Traditional uses of Iraqi medicinal plants

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Abstract:
This study illustrates the importance of Iraqi medicinal plants in the treatment and management of human diseases and ailments as known by traditional medicine.

INTRODUCTION:
Medicinal plants are the Nature’s gift to human beings to help them pursue a disease-free healthy life. Herbal Medicine is the oldest form of medicine known to mankind. It was the mainstay of many early civilizations and still the most widely practiced form of medicine in the world today. The knowledge of plant properties was acquired by ancient civilization that passed down from generation to generation. Recent estimates suggest that over 9,000 plants have known medicinal applications in various cultures and countries. Plants produce chemical compounds as part of their normal metabolic activities. Plants are a valuable source of a wide range of secondary metabolites, which are used as pharmaceuticals, agrochemicals, flavours, fragrances, colours, biopesticides and food additives (1-3). This review is an attempt to highlight the traditional uses of Iraqi medicinal plants.

Table 1: Traditional uses of Iraqi medicinal plants

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<th>Plants</th>
<th>Traditional uses</th>
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<tbody>
<tr>
<td><strong>Achillea santolina</strong></td>
<td>The plant is used in traditional medicine as antidiabetic and anti-inflammatory drug. It was also used to relieve pain or dryness of the navel, stomach pain or gas and to relieve the symptoms of common cold.</td>
<td>4-6</td>
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<tr>
<td><strong>Adiantum capillus-veneris</strong></td>
<td><em>Adiantum capillus-veneris</em> is one of the most common species with potential importance for medicinal and nutritive purpose. Adiantum species were used for chest complaints, cough and cold, as expectorant, to increase lactation, to aid kidney function, antiparasitic and dandruff. The fresh or dried leafy fronds were used as antidandruff, antitussive, astringent, demulcent, depurative, emetic, weak emmenagogue, emollient, weak expectorant, febrifuge, galactogogue, laxative, pectoral, refrigerant, stimulant, sudorific and tonic. The dried fronds of the plants are used to make a tea for the same purposes.</td>
<td>7-10</td>
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<tr>
<td><strong>Adonis aestivalis</strong></td>
<td>Infusions of <em>A. aestivalis</em> are used as diuretic, spasmylytic, sleeping draught, and cough medicine. Species of <em>Adonis</em> are used to create medicines for stimulating heart function. The substance used is similar to those of <em>Digitalis</em> (foxglove) and are often prescribed in its place, to avoid the long-term effects of digitalis-derived drugs.</td>
<td>11-12</td>
</tr>
<tr>
<td><strong>Agrimonia eupatoria</strong></td>
<td>It has been reported to be useful in gallbladder disorders. Numerous other reported uses include use as a dye, flavoring, gargle for performers and speakers, antitumor agent, astringent, cardiotonic, coagulant, diuretic, sedative, antiasthmatic and for corns or warts. It is also used as Antiinflammatory, cholagogue, mild haemostatic, antibacterial, for irritations and infections of the intestinal tract, gallbladder diseases, hyperacidity, colic, urinary disorders (bedwetting, incontinence), sluggish liver, mucus</td>
<td>13-14</td>
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<tr>
<td><strong>Traditional uses of Iraqi medicinal plants</strong></td>
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<tr>
<td><strong>Agropyron repens</strong></td>
<td>It was used as soothing diuretic, calming pain and spasm in the urinary tract. It is also used as demulcent, diuretic and tonic. It was widely used in children’s conditions associated with urinary system (e.g. enuresis and urinary incontinence), for the control of symptoms of urinary disease, prostatic disease, rheumatism, urinary calculi and urinary infections (cystitis, urethritis, prostatitis).</td>
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<tr>
<td><strong>Ailanthus altissima</strong></td>
<td><em>Ailanthus altissima</em> was used in traditional medicine for treatment of dysentery, gonorrhea, hemorrhoids and a remedy for cough, gastric and intestinal upsets. The bark is prescribed to treat anemia, diarrhea, hemorrhage and spermatorrhea. It is also used as antispasmodic, antiasthmatic, cardiac depressant, astringent and for treatment of epilepsy.</td>
