A local plant used whole for treating swellings.
344. Mia. Unidentified Latin name.
Imported from Eden via Egypt. Mainly used as fumigation ingredient.
345. Mihaijriya. *Celtis integrifolia* Lam.
A large deciduous tree. Bark used in treating abdominal disorders.
346. Mihaya. Erasure.

- Quranic verses written on wooden tablet or china plate in ink or honey.
347. Milh Ahmar.
Reddish powdery rock obtained from Um-Gawasir, Soderi and Dongola regions. Constituents: sand and clay, Sodium Chloride, Iron Oxide, Calcium Carbonate. Salts, animal and human food.
348. Milh Al-Qa'a.
Earth obtained from Dongola desert and Soderi. Constituents: impure common salt containing considerable potassium, also Sodium Carbonate, Sodium Bicarbonate, Sodium Chloride, Sodium Sulphate, Calcium Carbonate. Hawawir and Kababish Arabs use it in cooking *mulab*. Used in treating headache, joints affections, and splenic enlargement.
349. Milh Al-Qa'ab.
The earth of Qa'ab al-Laqiya valley west of Dongola in Northern Sudan. Constituents: Qa'ab salt used in treating headache, and joints affections.
350. Milh Sharshar.
White crystalline salt obtained from Al-Qar Sharshar near Soderi. Constituents: Sand and Clay, Sodium Chloride and Sodium Sulphate. Salts animal and human food in Dar Hamid in Western Sudan.
351. Milh Ta'am.
Common salt obtained from Port Sudan. Constituents: Sodium Chloride. Used in food and for preserving fish.
352. Milh Zaqqoum.
Suppositories used as anti-inflammatory.
353. Milqat. Jalap. *Ipomoeahederacea* Jacq.
Twiner imported from India, Egypt. Seeds recognized as a poison, laxative, purgative, oxytocic, and in treating sterility.
354. Miris.
A popular fermented offals food in Kordofan and Darfur Regions. Animal fat and offals are incubated in an earthenware and left to ferment until foul, then pounded to soft paste and used as such (boiled with beans, or okra, onions, spices etc. to make sauce.
355. Mishmish. Apricot. *Prunus armeniaca* L.
Fruit used for food.
356. Misk. Musk.
Perfume obtained from Musk deer (*Moschus Moschiferus*). Imported from the Far East. Best types are the Chinese and Tibetan, musk in pods or musk in grain.
357. Molaita. *Reichardia tingitana* (L.)Roth.
Wild herb. Leaves alledged to treat diabetes mellitus.
358. Molokhiya and Khudra. Jew's mallow. *Corchorus olitorius* L.
Used in *mulab* (gravy) either fresh or dried. Stalks, leaves, seeds used in water purification, and as abortifacient.
359. Moura. *Stylochiton borumensis* N.E.; *Stylochiton lobatus* N.E., and *Stylochiton sensu* N.E.
Erect annual herb that grows in the lowland and plains of Central Sudan. The roots are used to relief the pain of scorpion stings.
360. Moze. Banana; Plantain. *Musa nana* var. Kavendishi; *Musa sapientum*, and *Musa paradisiaca* Walk & Sill.
Tropical plant that grows widely in Sudan. Eaten as fruit and the raw fruit is used to treat peptic ulcer.
361. Mughat and Inab Al Diek. Black night shade. *Solanum nigrum* L. and *Solanum nodiflorum* Jacq.
Fruit of this plant is taken as powder for the treatment of abdominal disorders.
362. Mulah and Tabikh.
Gravy, soups or stew. Different dishes are made of meat, vegetables or sour milk, with onions, oil, tomato puree, salted and spiced and served with fresh salad.
363. Murr; Murr Higazi, and Murrah. Myrrh. *Commiphora mukul* (Hook. & Stocks)Engl.; *Commiphora wightii* (Arn.)Bhandari, and *Commiphora myrrha* (Nees)Engl.
Imported from Hejaz, some species grow in Sudan. Stem and its gum-resin are used as fumigation ingredients, in treatment of wounds, gingivitis, swellings, flatulence and colics, as digestive, anti-spasmodic and stomachic.
364. Mushuk.
Marisa biproduct.
365. Musran.
Fermented and dried animal small intestines. Pounded and added to boiling water to make sauce.
366. Na'anaa; Nada; Hersha, and Murkab. *Peristrophe bicalyculata* (Retz.); *Dianthera bicalyculata* Retz.; *Justicia bicalyculata* (Retz.), and *Peristrophe pilosa* Turritt, Kew Bull.
Erect annual herb that grows in the watercatchment areas of Central and Southern Sudan. Macerate of whole plant is used in the treatment of ear infection.

367. Na'na'. Peppermint; Mint; Spearmint; Common Green Mint; Horsemint; Fieldmint; Aquatic Mint. *Mentha x piperita* L.; *Mentha viridis* (L.)L., and *Mentha spicata* L.
Leaves of an aromatic herb used for its nice aroma when added to tea and food. Also used as carminative, anti-flatulent, sedative, and anti-spasmodic. It is alleged to lower blood cholesterol, and helps in treating abdominal and urinary tract disorders.
368. Nabaq; Sidr; Sidra; Sidir; Qarat (Hadandawa), and Kanar. Christ's Thorn; Lore-tree. *Ziziphus spina-christi* L. Willd.; *Rhamnus spina-christi* L., and *Ziziphus africana* Mill.
A thorny shrub or tree, wild and cultivated in Central and Northern Sudan. Fruits (nabaq), bark, and root are used in treating wounds, cough, diarrhoea, leprosy, gonorrhoea, as laxative, purgative, mouth wash, anthelmintic, anti-snake bite, and anti-spasmodic. Leaves are used to treat hair fall and dandruff and in washing the dead. Oil is used as a lotion in rheumatic pains.
369. Nabiet.
A winter beverage in Dongola Region. Dura malt is added (in a piece of cloth) to fermented dates syrup, sealed in earthenware for 3-4 days and buried in the ground for fermentation.
370. Nadiana. *Plumbago zeylanica* L.
A glabrous herb. Whole plant used in treating leprosy.
371. Nakhwa . Bishop's Weed. *Trachyspermum ammi* and *Carum ajowan*.
Imported from India. Seeds mixed with honey and milk and used to anoint penis as prophylaxis against soft sores after coitus during menses. Used as laxative, purgative, and in treating gonorrhoea.
372. Nal. *Cymbopogon nervatus* (Hochst.)Chiov.
Leaves and stalks used to flavour water.
373. Nasha and Madida.
Drikable dura paste or thin porridge made of dura or millet.
374. Neem. Nim; Neem; Indian Lilac; Margosa Tree; Azedarach. *Azadirachta indica* A.Juss. and *Melia azadirachta* L.
Tree originally imported from India and is now widespread in Sudan. Stem, bark, and leaves are used as poultice and applied for treatment of *Abu-Diqnan Dayira* (mumps). Frayed twigs are used as tooth brushes. Also used in treating skin infections and diseases including eczema, measles, chicken pox, malaria and swellings (*dabas*), as insect repellent, anti-lice, and repellent of worms when taking on an empty stomach.
375. Nimlol. Unidentified Latin name.
A plant used in Herban, Kordofan Region. Parts used: stem.
376. Nirwan. Unidentified Latin name.
A plant obtained from Herban. Parts used: twig.
377. Noro. Unidentified Latin name.
Parts used: root; corn.
378. Nuba Kartilla.
Stratified crystal concentrate obtained from Jebel Otoro of Nuba Mountains. Constituents: Sand and clay, Sodium Carbonate, Sodium Bicarbonate, Sodium Sulphate and Iron Oxide.
379. Papai. Papaya; Pawpaw. *Carica papaya* L.
Parts used: fruit.
380. Porsho (Mandari). *Ziziphus* spp.
Small tree. Tuberous root (eaten), and used in treating diarrhoea.
381. Qalafonia. Colophony; Pine resin. *Pinus* sp.
Imported from India. Mass used in soldering and a recognized poison.
382. Qaliyat 'Aish.
Torrified dura. Maserate. Used in treating cough.
383. Qamh. Wheat. *Triticum sativum* Lam. and *Triticum aestivum* L.
Grains used for bread-making, roasted or boiled as *balila*. Used in treating gonorrhoea and dysentery.
384. Qanq. *Clerodendron capitatum* (Willd.) Schum.
A local grey tomentose herb, powder added to meat. Root used as tonic.
385. Qara' Kosa. *Cucurbita pepo* L.
Fruits used for food.
386. Qara'; Dubbaa (Arabic), and Yaqtin (Arabic). Pumpkin; Marrow; Winter squash. *Cucurbita maxima* Lam. and *Cucurbita pepo* L.
A plant noted in Quran as a wound dressing, used locally as a surgical dressing for a burst abdomen. Parts used: fruits; seeds; leaves (infusion). When eaten, the skin odour becomes mosquito repellent. *Um-Jalabi*, a type of pumpkin, is made inkstand for writing Quranic verses as treatment for skin diseases. Used in surgical dressing, as anthelmintic, in treating hypertension, skin disease, mental illness, allergy, splenic enlargement, and as tonic. Seeds are used to dispel tape worm, *Ascaris*, *gardia*. When senna and cummin are added, it is used to treat dysentery.
387. Qarad Abu-'Arida; Sunt, and Qarad. Sunt Tree; Gum Arabic; Gum Acacia. *Acacia nilotica* (L.)Willd. ex