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<tr>
<td><strong>Alhagi maurorum</strong></td>
<td><em>Alhagi maurorum</em> plants are grazed by livestock. It is cut in late spring and used for making hay for small livestock and camels. Manna, a sugar exudate, is formed on stems and leaves and shaken from the bushes at flowering. In Indian markets it is sold under the name ‘torajabin’ and is imported from Afghanistan and Iran. Today, manna is used for extracting mannitol, made into tablets and used in the cosmetic and pharmaceutical industries to produce laxatives, diuretics and sweeteners. It composed from monomeric units mainly consisting of galactose and uronic acids. <em>Alhagi maurorum</em> Boiss is customarily used in folk medicine as a remedy for rheumatic pains, bilharziasis, liver disorders, various types of gastrointestinal discomfort, general tonic, anthelmintic, to treat constipation, jaundice, and arthritis. It also used as diuretic, blood purifier, antimicrobial, for treatment of dysentery, upper respiratory system problems, wounds, hemorrhoids and uterine problems. The roots were used as aphrodisiac. The plant is used as laxative, diuretic and expectorant in India and oil is extracted from leaves for curing rheumatism. A decoction made from seeds of <em>Alhagi maurorum</em> is used for curing kidney stones.</td>
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<tr>
<td><strong>Allium cepa</strong></td>
<td><em>Allium cepa</em> was used traditionally as carminative, emmenagogue, contraceptive, expectorant, anthelmintic, aphrodisiac, and tonic. It was also used in the treatment of cholera, bronchitis, bruises, earache, colic, insect bites, tuberculosis, diabetes, dropsy, catarrh, scurvy, epileptic fits, hysterical fits, fevers, hypertension, jaundice, pimples, and sores.</td>
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<tr>
<td><strong>Allium porrum</strong></td>
<td>Leek may be eaten raw or cooked, in salads. The whole plant was used as expectorant. The juice of the plant was used as a moth and insects repellent.</td>
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<tr>
<td><strong>Allium sativum</strong></td>
<td>Garlic used traditionally as expectorant, for the treatment of asthma, antipyretic, sedative, aphrodisiac, diuretic, emmenagogue, carminative, to promote hair growth, for the treatment of dyspepsia, urinary and respiratory tract infections and cardiac complains.</td>
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<tr>
<td><strong>Allium schoenoprasum</strong></td>
<td>In traditional folk medicine chives were eaten to treat and purge intestinal parasites, enhance the immune system, stimulate digestion, and treat anemia.</td>
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<tr>
<td><strong>Aloe vera</strong></td>
<td>The plant has been used in cosmetic preparations for the treatment of pimples, acne, mouth ulcers, control bleeding, itching of piles, arthritic pains, mild laxative, wash for piles, abscesses and scabies, dysentery and renal colic. The plant also used as emmenagogue, treatment of burns, oedema, pain, swellings and wounds. The juice from the leaves was used to</td>
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<thead>
<tr>
<th>Plant</th>
<th>Uses</th>
<th>References</th>
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<tbody>
<tr>
<td><em>Alpinia galanga</em></td>
<td><em>Alpinia galanga</em> has been used for the treatment of eczema, bronchitis, coryza, morbil, pityriasis versicolor, otitis interna, gastritis, ulcers, cholera. The seed of <em>A. galanga</em> is used for emaciation and to clean the mouth, stimulates the digestive power, appetite and acts as a purgative. The rhizome is generally used as a spice or source of essential oil throughout its distribution area. The flowers and young shoots are used as a vegetable or as a spice.</td>
<td>49-50</td>
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<tr>
<td><em>Althea officinalis</em></td>
<td>A. <em>officinalis</em> was widely used in the irritation of oral, pharyngeal mucosa and associated dry cough, mild gastritis, skin burns and for insect bites. It was also used in catarrh of the mouth, throat, gastrointestinal tract and urinary tract, as well as for inflammation, ulcers, abscesses, burns, constipation and diarrhea.</td>
<td>51-52</td>
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<tr>
<td><em>Althea rosea</em></td>
<td>It was used as expectorant, cooling and diuretic, cough mixtures, and emmenagogue. Decoction of flowers is used as anti-inflammatory, febrifuge, demulcent and astringent agent. As a demulcent and astringent, the roots were useful in the treatment of ulcers. Flowers as well as roots were used in the treatment of inflammation of the kidneys and the uterus. Seeds were thought to be diuretic and febrifuge.</td>
<td>53-55</td>
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<tr>
<td><em>Ammannia baccifera</em></td>
<td>It was used for urinary calculi, and blister formation in cure of herpetic eruptions, in rheumatic pains, ring worm and other skin diseases. The leaves or the ashes of the plant, mixed with oil, are applied to cure herpetic eruptions. The fresh, bruised leaves have been used in skin diseases as a rubefacient and as an external remedy for ringworm and parasitic skin affection. In the Philippines, the fresh leaves were bruised and applied to the skin to raise blisters and treat biliousness. In India, the leaves were used to stimulate appetite, relieve the bowels of costiveness, promote digestion, and stimulate venereal desire (Ayurveda). In Iraq, the leaves were used for skin diseases and as a rubifacient.</td>
<td>56-58</td>
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<tr>
<td><em>Ammi majus</em></td>
<td>The fruits were used for the treatment of skin disorders, psoriasis and vitiligo. It was also used as an emmenagogue to regulate menstruation, as a diuretic, and for treatment of leprosy, kidney stones, and urinary tract infections.</td>
<td>59-61</td>
</tr>
<tr>
<td><em>Ammi visnaga</em></td>
<td>The fruits of <em>Ammi visnaga</em> were uses in the treatment of mild anginal symptoms. As supportive treatment of mild obstruction of the respiratory tract in asthma, bronchial asthma or spastic bronchitis, and postoperative treatment of conditions associated with the presence of urinary calculi. Treatment of gastrointestinal cramps and painful menstruation. Internally as an emmenagogue to regulate menstruation, as a diuretic, and for treatment of vertigo, diabetes and kidney stones.</td>
<td>62</td>
</tr>
<tr>
<td><em>Anagallis arvensis</em></td>
<td>It was used for treatment of various ailments such as gout, dropical affections, epileptic attacks, cerebral affections, leprosy, hydrophobia, mania and other complains of the nervous system. In Europe, the plant was also used as diuretic, diaphoretic, expectorant and for the treatment of dropsy, rheumatism and hepatic and renal complaints. In Chinese medicine, the herb was used for snake bites, dog bites, in joint ailments and in edema.</td>
<td>63-65</td>
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<tr>
<td><em>Anagris foetida</em></td>
<td>It was used as laxative, pectoral, purgative, and vermifuge. The seeds were used in the treatment of eczema; as purgative; emetic and for the treatment of renal disease.</td>
<td>66-67</td>
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<tr>
<td><em>Anchusa italica</em></td>
<td>It was used as stimulant, tonic, demulcent; used in bilious</td>
<td>68-70</td>
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<tr>
<td>Anchusa strigosa</td>
<td>It was used as anti-ulcer, for wound healing, as a tonic and tranquilizer, as a diuretic and for abdominal pain. It was also used as diaphoretic antipyretic, narcotic, antipyretic, antirheumatic, cathartic, hypnotic and anti-arthritis.</td>
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<tr>
<td>Andrachne aspera</td>
<td><em>Andrachne aspera</em> Spreng was used to relieve pain and reduce fever. The roots are eaten as an anti-emetic. An extract of the aerial parts is drunk as a poison antidote, and to treat headache and stomach-ache. The plant was used to improve eyesight and to treat eye sores.</td>
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<tr>
<td>Anethum graveolens</td>
<td>Dill has been used as a popular aromatic herb and spice that has a very long history of use going back to more than 2,000 years. It was used as a remedy for indigestion and flatulence and as milk secretion stimulant. Moreover, it was used as an anticonvulsant, anti-emetic, anti-cramp (in children), as a wound healer and to increase the appetite and strengthen the stomach.</td>
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<tr>
<td>Anthemis nobilis</td>