- Del. subsp. *nilotica*; *Acacia arabica* (L.)Willd.; *Acacia nilotica* subsp. *nilotica*; *Acacia vera* Willd.; *Acacia vereke* Guill. & Perr.; *Acacia seyal* Del.; *Acacia seyal* Del. Var, fistula Schweinf. Oliv.; *Acacia seyal* Del. var. *seyal*; *Acacia nilotica* subsp. *nilotica*, and *Acacia senegal* (L.)Willd.
- A wild or cultivated tree that grows in Northern and Central Sudan. Fruits, pods (decoction), bark; leaves, and gum are used as a popular panacea. Used topically to treat fever, in tanning, astringent, anti-diahrhoeal, for sore throat, as fumigation ingredient, in treating syphilis, leprosy, piles, gonorrhoea, diabetes mellitus, blood sickness, impetigo, and cerebro-spinal meningitis.
- Gum (*sumq*) of different varieties is tapped from *Hashab*, *Sunut*, and *Talb* (*talba hamra* and *talba baida*) trees, and used in treating chest complaints, cough and tonsillitis.
388. Qaris.
Fermented camel milk. Produces as high as 2% alcohol hence slightly intoxicant; it could be the only food available for nomads and camel herders. For treatment of Leshmaniasis (kala-azar) 12 kinds of spices (medicinal ingredients) are added to it and incubated in earthenware under the ground for 12 days. Patient is fed on this for 12 days.
389. Qarn Khartit. Rhinoceros horn.
Horn powdered and used as aphrodisiac.
390. Qat Hindi. Unidentified Latin name.
Imported from India via Egypt. Rubbed up with *damm al-Ikbwa* on indolent sores and tropical ulcers.
391. Qatb and Qadb. *Lotus arabicu* s L.
Animal food which is known to be cattle poison.
392. Qirfa; Qirfat Al-Damm, and Dar sini (Arabic). Cinnamon; Ceylon cinnamon. *Cinnamomum zeylanicum* Blume and *Cinnamomum verum* J.S. Persl.
A spicy bark imported from India. Bark is used in oil and in treating blood sickness, urine retention, and as a flavouring agent. Bark is used to treat kidney infections, diabetes mellitus, tonic for memory and concentration, and expectorant.
393. Qirfat Al-Dud; Takirni, and Umm Takirni. Worm bark. *Albizia anthelmintica* Brongn.
Tree widespread in Sudan. Bark powdered, mixed with milk and used as anthelmintic to dispel tape worm, treat dysentery, malaria, and eye infections. Saponins from bark are effective as molluscicidal, larvicidal, and wormicidal.
394. Qishr Al-Baid. Egg shell.
powdered and sniffed in treating epistaxic.
395. Qishta. *Annona senegalensis* Pers.
Fruit of a local shrub or small tree, used as a poultice and as anti-lice.
396. Qurunful and Mismar (Arabic). Cloves. *Eugenia caryophyllus* (Spruce)Bullock; *Syzygium aromaticum* (L.)Merr. & Perry; *Eugenia caryophyllata* Thunb., and *Eugenia aromatica* (L.) Bail.
Evergreen trees that grow in India. Cloves fruits are popular panacea for reducing pain in teething, headache, toothache, common cold, leprosy, gingivitis, and ear disease. It is also used to improve mouth odour, decrease high blood pressure and as a sedative. Fruits are sometimes smoked in a pipe to alleviate cough.
397. Qutran.
Tar made of colocynth. The Kababish obtain it from the seeds of the water melon by a simple process of distillatio per descensum. See C.G. Seligman. *Sudan Notes and Records*; 1918; 1(3): page 202, for an illustrated description of the process. Used in dressing wounds.
398. Qutun. Cotton. *Gossypium barbadense* L.
This an oil source and animal food.
399. Rab'a and Irq al-Rab'a. *Trianthema pentandra* L. and *Zaleya pentandra* (L.)Jeffrey.
Prostate pubescent herb widespread in Sudan. The root is powdered before use. Whoel plant is used as emetic, purgative, laxative, in treating gonorrhoea and scorpion stings. It is reported to cause acute nephritis and bloody diarrhoea in man.
400. Rabal. *Pulicaria undulata* (Linn.) C.A. Mey.
Plant widespread throughout Northern and Central Sudan. Whole plant is used as poultice for the treatment of baldness.
401. Ramad.
Plant's ash dusted over turbid water to purify it It is also dusted over smallpox sores (when Banona wept her brother Amara she wanted him to die in battle shrouded in blood and not with smallpox dusted with ash.) .
402. Raml. Sand.
Used in dressing wounds.
403. Ras Al-Qoam.
Obtained from Jebel Marra area. Used in treating inflamed eyes.
404. Ras Al-Shayib; Danab Al-Kalb, and Shaiba. Cockscomb; Quial grass. *Celosia argentea* L.

- A glabrous weed that grows in Central and Southern Sudan. Leaves are used as anthelmintic to dispel worms.
405. Rashad. Pepper cress; Garden cress; Pepper grass; Pepperwort; Pepperweed. *Senebiera nilotica* (Del.)DC.; *Coronopus niloticus* (Del.)Spreng., and *Lepidium sativum* L.
Local herb and sometimes imported from Egypt. Aromatic seeds added to goats' milk and drunk as a cure for dysentery. Also used as rectal enema, in treating eye disease, skin affections, as stomachic, and anthelmintic. Poultice made of seeds is used for plastering broken bones, and taken as powder for abdominal ailments.
406. Rawath Al-Fil. Elephant's dung.
Used in treatment of allergy.
407. Rawath Baqar. Cow dung.
Usually charred. Used as fumigation ingredient and in dressing wounds.
408. Rawath Dhan. Sheep dung.
Usually charred. Used as fumigation ingredient and in dressing wounds.
409. Rawath Jamal. Camel dung.
Usually charred. Used as fumigation ingredient and in dressing wounds.
410. Rawwaq.
Clarifying clay soil, obtained from all along Nile valley. Constituents: mainly montmorillonite, plus feldspar, calcite, dolomite, chlorite, and traces of palygorskite, amphibole, mica and kaolinite. Suspension added to turbid water.
411. Rihan; 'Arwal, and Hadanit (Hadandawa). Basil; Sweet Basil; Common Basil; Garden Basil. *Ocimum hadiense* Forssk.; *Ocimum basilicum* L., and *Ocimum lanceolatum* Schum. & Thonn.
A cultivated and wild aromatic plant widespread throughout Northern and Central Sudan. Seeds, flowers, leaves, and stem, are boiled in water and sweetened for treatment of jaundice. Also used as carminative, demulcent, flavouring agent, expectorant, stimulant, in treating allergy, ascites, dysentery, and eye infection. Also used as mosquito repellent, analgesic in labour, and anti-dote for scorpion stings. When vinegar is added, it is inhaled to recover unconscious patients.
412. Rijla. Purslane. *Portulaca oleracea* L.
A succulent herb that is cultivated in the Sudan as a vegetable crop. Whole young plant is used for food and in treating abdominal disorders.
413. Rita.
Silver cleansing agent. Used as hair insecticide.
414. Robe and Laban Rayib (Egypt).
Sour milk curds produced by spontaneous fermentation of milk, usually stored in *si'in* (milk skin) and *bukhsa* (milk gourd); butter is obtained in the process and buttermilk is used for different types of milk sauces, viz. *ni'amiya*, *kurrara* etc., or diluted with water and consumed as *ghubasha*. Spread over turbid water for purification. Used also in treating diarrhoea, as anti-spasmodic, and as beverage.
415. Rumman. Pomegranate. *Punica granatum* L.
Juice is used in treating peptic ulcer. Fruit cover is used to treat epistaxis, dysentery and to dispel worms.
416. Ruz. Rice. *Oryza sativa* L.
Grains used for food.
417. Sabagna. *Jatropha glauca* Vahl, Symb. Bot.; *Jatropha lobata* Muell.-Arg.; *Jatropha ricinifolia* Fenzl., and *Jatropha glandulifera* Roxb.
Erect perennial undershrub of the lowland plains of Northern and Central Sudan. Root is used as post-partum analgesic. The seeds are used as laxative.
418. Sabar and Sabbar. Aloe. *Aloe perryi* Bak.
A bitter plant imported from Middle East countries and India. Leaves mass moistened with water or coffee, and used in treating chest complaints, as laxative, and purgative. It is used as anti-dote for arrow poison.
419. Sabtu.
Used in treating hypertension.
420. Sado.
Bark of a tree imported from Abyssinia and used in the preparation of *asalob*.
421. Safar Al-Baid. Egg yolk.
Used in treating tonsillitis.
422. Safoufat Al-Usul.
Constituents: *Habbat al-Muluk* etc.
423. Saikaran; Tarmf (Dilling); Mekayyis (Hadandawa), and Simm al-Far. Thorn-Apple; Datura. *Datura stramonium* L.; *Datura muticus* L.; *Datura metel* L.; *Withania somnifera* (L.)Dunal; *Rogeria adenophylla* J.Gray ex Del.; *Physalis somnifera* L., and *Hyoscyamus muticus* L.
A wild gravel soil undershrub widespread in Sudan. All parts especially seeds which are crushed and

- mixed with food or marisa, stem bark, and root are used in chronic abdominal pain. A known arrow and lances poison, aphrodisiac, narcotic, poultice, and diuretic. It is also used in treating diarrhoea.
424. Sakan. Soot.
Main constituent of 'amar (native black ink).
425. Sala'la'; Katut (Hadandawa), and Tekwatko (Hadandawa). *Cissus quadrangula* L. and *Vitis quadrangularis* L.
A widespread wild climber plant. Root, stem and whole plant are used as stomachic, poultice, wound anti-septic, fish poison, in treating saddle-galls, joints affections, as arrow poison, and antidote against scorpion stings. Used with faitarieta dura to treat gonorrhoea.
426. Salah Mawgood. Unidentified Latin name.
Root obtained from southern Kordofan and used in treating disease caused by the evil eye, to avert evil spirits, and as fumigation ingredient.
427. Saljam. *Acacia gerrardii* Benth. var. *gerrardii* and *Acacia bebedadoides* Harms (syn.).
A local low land tree. Leaves used in treating abdominal disorders.
428. Samin. ghee.
Clarified butter, native butter oil, ghee. Used as a carrier for medicinal ingredients, for local application or internal administration. Used in treating mental illness, syphilis, and joints affections.
429. Samq Abu-Baka. *Gardenia thunbergia* L.f.
Resin and used as laxative, purgative.
430. Sananir. Common groundsel. *Senecio vulgaris* L.
Imported from Jedda to Sawakin town. Annual herb: seeds and fruit, applied as a smooth watery paste to fontanelle of young children and allowed to run down to chin. Draws the teeth down. Used also in treating diarrhoea.
431. Sandal. Sandal wood. *Santalum album* L.
Imported from India as fumigation ingredient and an element in local perfume.
432. Sandaliya. Sandal wood oil.
Imported from India. Alcoholic perfume extracted and used for fumigation and as perfume ingredient.
433. Sandarus. Sandarac. *Callitris quadrivalvis* Vent.
Imported from India. Mass used for religious ritual fumigation.
434. Saqam Fakka.
Recipe of Shaikh al-Tayib Wad al-Marhi. Constituents: *Simbil*, *Qurunful*, *Mablal*, *Filfil*, *Kobl*, powdered together and used in treating inflammation of the eye.
435. Sarih; Sha'ar Al-Banat; Sarha, and Sarah. *Maerua crassifolia* Forssk.; *Maerua uniflora* Vahl; *Maerua meyerjohannis* Gilg.; *Maerua uguenensis* Gilg., and *Maerua hirtella* Chiov.
A lowland spinescent branched shrub widespread throughout Northern and Central Sudan. Branches and root used in fumigation to treat rheumatic pain. Also used in treating tropical ulcers, and in water purification.
436. Sathab. Herbygrass; Rue; Herb of Grace. *Ruta graveolens* L.
Tree imported from the Mediterranean countries. Fruits are boiled and sesame oil added and used for rheumatic pains.
437. Sawad Al-'Aish. Dura mould.
Used in treating cough.
438. Sedam (Hadandawa). *Lavandula coronopifolia* Poir.
Fragrant perennial herb. Used whole as astringent.
439. Senna; Senna Makka, and Senna Senna. Senna; Italian Senna; Mecca Senna. *Cassia acutifolia* Del.; *Cassia senna* L.; *Cassia obovata* Collad.; *Cassia angustifolia* Vahl; *Senna alexandrina* Miller; *Senna italica* subsp. *italica*, and *Cassia italiaca* Mill.
A wild and cultivated undershrub that grows in Northern and Central Sudan. Pods, leaves, and seeds (known also as *jalajil*) are used in treating abdominal disorders, as laxative and purgative, in treatment of burns, wounds and as a *marisa* additive. Seeds are used in the treatment of eye infections.
440. Sha'aloab; Al Louis, and Al Sha'abiet. *Leptadenia arborea* (Forsk.); *Cynanchum arboreum* Forssk., and *Leptadenia heterophylla* Del.
A widespread tomentose twining shrub. Stem and root are used in treating gonorrhoea, swellings, and nose disease. Poultice of branches and leaves are used to treat snake bites.
441. Sha'ar. Hair.
Used as fumigation ingredient.
442. Sha'ar Fil. Elephant's hair.
Used as amulet.
443. Sha'ar Zaraf. Girrafe's hair.
Used as amulet.

444. Sha'ir. Barley//Peal Barley//Perlatum. *Hordeum sativum* Pers. and *Hordeum vulgare* L.
Plant cultivated in Sudan. Grains used for bread-making or roasted, in the treatment of kidney stones, Diabetes mellitus, infections, and as diuretic.
445. Sha'ir Hindi. *Scleropyrum wallichianum* (Wight & Arn.) Arn. and *Scleropyrum pentandrum* (Dennst.) Mabblerley.
Fruits imported from India used in treating urine retention, liver pain and chest complaints.
446. Shabb. Alum; Potash Alum; Potassium Alum.
A compound of several metals mainly white Aluminium Sulphate crystals (powdered or dissolved) obtained from Egypt possibly of Chinese origin. Brought mostly by iron workers and Fellata. Used in treating inflammation and healing wounds, gonorrhoea, fever, leprosy, infection of the eye, as toothache analgesic, astringent, fumigation ingredient, and an agent for water purification. Like 'afsa, it is used as dehydrant to tighten the vagina.
447. Shaff. *Terminalia brownii* Fresen.
Tree widespread in Sudan. Stem and branches are used for ritual incensing and therapeutic fumigation for rheumatic pains and back ache.
448. Shai. Tea. *Camellia sinensis* (L.) Kuntze; *Thea sinensis* L., and *Cemellia thea* Link.
Plant imported from India, Turkey, and Tanzania and grows locally in Kordofan. Leaves are used in fumigation. Leaves decoction is used as stimulant beverage and mode adjuster, digestive, to treat fever, cough, eye infection, anti-dote against scorpion sting, and as ritual item. It is alleged to decrease incidence of gastric cancers.
449. Shai Al-Misairiyya. Unidentified Latin name.
Tea of Misairiyya tribe of Kordofan.
450. Shairi. Unidentified Latin name.
Root (worn or powdered and snuffed) used in treating diseases caused by the evil eye, protects against giddiness, and as an aphrodisiac.
451. Shajar Al-Rawwaq; Anid (Dinka); Shajar Al-Zaki, and Ben. Horse radish; Sudan drumstick tree. *Moringa oleifera* Lam.; *Moringa pergrina* (Forssk.) Fiori, and *Moringa pterygosperma* Gaerth.
Seeds used as agents for water purification and as a source for oil.
452. Shajar al-Sim; Al-Sabbar; Um lebeina; Shajar al-Zaraf; Shajar al-Dud, and Haid (Handandawa).
Candelabra tree. *Euphorbia calycina* N.E.Br.; *Euphorbia candelabrum* Kotschy; *Euphorbia veinifica* Kotschy; *Euphorbia aegyptiaca* Boiss.; *Euphorbia abyssinica* J.F. Gmel.; *Euphorbia convolvuloides* Hochst.; *Anisophyllum convolvuloides* Klotzsch. & Garcke, and *Euphorbia priuriana* Baill.
Erect annual herb that grows in the sandy hills of Western and Central Sudan. Juice is used as arrow and lances poison, in homicide and as laxative and purgative. Macerate of the root is used against gonorrhoea.
453. Shajarat Al-Nar. 'Fire tree'. Unidentified Latin name.
Root used in treating syphilis, leprosy and wounds.
454. Shajart Al Waram and Nadayana. *Anticharis linearis* (Benth.); *Doratanthera Linearis* Benth., and *Distemon angustifolius* Ehernb. & Hempr.
A lowland annual herb that grows in Northern and Central Sudan. Poultice of the whole plant is used in treating swellings. Also used as poultice, diuretic, in treating jaundice, and joints affections.
455. Sham' Al-Nahal. Bees' wax.
Used in dressing wounds.
456. Shamar and Kammoun. Fennel; Florene Fennel. *Foeniculum vulgare* Miller; *Foeniculum officinale* All., and *Anethum foeniculum* L.
An aromatic shrub that is cultivated in several places in Sudan. Leaves and seeds are used for seasoning. Whole plant, fruits, seeds, and leaves are used as carminative, spice, in treating diarrhoea, and as lactogenic.
457. Shammam and Gawwoon. Sweet melon. *Cucumis melo* L.
Creeper or climber that grows in Sudan. Parts used: fruit; seeds; root (emetic and purgative). Used as diuretic, in treating allergy, as laxative, purgative and emetic.
458. Shams Al-Ma'rouf. Unidentified Latin name.
A tree that grows in Darfur, its root used as aphrodisiac.
459. Sharboat.
A fermented mild alcoholic beverage brewed from date with different spices e.g., cinnamon, ginger, ghorungal.
460. Sharmut.
Dried striped meat of different origins, sometime slightly fermented.
461. Sharrab Al-Shamsain (Um Rawwaba).
Named after *snake M. Cordofanensis*, also its branches follow the rising and the setting sun, and hence the name. Root used as an anti-dote against snake bites.
462. Shatta; Filfil Ahmar, and Raria (Azande). Red chilli; Chilli; Red pepper; Spur pepper; Hot pepper; Bird