<td>The cold infusion was used in gastric debility, with flatus; the hot infusion was used as diaphoretic, emetic, to relieve colds due to sudden cutaneous chilling, in dysmenorrhea to decrease pain and facilitate the flow, as antiemetic, antispasmodic, and sedative. The oil was used as carminative, and for intestinal cramps and colic due to flatulence.</td>
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<tr>
<td>Antirrhinum majus</td>
<td>The cultivated snapdragon, <em>Antirrhinum majus</em> was used as a model for biochemical and developmental genetics. It emerged as a model organism during early studies of inheritance and mutation because of its diploid inheritance, ease of cultivation, and variation in morphology and flower color. However, for medical purposes, it was used traditionally as a diuretic, for treatment of scurvy, liver disorders, tumors and as detergent and astringent. The leaves and flowers were used as antiphlogistic, resolvent and stimulant. They have been employed in poultices on tumours and ulcers. The plant was also used in the treatment of all kinds of inflammation and in haemorrhoids.</td>
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<tr>
<td>Apium graveolens</td>
<td>It has been used for arthritis, rheumatism, gout, urinary tract inflammation, and specifically for rheumatoid arthritis with mental depression. Celery is also used as a diuretic, for regulating the bowels, for glandular stimulation, gall and kidney stones, as a prophylactic for nervous agitation, for the loss of appetite and exhaustion and as antihelminthic.</td>
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<tr>
<td>Arachis hypogaea</td>
<td>Peanut oil was added to ointments and medicinal oils, and applied rectally in rectal constipation. It was also used in dermatology for crusting and scaling of the scalp (with hair), baby care and dry skin. Other applications including its use as a bath additive for subacute, chronic eczema, atrophic eczema and ichthyosis. The pharmaceutical and medical industries use peanut oil as a vehicle for medication in external, enteral or parenteral preparations; the cosmetics industry uses it in skin, sun and massage oil. Domestically, it was used as a salad or cooking oil that is said to lower blood cholesterol levels. Peanut oil was also used for constipation, neuralgia and dislocated joints.</td>
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<tr>
<td>Arctium lappa</td>
<td>Preparations of Burdock Root were used for ailments and complaints of the gastrointestinal tract, as a diaphoretic and...</td>
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<table>
<thead>
<tr>
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<tr>
<td><strong>Aristolochia maurorum</strong></td>
<td>The root was used as an antiseptic and for wound healing.</td>
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<td><strong>Artemisia campestris</strong></td>
<td><em>Artemisia campestris</em> flowers were used as hypoglycemic, cholagogue, choleretic, digestive, depurative, antilithiasic, and for the treatment of obesity and to decrease cholesterol. It was used as a decoction as antivenin, anti-inflammatory, antirheumatic and antimicrobial.</td>
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<tr>
<td><strong>Arundo donax</strong></td>
<td>Medicinally, the rhizome or rootstock was used for dropsy. Root or rhizome boiled in wine with honey and used for cancer. <em>Arundo donax</em> was also used for condylomata and indurations of the breast. The root infusion was used as antagalactagogue, depurative, diaphoretic, diuretic, emollient, hypertensive, and sudorific.</td>
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<tr>
<td><strong>Asclepias curassavica</strong></td>
<td>The roots were used as a cheaper alternative to ipecacuanha as an emetic. It also used as purgative, haemostatic in bleeding wounds and haemorrhoids, for treatment of gonorrhoea, inflamed spleen, pneumonia, mastitis, warts, cancer, caries, fever and pyoderm. <em>Asclepias curassavica</em> is used in China to disperse fever (clears heat), improve blood circulation and to control bleeding. Entire plant is dried and decocted is used as a cardiac tonic, also for tonsillitis, pneumonia, bronchitis, urethritis and externally for wounds and other types of external and internal bleeding.</td>
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<tr>
<td><strong>Asparagus officinalis</strong></td>