- pepper. *Capsicum frutescens* L.
Plant cultivated throughout Sudan. Extremely pungent and stimulant. The parts used include fruits (dried), leaves, seeds, and pods. Used as rubifacient, irritant, appetizer, spice, stomachic, in treating syphilis, leprosy, wounds, tuberculosis, spleen enlargement, rheumatic pains, as poultice, fumigation ingredient, and toothache analgesic.
463. Shawwaya.
Constituents: *wadak*, *zait*, *qarad*, *shebb* all simmer and a is soaked in cotton wool as warm suppositories. Used in treating diarrhoea.
464. Sheibi; Ara; Elara; Ras Al-Shayib; Shajart Al Na'aga; Sha'ar Al Shayib; Ghobbaisha; Umm Shara, and Un Sharaya. *Aerva javanica* (Burm.f.) ex Schult.
A woolly erect or suberect perennial herb that grows wild in the lowland of Central and Northern Sudan. The poultice of the whole plant is used to treat swellings and wounds.
465. Sherkaila Root No. 2. Unidentified Latin name.
Root used in treating syphilis.
466. Sherkaila Root No. 3. Unidentified Latin name.
Root used in treating burning micturition and gonorrhoea.
467. Shigu.
A favourite additive of food in Nuba Mountains. Sesame seeds roasted dry, crushed into paste to which 'atroum or *waikab* added, oil separated and product incubated for 14 days. It remains soft for months because of oil content. Used like *kanal*.
468. Shihhait. *Combretum aculeatum* Vent.
A widespread grey tomentose shrub. Root are used as laxative, purgative poultice to enhance wound healing, and in treating tuberculosis.
469. Shom (Dinka); Kuar (Nuba), and Joghana. African ebony; Jackal berry. *Diospyros mespiliformis* Hochst. ex A. DC.
Parts used: fruit bulb; seeds.
470. Shou; Shou Habashi, and Kouso. *Hagenia abyssinica* (Bruce) J. Gmel.
Grown and imported from Ethiopia. Root (powdered and drunk with sour milk) and used as anthelmintic.
471. Si'da and Dis. Nut grass. *Cyperus rotundus* L.; *Typha angustata* Bory & Chaub.; *Typha angustifolia* L., and *Typha domingensis* Pers.
Wild common grass. Parts used: whole; tubers; root, as astringent, anthelmintic, emmenagogue, stomachic, diuretic, aromatic, and in treating diarrhoea, and as an agent for water purification.
472. Sijal. *Veronica adoensis* Schult. Bip.
A pubescent herb. Root used in treating abdominal disorders, as anti-spasmodic, and anti-dote against scorpion bites.
473. Sim Ahmar; Shajar al-Sim (Baqqara); Darag (Togale); Narurai (al-Liri), and Tumu (Kadugli). *Adenium bonghel* A. DC. and *Adenium obesum* (Forssk.) Roem. & Schultes.
Shrub with bright red flowers. Juice used as arrow poison and toxin.
474. Simbil and Sinbil. Spikenard. *Andropogon nardus* L. and *Cymbopogon nardus* (L.) Rendle.
Small shrub imported from India. Leaves, branches (decoction) used in fever, anti-inflammatory and demulcent.
475. Simsa'a. Unidentified Latin name.
Literally means 'poison of an hour'. Used as an agent of homicide.
476. Simsim. Sesame. *Sesamum indicum* DC.; *Sesamum alatum* Thonn., and *Sesamum orientale* L.
A herb cultivated in Sudan. Seed oil is used for food, *zait al-walad* is famous for treating chest complaints, and as laxative. Widely used for the treatment of skin diseases and in massage. Also used to treat hair fall, dandruff, cough, common cold and upper respiratory tract infections.
477. Simsim Al Shaytan; Simsim Al Ifriet; Kharow (Nigerian), and Showaikat Al Gaizan. *Rogeria adenophylla* Gay. ex Del.
Perennial herb that grows on hill slopes in Central Sudan. The powdered fruit is cooked with milk to treat gonorrhoea.
478. Sinan Al-Hatab. Wood resin.
Prevents keloid formation.
479. Sinfab. Unidentified Latin name.
Mixed with dates and *samin* as laxative and purgative.
480. Sogheir and Kurmut. *Cadaba glandulosa* Forssk.
Glandular lowland shrub. The poultice of the whole plant is used to treat swellings.
481. Soun. *Capparis micrantha* A. Rich.
A much-branched shrub. Root used as anti-spasmodic, and analgesic for toothache.
482. Soungood; Singeed (Hadandawa), and Karaga. *Indigofera spinosa* Forssk.
Semi-desert spinescent woody herb in the deserts of Western and Northern Sudan. Root used as

- chewing stick, as toothache analgesic, and in treating abdominal disorders. Macerate of whole plant is used as anti-spasmodic.
483. Sourig.
Biproduct of *marisa*.
484. Subaq. *Combretum trifoliatum* Vent.
A wild tree. Wood used in fumigation.
485. Sukkar Nabat. Alphenic; sugar candy; white barley sugar.
Imported from Egypt. Mass or powdered with *Kobl* in treatment. Used in treating eye infection, indigestion, fits, as fumigation ingredient, and an amulet.
486. Sulaimani. Arsenic.
A poisonous agent used in homicide and suicide.
487. Surratiya. *Syzygium aromaticum* (L.) Merr. & Perry.
Imported crude oil of cloves used in massage and perfume.
488. Suteib; Soutab, and Um Banqaiqa. White Lotus; Lotus white Lilly. *Nymphaea lotus* L.; *Nymphaea sagittata* Edgew., and *Nymphaea aegyptiaca* Opiz.
An aquatic herb that is widespread in Central and Southern Sudan. Root is eaten as tonic, to treat dysentery and as fumigation ingredient to treat rheumatic pain. When mixed with sesame oil, it used as poultice for the treatment of swellings.
489. Tabaldi; Homera; Uffa (Hamaj), and Fak (Nuba). Baobab; Monkey bread tree; "Cream of tartar tree"; African calabash tree. *Adansonia digitata* L.
A huge arid zones wild tree that grows in Northern and Central Sudan; water reservoir when hollow. Each tree in western Kordofan has a name coined usually with 'Um' (mother) and a substantive, e.g., *Um Asal* (full of honey). Each tree is registered in the government registry in the Region. Fruits (*gongolaise*) contains seeds covered with an edible sub-acid farinaceous pulp, which has cooling properties, and is made into *madidat* (porridge) *gongolaise*. The powdered fruits (*gongolaise*) is mixed with powdered *zirri'a* (dura) and boiled with sour milk. The maceration of the mesocarps is used in treating dysentery and diarrhoea in general. It is also thought to induce pregnancy, and enlarge the breasts. Also used as diaphoretic, in treating haemoptysis, fever, abdominal disorders, and as beverage.
490. Tadar. Unidentified Latin name.
Anti-snake root of western Sudan. A chick is stuffed with this root and tied around the site bitten by a snake, it is alleged that the snake's teeth come off in 3 days.
491. Tagtag and tiko. *Pavonia patens* (Andr.); *Pavonia glechomifolia* (A.Rich.), and *Pavonia macrophylla* E. M. Harvey.
Erect perennial herb that grows in the lowlands of Western and Eastern Sudan. Poultice of the whole plant is used to treat swellings.
492. Tagtaga; Humbuk; Gargadan, and Um Barru. *Abutilon figarianum* Webb. and *A. graveolens* sensu Broun & Massey.
A stellately pubescent erect perennial herb grows wild in Northern and Central Sudan. Leaves used as lactagogue and to treat sore throat.
493. Tailabon. Finger millet. *Eleusine coracana* (L.) Gaertn.
Parts used: seeds; whole young plant.
494. Talh. Talh tree; Thirsty thorn. *Acacia seyal* Del. var. *fistula* Schweinf. Oliv. and *Acacia seyal* Del. var. *seyal*.
A thorny tree that grows throughout Sudan. Types include: *Talha hamra* and *talha baida*. Used in treating problems related to teething, syphilis, leprosy, diarrhoea, and joints affection. Parts used include bark (for fumigation and as a decoction) and gum. Bark is known as *kitaiyat*. *Waqar al-wattaya* (moisire on sole of the foot) of a woman after fumigating with talh, is collected and rubbed on an itchy teething gum. Bark is used for the treatment of peptic ulcers. Fruit macerate is used in water as mouth anti-septic. It is also used for tanning.
495. Tamala.
Tamala is the leavening plate cleansing cloth. Its contents, it is believed, if applied to the female breasts makes them larger.
496. Tamalaika. Amaranth; Bush greens. *Amaranthus caudatus* L.
Parts used: leaves; seeds.
497. Tamatim. Tomato. *Lycopersicon esculentum* Mill.
Fruit used for food.
498. Tamr Al-'Abid and Al-Tikko. *Grewia villosa* Willd.
A grey tomentose shrub. Parts used: leaves; stem; root. Used in treating syphilis, small pox, and tuberculosis.
499. Tamr; Balah, and Nakhal. Date palm tree. *Phoenix dactylifera* L.
A wild and cultivated tree in Northern Sudan. Fruits and fronds are used. Fronds are used as