<td>Traditionally, the roots were used for non-specific inflammatory diseases of the efferent urinary tract and for prevention of kidney and bladder stones (irrigation therapy), dropsy, rheumatic conditions, liver disease, bronchial asthma and gout. In Chinese medicine, the root was also used to treat irritable cough, coughing with blood, dry mouth and throat, and constipation.</td>
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<tr>
<td><strong>Asperula arvensis</strong></td>
<td><em>Asperula arvensis</em> L. was useful for curing quincy. The whole herb decoction used for tonsillitis, it was also used as astringent.</td>
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<tr>
<td><strong>Asphodelus fistulosus</strong></td>
<td>The roots of <em>Asphodelus fistulosus</em> L. were used as a cutaneous disinfectant, against burns and to treat respiratory ailments. The Seeds were used as diuretic and applied externally to ulcer and inflamed parts. Ash of the roots was mixed with oil and used externally in baldness, mixed with vinegar and used on ringworm, and applied to skin blotches and pigmentation. Internally, ash was used as diuretic, anti-inflammatory and as emmenagogue.</td>
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<tr>
<td><strong>Asplenium ruta-muraria</strong></td>
<td>The fronds were used as astringent, deobstruent, emmenagogue, expectorant and ophthalmic herbal remedy. The leaves being used for scalp problems, such as excess scurf.</td>
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<tr>
<td><strong>Asplenium trichomanes</strong></td>
<td><em>Asplenium trichomanes</em> was used for feverish complaints, hair tonic, cough cure known as (maidenhair), an ingredient boiled with honeysuckle and oatmeal into a concoction taken for dysentery. It also use to stimulate menstruation and as astringent, diuretic, expectorant and sedative. <em>Asplenium trichomanes</em> L. is used as an expectorant, anti-cough remedy, laxative, abortifacient and for irregular menses. It is also used for parturition due to abortifacient effects. Decoction of fresh/dried plant (2-3 tsp./5 ml) used in abscess of uterus.</td>
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<th>Name</th>
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<tr>
<td><strong>Astragalus hamosus</strong></td>
<td>The plant was used as demulcent, emollient, galactogogue and laxative. It was also used in treating irritation of the mucous membranes, nervous affections and catarrh. Young seedpods were used in salads. It is described to possess anti-inflammatory effect and is used as an anti-inflammatory agent by Unani physicians in various inflammatory disorders.</td>
<td>128-131</td>
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<tr>
<td><strong>Astragalus tribuloides</strong></td>
<td>The herb was used as emollient and demulcent. In the Chinese medical system, astragalus affects both the spleen and the lung meridians. It was indicated for spleen deficiency symptoms such as diarrhea, fatigue, spontaneous sweating, and lack of appetite. Astragalus tonifies the lungs and was used in cases of frequent colds and shortness of breath. Other traditional indications include wasting disorders and night sweats.</td>
<td>132-134</td>
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<td><strong>Atriplex hortensis</strong></td>
<td>The use of this plant as a remedy for an illness called ‘yellow jaundice’ is said to account for the name Orache as it is believed to be a corruption of Latin aurum (gold) with reference to the illness. It was considered as diuretic, emetic, and emollient, orache has been suggested as a folk remedy for plethora and lung ailments. Seeds mixed with wine are said to cure yellow jaundice. They also excite vomiting. Heated with vinegar, honey and salt, orache is used for gout. Fruits are purgative and emetic. Liniments and emollients prepared from the whole plant, like the juice of the plant, are said to be folk remedies for induations and tumors, especially of the throat. It helps absorb nutrients from food, stimulates digestion and speeds up metabolism.</td>
<td>135-137</td>
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<tr>
<td><strong>Avena sativa</strong></td>
<td>It was used in traditional medicine to treat various nervous disorders, as a brain tonic to enhance memory development, learning, and concentration, and to provide relief to patients with anxiety; it was also used as a stomachic, a digestive, rejuvenate, for skin disorders, and as an antiepileptic, antipyretic, and analgesic.</td>