- toothbrush and for whitening teeth, and in water filtration, in splinting bone fractures, in making ropes, baskets, and mats, in treating joints affections, asthma, tonsillitis, constipation, as fertility symbol, and as substrate for alcohol beverages. Dates are the sweet nutritious fruits of the date palm tree. Out of this fruit *madidat tamr* (dates porridge) is used. When added to hilba and dukhun, it is used in treating rheumatic pain. Dried fronds are ground and used in bathing parturient women to activate blood circulation. Date pollen is added to honey and ginger and used as tonic.
500. Tanta. Unidentified Latin name.
Known in Fanda Hills in western Sudan. Stem is eaten by *Kujur* as protection against local snake god Ibiid whose shrine they have visited without observing due ritual.
501. Taraq Taraq and Shajar Al-Luban. *Boswellia papyrifera* (Del.).
A local deciduous tree. Fruits; leaves: used in treating jaundice .
502. Tarfa and Al Athil. Tamarisk. *Tamarix nilotica* (Ehrenb.)Bunge and *Tamarix aphylla* L.
Tree that grows widely in the Nile banks. Bark is used in the treatment of piles. Branches used in flavouring and purifying water.
503. Tarkin and Muluha.
A fermented fish dish in northern Sudan. Fish of all types containing bones are fermented preserving juice as much as possible; the filterate is *muluba*.
504. Tartous. *Hydnora abyssinica* A. Braun.
Leaflet, rootless total parasite of the roots of Acacia spp. in Central Sudan. Whole plant is used to treat swellings, tonsillitis and dysentery.
505. Teen. Figs. *Ficus carica* L.
Fruit.
506. Tibet. Unidentified Latin name.
Tree root used in treating syphilis.
507. Tibra. Unidentified Latin name.
Tree root (decoction) used in treating syphilis.
508. Tien. Clay.
Ordinary clay lining jars of turbid water; or collected fresh fluvial clay after flood or obtained from deep river beds or from underneath earthenware water jars. It is used for treatment and is eaten by pregnant women and children. Used in treating chicken pox, and in water purification.
509. Tifta Hamra.
Indidixent obtained from Belgium. Constituents: Rosaniline, a Triphenyl-methane dye. Used in treating eye inflammation.
510. Tili (Golo). *Terminalia splendida* Engl. & Diels and *Terminalia stenostachya* Engl. & Diels.
Red wood (powdered) and used in treating dysentery.
511. Tinat Wad Al-Mikashfi.
Clay obtained from the shrine of Wad al-Mikashfi used as an anti-dote against snake bite.
512. Tinat Wad Al-Turabi.
A piece of clay obtained from the shrine of Sheikh Wad al-Turabi and used as an anti-dote against rabies.
513. Tirtir and Baroat. *Sterculia setigera* Del.
A deciduous tree. Bark used in treating jaundice, and bilharzia.
514. Toum and Basal Makada. Garlic. *Allium sativum* L.
A cultivated small plant with pungent taste and very strong smell, grows in Sudan. Bulb used as diuretic, diaphoretic, expectorant, aphrodisiac, pesticide, stomachic, menstruation regulator, in treating sepsis, allergy, teething problems, fever, and joints affections. Alleged to decrease blood cholesterol and lower blood pressure. Presumed to increase body resistance mechanisms.
515. Tuffah. Apple. *Malus sylvestris*.
Fruits.
516. Tuka. Unidentified Latin name.
Popular in Gardud Aulad Himaid. Root used in treating infection of the eye.
517. Tumbak and Qamsha. Tobacco. *Nicotiana tobacum* L. and *Nicotiana rustica* L.
Habit-making snuff (a pinch is inserted between upper or lower lips and gum (saffa) sometimes sniffed, leaves smoked in pipes or chewed. Parts used: leaves: sold in large circular cakes (decoction); used sometimes in hunting monkeys. Used as demulcent, toothache analgesic, anti-inflammatory, in managing teething, as mood adjuster, and dressing for wounds.
518. Tundub. Capers. *Capparis decidua* (Forssk.) Edgew.; *Capparis aphylla* Heyne ex Roth, and *Sodada decidua* Forssk.
A lowland shrub widespread in Sudan. Plant is used in ritual fumigation in personal hygiene, as anti-bacterial, anti-rheumatic, and insect repellent. *'Ujfur* and *kurkum* (turmeric) are added sometimes to give the skin a yellow colour in fumigation. Decoction of fresh twigs of tundub is taken against jaundice, and poultice is used to treat swellings and joint pain.

519. Turab Al-Arda.
Termite hill earth (Darfur). Constituents: Mainly quartz also kaolinite, feldspar, and anhydrite.
Dusted over turbid water to purify it.
520. Turaiba and Turaiba Zukhri.
Turaiba earth, powder brought from the neighbourhood of Bara, Malimma near Atbara, Kosti, Khartoum and Qoz Rajab. Constituents: finely-divided yellowish brownish-black earth probably containing iodides of mercury, or lead chromate: taken as decoction with water; main part of "Syphilis Pills". Used also as laxative, purgative, emetic, and in treating tropical ulcers.
521. Turmus. Lupin. *Lupinus termis* L. and *Lupinus albus* L.
A cultivated plant. Seeds boiled and fermented before eaten alone or with dates. It is used in expediting healing of fractures, as diuretic, anthelmintic, in treating diabetes mellitus, skin infections, and removing acne and face blemishes.
522. Tutia Baida.
Metal with powder obtained from India. Constituents: Zinc Sulphate, Zinc Oxide amorphous powder; usually mixed with water. Used in treating inflammation of the eye.
523. Tutia Hamra. Rosaniline.
A triphenyl methane dye.
524. Tutia Khadra. Green Copper Sulphate.
Obtained from Egypt. Constituents: copper Sulphate. Used in treating syphilis.
525. Twini Digla.
"Intestine balls", fermented offals dish in Nuba Mountains. Offals are fermented and dried, 'atron, water and salt added, the damp material is made into balls which are left to dry and ferment for 8 more days. The balls are stored for months. Crushed and cooked for sauce making.
526. Ud Al-Hind; Ud um abiyad, and Irq Al-Teeb. Orris. *Iris germanica*.
This is a root or rhizome imported from India and Syria, and which has a nice smell. It is also hard and smooth, and therefore does not break and injure the gum when given to the baby to suck instead of its thumb. The root is also a known antispasmodic and anti-flatulent when given to children to teething.
527. Ud Al-Salib. Unidentified Latin name.
Imported from Egypt, main use as *hujab* (amulet) to keep women faithful.
528. Ud Bakhur. Unidentified Latin name.
Imported from Hijaz. Stem used as fumigation ingredient.
529. Ud Qarh; Ud Qarha, and Aqir Qarha (Arabic). *Cucurbita pepo* L.
A plant imported from Egypt. Used in treating swelling and as toothache analgesic.
530. Ud Tartos and Tartos. *Cynomorium coccineum* L.
Root (powdered and applied to wounds), and used in treating gangrene and dysentery.
531. Ud and Udiya. Aloeswood. *Aquilaria agallocha* Roxb.
Wood used in treating syphilis.
532. Um Abaka. *Gardenia lutea* Fresen. and *Gardenia ternifolia* Schumach. & Thonn. subsp. *jovis-tonantis* (Welw.) Aubrev. var. *jovis-tonantis* (Welw.) Aubrev.
Obtained from Gardud Awlad Himaid. Root (taken with takirni root) used as anthelmintic.
533. Um Mighashiesha. *Sida ovata* Forssk. and *Sida grenioides* Guill. & Perr.
Lowland perennial herb widespread in Sudan. Whole plant is used as aphrodisiac.
534. Um Shakka.
Fermented bread made of *dura* in northern Kordofan.
535. Um Shara and Dabkar. *Trichillia emetica* Vahl.
Wild plant. Bark and wood used in making furniture. A poisonous item used as an emetic.
536. Um Sheera. *Ipomoea pilosa* (Roxb.) Sweet and *Ipomoea arachnosperma* Welw.
Wild twining herb. Root used to treat abdominal disorders.
537. Um Shutur. Cegilia (?).
A fish poison.
538. Um Shuwaika; 'Ussar (Hadandawa); Abu Shuwaika; Sholieb, and Um shoak. *Fagonia cretica* L.
Semi-desert spinescent woody annual herb that is widespread in Central and Northern Sudan.
Macerate of whole plant is used as anti-spasmodic, and in treating heartburn, and as poultice for swellings. The powdered fruit is mixed with sour milk and taken as anti-purgative.
539. Um Tukulqul and Tilliem. *Vitex doniana* Sweet, Hort. Brit.
A deciduous savanna tree. Root and bark used in treating inflammation and bilharzia.
540. Umm Shoak; Umm Shwaika, and Umm Sinanat. *Dicoma tomentosa* Cass.
An erect perennial herb that grows in the lowland of Central Sudan. Whole plant is used to treat fever in the postpartum period.
541. Usfur and Qurtum. Safflower; Kartum; False Saffron. *Carthamus tinctorius* L.
A bright yellow minute flower imported from Yemen and Saudi Arabia. It is used as dye and