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<tr>
<td><strong>Bacopa monniera</strong></td>
<td>Leaves of <em>Ballota nigra</em> were used as an antidote for the bite of a mad dog. It was used in European countries as sedative and tranquilizer. It is also used externally for wound-healing properties and internally for gastrointestinal disorders. However, internally, it is used as a sedative in cases of hysteria and hypochondria, as a spasmylytic for stomach cramps and complaints, for whooping cough and to increase bile flow. It is also used to treat nervous, upset stomach, nausea and vomiting. In France, it is traditionally used in the symptomatic treatment of nervous disorders in adults and children, especially for sleep disorders and for the symptomatic treatment of coughs. Furthermore, its enemas and suppositories are used against worm infestation. Externally, it is used for gout.</td>
<td>142-147</td>
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<tr>
<td><strong>Ballota nigra</strong></td>
<td>The bamboo has been described as one of the most useful and beautiful plants in the world. With good management, the bamboo is an excellent ornamental plant for landscaping, for use as a windbreak or as a screen plant. It is widely used for many purposes including production of edible shoots, furniture, chipboard, baskets, crafts, wall cladding, weaving,</td>
<td>148-149</td>
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The hedge bamboo, has attractive slender, arching stems. These grow to 3 to 8 m high and are good for screening and stakes. There are about 10 types and the yellow-stemmed Alphonse-Karr (yellow stem with green stripes) and silver stripe are especially good ornamental varieties. Bamboo shoots were common in Asian cooking. All bamboo varieties have edible shoots, but species with large and sweet shoots are mainly used for this purpose. These have good supplies of carbohydrates, proteins, minerals and vitamins. They are harvested in spring and summer when they are less than 60 cm tall. The shoots are boiled for 15 to 30 minutes in salty water. It was also used in the production of foodstuffs and traditional medicines. In particular, the leaves are used for treating fever and as a detoxifier, the leaves were also used to cure or ameliorate stomach ache, diarrhea, vomiting, chest, diaphragm inflammation, restlessness and excessive thirst. The decoction of the leaves was also used as emmenagogue, anthelmintic, aphrodisiac and tonic.

| **Bauhinia variegata** | It is traditionally used in the treatment of bronchitis, leprosy, and tumors. The stem bark is used as astringent, tonic, anthelmintic and antidiabetic. Infusion of the leaves is used as laxative and for the treatment of piles. Dried buds are used in the treatment of worm infestations, tumors, diarrhea, and piles. | 150-154 |
| **Bellis perennis** | It was used traditionally as an expectorant, diuretic, anti-inflammatory, antipyretic, vulnerary, antispasmodic, astringent, ophthalmic, homeostatic and the flowers and young leaves are used as a vegetable. *Bellis perennis* was also used in the treatment of common cold, stomachache, eye diseases, eczema, skin boils, gastritis, enteritis, diarrhea, bleeding, rheumatism, inflammation, and infections of the upper respiratory tract in traditional medicine. In homeopathic therapy, It was said that the plant acts upon the muscular fibers of the blood-vessels. Much muscular soreness. Lameness, as if sprained. Venous congestion, due to mechanical causes. First remedy in injuries to the deeper tissues, after major surgical work. Results of injuries to nerves with intense soreness and intolerance of cold bathing. After gout, debility of limbs. Traumatism of the pelvic organs, auto-traumatism, for sprains and bruises. Complaints due to cold food or drink when the body is heated, and in affections due to cold wind. Externally, in naevi. Acne. Boils all over. sore, bruised feeling in the pelvic region. | 155-161 |
| **Benincasa hispida** | It was used traditionally, in the treatment of arthritis, boils, fever, gout, headache, kidney stones, rheumatism and worms. The leaves were used as antibacterial, diaphoretic, in the treatment of gonorrhea, diarrhea, dysentery, and cholera. The essential oil was used for eczema and psoriasis, *Betula alba* bud oil was also widely used in cosmetic products, as a tonic | 162-166 |