- decoction. The plant has thorny leaves that give yellow colour to the skin specially when added to *dukbbkhan* (ritual fumigation). It is also used in treating inflammation of the eye, in treating swellings, as appetizer, diuretic, and as oil source.
542. Ushar; Kursi Al-Nabi (flower), and Baras (Hadandawa). Sodom Apple; Dead Sea Apple Fruit; Swallow Wort; Giant Milkweed. *Calotropis procera* (Ait.)Ait.f. and *Asclepias procera* Ait.
A wild shrub or small tree widespread in Sudan. Flower, leaves, bark, seeds, latex, and fruits are all used medicinally. Its latex is deposited on cotton wool or stem inserted in vagina to induce abortion; also used as hair remover in animals, and squeezed on thorn injuries to aid wound healing. The powdered leaves are either taken orally with animal oil as anti-asthmatic or rubbed externally as anti-rheumatic. Stem is used as necklace to protect children against diphtheria in Wadi Halfa. Plant is also used in treating eye infection, jaundice, ringworm, skin disease, gonorrhoea, and as sugar source. It is used as poison in infanticide and homicide, and arrow poison for elephant hunting. It is used as narcotic when added to marisa to increase its potency and induce sleep. Also used as diuretic, laxative, purgative, anti-dote against scorpion bite, and as fertility symbol. Latex is injected rectally in gonorrhoea.
543. Wadak. Tallow.
Used in treating headache.
544. Waikab.
Burnt dura straw steep water used for food.
545. Yam. *Dioscorea dumetorum* (Kunth)Pax.
Common wild plant, occasionally cultivated. Tubers frequently consumed during famines though poisonous.
546. Yansoon. Anise; Aniseed. *Pimpinella anisum* L.; *Anisum vulgare* Gaertn., and *Anisum officinarum* Moench.
A cultivated annual herb imported from Egypt and is cultivated in several regions of Sudan. Fruits (and also seeds) and oil are used as spices, beverages, carminative, aromatic, in treating diarrhoea, chest complaints, flatulence, colic, and as oxytocic, expectorant, anti-asthmatic, anti-tussive, and flavouring agents.
547. Yoab (Hadandawa). *Euphorbia cuneata* Vahl.
Semi-desert and mountainous slopes glabrous branched shrub. Whole used in chest pain and complaints, as fumigation ingredient.
548. Yousifi. Mandarin. *Citrus deliciosa*.
Fruit used as food.
549. Za'faran. Saffron; Crocus. *Crocus sativus* L.
Plant widely grown in the Mediterranean region, and is imported from Egypt. Stigmas are used as spice, flavouring agent, stomachic, anti-spasmodic, and amulet. The aromatic oil is rubbed over facial swellings for treatment.
550. Za'tar. Thyme. *Thymus vulgaris* L. and *Thymus capitatus* L.
Herbal plant imported from Syria. The whole herb and flowers are used as mouth wash, digestive, in treating flatulence, colic, chest complaints, and as spice, and flavouring agent. It is also used as anti-dote for snake bites, and its fumes are used to repel scorpions. It is also a potent anti-septic.
551. Zabad Malih. Cuttle-fish bone.
Imported from Egypt; powdered and mixed with kohl. Used in treating eye inflammation.
552. Zabadi. yoghurt.
Fermented milk, the overgrowth of *Lactobacillus acidophilus* protects against bacterial contamination.
553. Zabib Hindi. Unidentified Latin name.
Imported from India through Egypt. Fruits in water used as laxative and purgative.
554. Zabib and Inab. Grapes; rasins. *Vitis vinifera*.
Fruit used as food.
555. Zagi. *Ctenolepis cerasiformis* (Stocks.); *Zehneria cerasiformis* Stocks.; *Blastania fimbristipula* Kotschy., and *Melothria fimbristipula* Kotschy. & Beyr.
An annual herb that grows in watercatchment areas in Western Sudan. Seed oil is used in the treatment of swellings.
556. Zahara. Washing Blue.
Drunk as abortifacient.
557. Zaibaq. Mercury Zinc.
Obtained from Egypt and India. Constituents: Mercury; scented and used to destroy lice, or mixed with sand and placed on grain as pests repellent.
558. Zait Al-Ni'am. Ostrich fat.
Used in relaxing contractures, in massage, in treating joints affections, and sprains.
559. Zait Samak. Fish oil.
Used as anti-cough.

560. Zait Sandaliya. Crude sandal oil.
Imported from India as an ingredient in perfume. Used in massage.
561. Zait Simsim; Zait Al-Walad, and Zait Wad Al-'Assara. Oil; Sesame oil.
Used in treating ear disease, chest complaints, splenic enlargement, headache, skin disease, as drug carrier, laxative, purgative, styptic, in massage, in dressing of wounds, and as anti-cough.
562. Zangabil and Ganzabil. Ginger; Canton Ginger; Stem Ginger; Common Ginger; Chinese Ginger.
Zingiber officinalis Rosc. and *Amomum zingiber* L.
A plant imported from India and Ethiopia. The root-stock has hot taste. The rhizome is used as beverage, in treating joints affections, common cold, chest complaints, heartburn, and as anti-cough.
563. Zarana.
A recipe local to Darfur. Used as aphrodisiac.
564. Zarnikh. Arsenic.
Used in treating lymph adenitis (khanazir).
565. Zirri'a. Sorghum malt.
Dried sprouting dura grains. Used in treating diarrhoea, and as fertility symbol.

Subject Index

Abdominal dis-ease (122)

4, 6, 8, 11, 12, 15, 16, 17, 28, 29, 34, 36, 38, 45, 46, 47, 48, 49, 54, 74, 86, 87, 90, 91, 93, 103, 106, 110, 111, 119, 122, 156, 158, 171, 179, 181, 183, 186, 191, 194, 195, 198, 202, 207, 209, 211, 216, 219, 227, 237, 241, 251, 254, 256, 259, 264, 265, 273, 282, 296, 297, 301, 302, 304, 305, 306, 331, 332, 334, 342, 345, 348, 360, 361, 363, 367, 368, 380, 383, 386, 387, 393, 399, 405, 411, 412, 414, 415, 416, 417, 423, 427, 430, 439, 445, 454, 456, 462, 463, 471, 472, 482, 485, 488, 489, 494, 499, 501, 504, 510, 513, 526, 530, 536, 538, 539, 542, 546, 550, 561, 562, 565

Abortifacients (3)

110, 189, 542

Analgesics (15)

28, 29, 102, 129, 216, 217, 291, 342, 359, 411, 446, 462, 481, 482, 517

Anthelmintics (23)

4, 8, 10, 14, 40, 48, 93, 110, 178, 180, 182, 189, 297, 322, 368, 386, 393, 404, 405, 470, 471, 521, 532

Anti-diabetic (2)

189, 291

Anti-emetic (2)

160, 181

Anti-inflammatory (8)

38, 46, 297, 352, 446, 517, 539, 541

Anti-Spasmodics (18)

5, 20, 39, 90, 92, 156, 181, 216, 259, 331, 363, 368, 414, 472, 481, 482, 526, 549

Anti-tussive (15)

32, 46, 50, 170, 256, 259, 320, 368, 382, 387, 437, 448, 559, 561, 562

Aromatics (6)

254, 260, 330, 367, 471, 546

Astringents (8)

46, 92, 94, 144, 387, 438, 446, 471

Bone, joints and muscle dis-ease (48)

2, 15, 16, 22, 40, 47, 50, 110, 119, 124, 132, 152, 167, 181, 188, 189, 191, 216, 245, 247, 254, 260, 277, 286, 297, 299, 326, 330, 336, 348, 349, 368, 405, 425, 428, 435, 436, 447, 454, 488, 494, 499, 514, 518, 521, 530, 558, 562

Carminatives (11)

92, 93, 172, 181, 254, 260, 264, 330, 411, 456, 546

Chest dis-ease (47)

8, 38, 74, 90, 93, 101, 144, 158, 167, 170, 181, 187, 192, 217, 219, 237, 247, 254, 256, 281, 296, 297, 298, 303, 308, 320, 324, 332, 339, 342, 367, 387, 396, 418, 445, 462, 468, 476, 489, 498, 499, 542, 546, 547, 550, 561, 562

Contraceptives (1)

189

Demulcents (4)

32, 474, 517, 541

Detergents (1)

174

Diaphoretics (3)

182, 489, 514

Diuretics (21)

16, 70, 92, 93, 178, 233, 256, 264, 271, 273, 330, 341, 423, 444, 454, 457, 471, 514, 521, 541, 542

Ear and nose dis-ease (10)

74, 331, 366, 387, 394, 396, 405, 440, 541, 561

Emetics (11)

10, 32, 46, 189, 209, 252, 295, 399, 457, 520, 535

Emmenagogues (5)

38, 92, 93, 233, 471

Emollient (1)

191

Expectorants (3)

324, 411, 514

Eye dis-ease (46)

32, 33, 50, 65, 74, 79, 93, 97, 101, 113, 118, 122, 173, 176, 188, 240, 242, 247, 256, 265, 287, 297, 305, 316, 325, 332, 337, 338, 342, 386, 393, 403, 411, 428, 434, 439, 446, 447, 448, 450, 485, 509, 516, 522, 542, 551

Fertility, sterility and tonics (60)

19, 26, 28, 29, 30, 32, 35, 36, 38, 47, 54, 87, 92, 101, 110, 121, 127, 150, 155, 158, 166, 167, 172, 178, 182, 184, 185, 191, 197, 200, 215, 216, 221, 226, 233, 246, 256, 259, 264, 267, 268, 300, 309, 320, 340, 353, 384, 386, 389, 423, 450, 458, 488, 499, 514, 533, 542, 546, 563, 565

Fevers (28)

13, 40, 47, 54, 55, 74, 85, 102, 121, 158, 160, 181, 188, 195, 229, 230, 237, 256, 262, 265, 351, 374, 387, 446, 474, 489, 514, 540

Food and beverages (159)

3, 24, 25, 41, 44, 47, 49, 50, 51, 52, 53, 54, 55, 56, 66, 67, 69, 70, 72, 74, 76, 77, 78, 80, 84, 90, 91, 92, 93, 96, 100, 101, 120, 123, 124, 125, 127, 128, 139, 140, 141, 142, 143, 144, 146, 147, 148, 149, 150, 151, 155, 167, 168, 172, 174, 175, 181, 189, 191, 193, 196, 199, 219, 227, 233, 236, 237, 248, 249, 253, 254, 256, 260, 263, 264, 265, 266, 271, 272, 274, 275, 276, 278, 281, 283, 284, 285, 292, 293, 296, 297, 301, 317, 320, 322, 325, 326, 334, 341, 347, 350, 351, 354, 355, 357, 358, 360, 362, 365, 368, 369, 373, 379, 383, 385, 386, 388, 391, 398, 404, 412, 414, 416, 420, 428, 444, 448, 449, 451, 456, 457, 459, 460, 462, 467, 469, 476, 489, 493, 496, 497, 499, 503, 505, 515, 521, 525, 534, 541, 542, 544, 545, 546, 548, 549, 550, 552, 554, 562

Fungal Infections Treatment (1)

40

Lactogenics (6)

185, 191, 201, 254, 456, 492

Laxatives and purgatives (38)

5, 32, 47, 54, 103, 110, 174, 178, 181, 186, 189, 190, 227, 235, 250, 252, 253, 256, 271, 275, 277, 353, 368, 371, 399, 417, 418, 429, 439, 452, 457, 468, 476, 479, 520, 542, 553, 561

Menal and neurologic dis-ease (35)

23, 30, 32, 40, 65, 83, 92, 93, 116, 133, 154, 164, 167, 181, 188, 195, 198, 247, 253, 256, 265, 307, 339, 342, 348, 349, 386, 396, 428, 448, 450, 485, 512, 543, 561

Metabolic and systemic disease (25)

65, 93, 109, 110, 160, 178, 185, 188, 196, 256, 267, 291, 298, 310, 357, 367, 386, 387, 392, 415, 419, 444, 447, 502, 521

Mouth, teeth and throat (40)

1, 8, 28, 29, 47, 48, 54, 74, 102, 110, 216, 217, 219, 221, 227, 256, 270, 291, 310, 316, 342, 368, 374, 387, 396, 421, 430, 446, 462, 481, 482, 492, 494, 499, 504, 514, 517, 526, 529, 550

Narcotics (10)

23, 30, 83, 133, 164, 182, 184, 423, 517, 542

Oxytocics (2)

110, 158

Poisons, toxins and anti-dotes (83)

8, 10, 18, 21, 32, 40, 46, 47, 56, 57, 68, 71, 75, 93, 94, 104, 105, 111, 130, 140, 147, 174, 175, 178, 181, 186, 188, 189, 192, 208, 213, 220, 224, 225, 227, 244, 252, 261, 275, 287, 288, 289, 295, 299, 315, 322, 353, 358, 359, 368, 381, 386, 391, 395, 399, 411, 413, 417, 418, 420, 423, 425, 439, 440, 448, 452, 461, 472, 473, 475, 486, 490, 500, 511, 514, 518, 535, 537, 542, 545, 556, 557, 564

Poultices (22)

12, 16, 20, 46, 67, 85, 156, 177, 191, 275, 297, 299, 316, 395, 405, 423, 425, 454, 462, 464, 468, 538

Ritual and religious items (86)

2, 26, 37, 40, 42, 50, 58, 60, 61, 62, 63, 64, 68, 74, 76, 80, 88, 92, 104, 105, 110, 112, 113, 121, 132, 135, 136, 157, 163, 182, 186, 188, 191, 203, 223, 225, 228, 229, 230, 239, 243, 247, 282, 287, 290, 315, 320, 323, 324, 327, 328, 329, 335, 344, 346, 351, 356, 363, 386, 387, 407, 408, 409, 412, 424, 426, 431, 432, 433, 435, 441, 442, 443, 446, 447, 448, 450, 462, 484, 485, 518, 527, 528, 547, 549, 557

Rubifacients (1)

462

Skin affection and care (123)

16, 20, 28, 29, 31, 42, 43, 48, 50, 54, 59, 70, 74, 102, 110, 117, 119, 122, 126, 127, 134, 137, 138, 143, 155, 156, 159, 161, 165, 167, 169, 175, 178, 189, 191, 194, 195, 201, 215, 216, 217, 218, 222, 227, 233, 239, 244, 253, 255, 257, 258, 264, 279, 287, 296, 298, 302, 311, 312, 313, 314, 316, 319, 321, 331, 333, 343, 356, 363, 366, 368, 374, 386, 387, 390, 397, 400, 402, 405, 406, 407, 408, 409, 411, 425, 431, 432, 435, 439, 440, 444, 447, 453, 454, 455, 457, 462, 464, 468, 474, 476, 478, 480, 487, 491, 498, 504, 508, 514, 517, 518, 520, 521, 529, 538, 541, 542, 549, 555, 558, 560, 561, 564

Stimulants (6)

92, 93, 153, 260, 271, 411

Stomachics (10)

92, 110, 292, 363, 405, 425, 462, 471, 514, 549

Styptics (2)

90, 561

Tropical dis-ease (41)

12, 28, 46, 47, 67, 81, 82, 89, 107, 108, 158, 160, 165, 169, 172, 175, 188, 189, 195, 217, 234, 237, 244, 275, 282, 291, 302, 307, 319, 368, 370, 374, 387, 388, 393, 396, 446, 453, 462, 494, 512

Unguents (1)

476

Urinary genital dis-ease (74)

9, 28, 31, 50, 54, 70, 73, 74, 93, 99, 106, 109, 110, 114, 115, 128, 161, 174, 175, 178, 181, 183, 185, 186, 195, 203, 214, 217, 226, 227, 244, 252, 253, 256, 266, 268, 269, 273, 280, 294, 297, 302, 308, 319, 330, 331, 336, 341, 368, 371, 383, 387, 392, 399, 425, 428, 440, 444, 445, 446, 452, 453, 462, 465, 466, 477, 494, 498, 506, 507, 520, 524, 531, 542

Water management (51)

24, 32, 36, 40, 67, 76, 78, 84, 93, 101, 141, 147, 162, 167, 170, 172, 178, 183, 188, 189, 191, 231, 260, 283, 295, 296, 297, 310, 316, 322, 330, 331, 358, 372, 392, 401, 410, 411, 414, 435, 446, 451, 471, 489, 499, 502, 508, 519, 546, 549, 550