| **Betula alba** | It was used traditionally, in the treatment of arthritis, boils, fever, gout, headache, kidney stones, rheumatism and worms. The leaves were used as antibacterial, diaphoretic, in the treatment of gonorrhea, diarrhea, dysentery, and cholera. The essential oil was used for eczema and psoriasis, *Betula alba* bud oil was also widely used in cosmetic products, as a tonic | 167-173 |
| **Bidens tripartitus** | It was used as a diuretic, sudorific, anti-inflammatory agent and to stimulate the immunological system. Bur-mari gold herb is also a remedy for ruptured blood vessels and bleeding of every description. In addition, it was used in the treatment of skin diseases, in treating fevers, gravel, stone, bladder and kidney troubles. | 174-176 |
| **Brassica nigra** | The plant was used in the treatment of rheumatism, as an agent to reduce congestion in internal organs. In addition, it was applied in neuralgia and spasms, alopecia, epilepsy, snakebite, and toothache. It was also used to treat carcinoma and throat tumors. A liquid prepared from the seed, when gargled, is said to help tumors of the sinax. The seed was eaten as a tonic and appetite stimulant. Hot water poured onto bruised mustard seeds makes a stimulating foot bath and can also be used as an inhaler where it acts to throw off a cold or dispel a headache. Mustard oil is said to stimulate hair growth. Mustard is also recommended in hiccup. It was also considered antiseptic. *Brassica nigra* is also traditionally used as simple rubefacient, diuretic, emetic, pneumonia, bronchitis, nerve stimulant and vesicant. | 177-179 |
| **Brassica rapa** | *Brassica rapa* is one of the oldest cultivated vegetables. It is a very popular crop for its edible parts (swollen roots, leaves, and more recently sprouts), being consumed in enormous quantities throughout the world, due to its nutritional properties. In addition, it is also important for the production of edible/industrial oils. *Brassica rapa* was used traditionally to treat a variety of diseases, such as hepatitis, jaundice, furuncle sore throats, as antiscorbutic, antiarthritic, resolvent, stimulant, for the treatment of stomach complain and as laxative. It is known in the Unani and Arab traditional medicine for its use in chronic gastritis, constipation, cholecystitis, cholecystolithiasis and in liver diseases. | 180-182 |
| **Bryonia dioica** | It was used for both internal and external uses. It was taken orally in small quantities for the treatment of various inflammatory conditions, bronchial complaints, asthma, intestinal ulcers, hypertension and arthritis. Externally, it is applied as a rubefacient to muscular and joint pains and pleurisy. It has been reported that the plant is used in folk medicine as a drastic purgative, emetic, bitter tonic and antidiabetic agent. It was also used in dropsy, sciatica, rheumatism and lumbago. Its use as cathartic, was discontinued because of its powerful and highly irritant nature. It was still considered useful in small doses for cough, influenza, bronchitis, pneumonia, pleurisy and whooping-cough, to relieve the pain and decrease the cough. | 183-184 |
| **Bryophyllum calycinum** | The leaves and leaf juice were used as antiviral, antipyretic, antimicrobial, antiinflammatory, antitumor, hypcholesterolemic, antioxidant, diuretic, antiulcer, anti diabetic, astringent, antiseptic, antilithic and cough suppressant. | 185-191 |
| **Caccinia crassifolia** | The whole plant decoction is used as tonic, demulcent and for rheumatism. It was also used for hepatic disorders and dermal infections. Leaves were used as diuretic, antiinflammatory, demulcent; for strangury, asthma and cough. Aerial parts were used as sedative, Treatment of Cough and Expectorant. | 192-193 |
| **Caesalpinia crista** | Roots were used as diuretic and anticalculus. The powder was used for the treatment of diabetes in Nicobar Islands. Seeds were considered febrifugal, periodic, tonic, and vesicant. They are used to treat colic, convulsions, leprosy. | 194-201 |
and palsy. The oil from the seeds is said to soften the skin and remove pimples. The bark is rubefacient and used to counteract toothache. The different parts such as leaves, seed, root, bark were also used in colic fever, intermittent fever, malaria, menstrual complaints, pneumonia, skin diseases, swelling, tonic, pulmonary tuberculosis and as a uterine stimulant, to cleanse the uterus. It also alleviates the fever, edema and abdominal pain during this period.