References and Notes

-
- ¹ An agent that increases the milk flow in nursing women (also known as a galactagogue).
 - ² Claridge, G. *Drugs and Human Behaviour*. London, Allen Lane 1970.
 - ³ In this context chronological time is of little or no significance to the layman, and, hence, rarely, if ever, is a specific hour of time mentioned for taking the medicine.
 - ⁴ Tigani Al-Mahi. The use and abuse of drugs. Ahmad Al-Safi and Taha Baasher, editors. *Tigani Al-Mahi: Selected Essays*. 1st ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981, pp. 67-77.
 - ⁵ This belief may not be always incorrect, as certain bitter-tasting plants, such as bitter melon (*Momordica charantia*), do exert an antidiabetic effect.
 - ⁶ The parts used include the leaf, the root, the stem, the twig, the fruit, the seed, the bean, the tuber, the rhizome, the bark, and the flower. Exudates such as latex, gum, resin and oil are also employed.
 - ⁷ This name is borrowed from neighbouring Egypt.
 - ⁸ The incense is burnt while chanting loudly certain incantations. These incantations were documented by Abd Allah Al-Tayib in articles titled: The Changing Customs of the Riverain People of the Sudan in *Sudan Notes and Records*, starting 1956; 37(2): 56-.
 - ⁹ The *mushabara* is both the set of pregnancy protective taboos and the ailments that may befall the pregnant woman or her baby from the 7th month of pregnancy to the fortieth day after delivery. The word *mushabara* is derived from the Arabic word *shabr* (month). In Egypt, Crete and Iraq, the *mushabara* is a necklace of special beads women wear, and is associated with fertility and childbirth.
 - ¹⁰ Archibald, R.G. *Trans. R. Soc. Trop. Med. Hyg.* 1933; 27, 247.
 - ¹¹ An emmenagogue is an agent or measure that induces menstruation or 'bring down the courses' when the flow is irregular.
 - ¹² Maha Nasr El Din Babiker. Master of Veterinary Science, University of Khartoum, October 1988. (unpublished thesis).
 - ¹³ Burckhardt. *Travels in Asia*. 1819, pages 229 and 337.
 - ¹⁴ Nadel, S.F. The Nuba: An anthropological study of the Hill Tribes of Kordofan. London: Oxford University Press; 1947: 119.
 - ¹⁵ Broun, A.F.; Massey, R.E. *Flora of the Sudan*. London: Thomas Murley & Co.; 1929.
 - ¹⁶ Grove, E.T.N. *Sudan Notes and Records*. 1919: 2, 157.
 - ¹⁷ Anderson, R.G. Some Tribal Customs and Their Relation to Medicine and Morals of the Nyam-Nyam and Gour People inhabiting the eastern Bahr El Ghazal. *Wellcome Research Laboratories Report*. London: Bailliers, Tindall and Cox; 1911; 4A: 0.39-277.
 - ¹⁸ Evans-Pritchard, E.E. *Witchcraft, Oracles and Magic among the Azande* (1937): Abridged with an introduction by Eva Gilles. Clarendon Press: Oxford: 1976.
 - ¹⁹ Brock, Major R. G. C. Some Notes on the Azande Tribe as found in the Meridi District (Bahr El Ghazal Province). *Sudan Notes and Records*. 1918; 1: 249-262.
 - ²⁰ Anderson, R.G. Op. Cit. 239.
 - ²¹ Seligman, C.C.; B.Z. *Pagan Tribes of the Nilotic Sudan*. London: Routledge; 1932.
 - ²² Quoted by Gall and Clarac (1911), *Traite de pathologie exotique*, Vol. v. Impoisonnements. Paris: Balliere et Fils. (Quoted by Kirk op. cit).

-
- ²³ Grindley, D.N. (1943). The information was circulated in Sudan Medical Service Circular Letter of 12th June 1943. (Quoted by Kirk Op. Cit.).
- ²⁴ Kirk R. Some Vegetable Poisons of the Sudan. *Sudan Notes and Records*. 1946: 27: 127-157.
- ²⁵ Kirk, R. Op. Cit., page 147.
- ²⁶ Zugnoni, Father J. Yilede, a secret society: Among the Gbay "Kreish", Aja, and Banda tribes of the Western District of Equatoria. *Sudan Notes and Records*: 106-111.
- ²⁷ Anderson, R.G. Medical Practices and Superstitions Among the People of Kordofan. *Third Report of the Wellcome Research Laboratories at the Gordon Memorial College*, Khartoum, 1908: 281-322.
- ²⁸ Muhammad Ibn 'Omar Al-Tunisi. *Tashbih Al-Adhban Bi-Sirat Bilad Al-'Arab Wa-'l-Sudan* (Arabic), (Editors) Khalil M. 'Asaker and Mustafa M. Mus'ad, Cairo: Al Dar Al Masriya Lil-Ta'lif wal-Tarjama, 1965 : 328.
- ²⁹ Hussey, Eric R. J. Crocodile Charmers [Note] *Sudan Notes and Records*; 1918; 1: 206-207.
- ³⁰ Muhammad Al-Nur Ibn Daif Allah (-1809). *Kitab Al-tabaqat fi khusus Al-awliya wa l-salihin wa l-ulama wa l-shu'ara* (1805?) ed. Yusuf Fadl Hasan, Khartoum: Khartoum University Press, 1985: 51-54.
- ³¹ Muhammad Al-Nur. Op. Cit.
- ³² Ahmad Al-Safi; Taha Baasher, Editors. *Tigani Al-Mahi: Selected Essays*. Ist ed. Khartoum: Khartoum University Press; 1981; University of Khartoum, Silver Jubilee-1956-1981. 187 pages. Page 91.
- ³³ Anderson, R.G. 1911 Op. Cit.
- ³⁴ Though names of *marisa* differ from place to place, its methods of preparation are essentially the same. Abu Salim described *marisa*-making in northern Sudan, and several travellers described it in the last three centuries.
- ³⁵ Krump, Theodor (1660-1724). *High and fruitful palm-tree of the Holy Gospel* ... [German]. Augusburg; 1710. 510 pages. Note: The book has a title 198 words long. Page 246.
- ³⁶ Kirk, R. Op. Cit. 135.
- ³⁷ *Dofr*, in addition, is a valued item in perfumes, and an indispensable ingredient in fumigation mixtures.
- ³⁸ Tigani Al-Mahi. Op. Cit., page 130.
- ³⁹ Naom Shuqair. *Gughrifiyat wa Tarikh Al-Sudan*, (1903) [Arabic] Beirut: Dar Al-Thaqafa; Many editions, 1972: page 201.
- ⁴⁰ For more information on this plant see Ibn Rasoul, Yusuf Ibn Umar Ibn Ali (D. 694 A.H.), King of Yemen. *Al-Mu'tamad fi Al-Adwiya Al-Mufrada* [Arabic]. Beirut: Dar Al-Ma'rifa; 1982, and Daoud Al-Darir (the blind) Al-Antaki (of Antioch) *Tazkirat Ulil Alhab wa Al-jami' lil 'Ajab Al-Ujab*, Cairo: 1836. Many editions in Arabic.
- ⁴¹ Naom Shuqair. Op. Cit., 223-292.
- ⁴² Abu Umar Al-Mikashfi of the Shikeiniba village in Gezira region, Central Sudan.
- ⁴³ Ahmad Wad Al-Turabi Al-'Araki of Al-Talha village, was originally buried in Abu Haraz village in the eastern part of the Gezira. Later, his remains were removed to Al-Talha village, which has been known ever since as Talhat Wad Al-Turabi. His *hafir*, (water pond) there became a source of the blessed *tinat* (clay).

-
- ⁴⁴ *Jardiqa* is dug out of a shallow lake in a volcano crater called Malha in Jebel Medab in Darfur. The Kababish and Kawahla Arabs use it for fattening cattle.
- ⁴⁵ *Turaiba* is also obtained from around the towns of Bara in the Western Sudan, Atbara in northern Sudan, Kosti in southern Sudan or from Qoz Rajab.
- ⁴⁶ *First Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum 1904: 237.*
- ⁴⁷ A couple of pounds, more or less, of the earth is treated with hot water and, in the morning, the clear dark brown supernatant liquid is poured off and drunk. (*First Wellcome Research Laboratories Report, 1904; 239*).
- ⁴⁸ First Wellcome ... Op. Cit. 239.
- ⁴⁹ Anderson. R.G. Op. cit.: 1908.
- ⁵⁰ Application of *kohl* to the umbilicus of the newborn is also a common practice in Saudi Arabia.
- ⁵¹ Worley, M.A., Blackedge, P. O'Gorman, P. Lead poisoning from eye cosmetic. *British Medical Journal* 1968: 1 : 117.
- ⁵² Al-Kaff I. Ali, et al. Kohl--the traditional eyeliner: use and analysis. *Annals of Saudi Medicine*. 1993 (January) 13(1): 26-30.
- ⁵³ Due to the influx of goods from Saudi Arabia through the massive migrant Sudanese, and individuals visiting the country for *Ummra* and pilgrimage, some of these commercial products could be introduced in the Sudan. This is not to mention the possibility of introducing the same or similar products directly from India and Egypt together with other medicinal items and cosmetics.
- ⁵⁴ Tabbara, K.F., Burd, E.M. Microbial content of *kohl*. *Annals of Saudi Medicine* 1987; 7(3): 177-9.
- ⁵⁵ Ahmad Bayoumi. *The History of Sudan Medical Service*. Nairobi Kenya Literature Bureau, 1979: 316-7.
- ⁵⁶ The scientific name of a plant is its genus and species (binomial), including authority (often referred to simply as the Latin name).
- ⁵⁷ The International Plant Names Index (IPNI) is a database of the names and associated basic bibliographical details of all seed plants, ferns and fern allies. Its goal is to eliminate the need for repeated reference to primary sources for basic bibliographic information about plant names. The data are freely available and are gradually being standardized and checked. IPNI is the product of a collaboration between The Royal Botanic Gardens, Kew, the Harvard University Herbaria, and the Australian National Herbarium.
- ⁵⁸ ITIS, the Integrated Taxonomic Information System contains authoritative taxonomic information on plants, animals, fungi, and microbes of North America and the world. ITIS is a partnership of U.S., Canadian, and Mexican agencies (ITIS-North America); other organizations; and taxonomic specialists. ITIS is also a partner of Species 2000 and the Global Biodiversity Information Facility (GBIF).
- ⁵⁹ Reference here is made to the recommendations of Diversitas, Systematics Agenda 2000, Global Taxonomy Initiative of the Convention of Biological Diversity), etc.