<table>
<thead>
<tr>
<th><strong>Calamintha graveolens</strong></th>
<th>Its decoction soaked in water was used as stimulant and for the treatment of Impotence, acne, eczema, depression and as nerves tonic. The seeds were stimulant and aphrodisiac.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calendula officinalis</strong></td>
<td><em>C. officinalis</em> was used traditionally in the treatment of inflammations of internal organs, gastrointestinal ulcers and dysmenorrhea, as a diuretic and diaphoretic and for convulsions. It was also used for inflammations of the oral and pharyngeal mucosa, wounds and burns. <em>Calendula</em> tea was used as eyewashes, gargles, diaper rashes and other inflammatory conditions of the skin and mucous membranes.</td>
</tr>
<tr>
<td><strong>Calotropis procera</strong></td>
<td>Whole plant was used to treat common diseases such as fever, rheumatism, indigestion, cold, eczema, diarrhoea, for the treatment of boils, to remove thorn from body and for the treatment of jaundice. The root was used for the treatment of eczema, leprosy, elephantiasis, asthma, cough, rheumatism, diarrhoea and dysentery. In case of diarrhoea it changed the faecal matter into a semisolid mass within the first day of treatment. The stem was used for the treatment of skin diseases, enlargements of abdominal viscera, intestinal worms, leprosy and cure leucoderma. The plant was recommended in leprosy, hepatic and splenic enlargements, dropsy and worms. The latex is applied to painful joints and swelling, fresh leaves were also use for the same purpose. Oil of the leaves was applied to paralyzed part. The milkly juice was used in India as purgative, while flowers were considered as digestive, stomachic, tonic and useful in cough, asthma catarrh and loss of appetite. The root bark was said to promote secretion and to be useful in treating skin disease, enlargement of abdominal viscera, intestinal worms, ascites and anasarca.</td>
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<tr>
<td><strong>Canna indica</strong></td>
<td><em>Canna indica</em> was used for the treatment of malaria, as a cure for diarrhoea and dysentery and in the treatment of bruises and cut . It was also used as diaphoretic, diuretic, and in treating fever and dropsy. The root decoction was used for the treatment of fever, dropsy, and dyspepsia. Seed juice is used to relieve earaches. The flowers were said to cure eye diseases. The large and much branched rootstock were full of edible starch. The younger parts may be finely chopped and then boiled or pulverized into a meal. Mix in the young shoots of palm cabbage for flavoring. The powdered tubers were used to thicken sauces and improve the texture of some prepared foods .</td>
</tr>
<tr>
<td><strong>Capparis spinosa</strong></td>
<td>The whole plant was used for rheumatism. Roots were used as diuretic, astringent, and tonic. Bark root, which has a bitter taste, was used as appetizer, astringent, tonic, antidiarrheic and to treat hemorrhoids and spleen disease. Bark was also used for gout and rheumatism, as expectorant, and for chest diseases. Infusion of stems and root bark were used as antidiarrheic and febrifuge. Fresh fruits were used in sciatica, and dropsy. Dried and powdered fruit combined with honey was used in colds, rheumatism, gout, sciatica and backache.</td>
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</table>
As decoction, it was used for gastric pain and applied on the body for the treatment of epilepsy. Seeds were used in feminine sterility and dysmenorrheal and to relieve toothache. Crushed seeds were used for ulcers, scrofula, and ganglions. The crushed leaves were applied in a poultice on the front against headache, on the face against toothache. The plant’s decoction is said to clean eyes.

**Capsella bursa-pastoris**

The plant was used medicinally as haemostatic, diuretic and antipyretic in China and Japan for many centuries. The whole plant was used to treat edema caused by nephritis, odynuria, hemafecia, menorrhagia, chyluria and hypertension. The leaves and roots of the plant were used as an edible vegetable, eaten raw or cooked in some countries. A tea made from the whole plant was used as antiscorbutic, astringent, diuretic, emmenagogue, haemostatic, hypotensive, oxytocic, stimulant, vasoconstrictor and vulnerary. A tea made from the dried herb was considered to be a sovereign remedy against haemorrhages of all kinds, the stomach, the lungs, the uterus and more especially the kidneys. The plant has been ranked 7th amongst 250 potential anti-fertility plants in China. A homeopathic remedy is made from the fresh plant to be used in the treatment of nose bleeds and urinary calculus.

**Capsicum annuum**

Capsicum is a tropical and an important agricultural crop and one of the popular vegetables, not only because of its economic value, but also for the combination of color, taste and nutritional values of its fruit. The interest in the consumption of capsicum is, to a large extent due to its content of bioactive compounds and their importance as dietary antioxidants. Peppers were used fresh, dried, fermented, or as an oleoresin extract. It has both nutritional and nutracetical importance. Capsicum was used as a colourant, flavourant, and/or as a source of pungency. The main source of pungency in peppers is the chemical group of alkaloid compounds called capsaicinoids (CAPS), which are produced in the fruit. Capsaicin (C18H27NO3), trans-8-methyl-N-vanillyl-6-nonenamide), is the most abundant CAPS, followed by dihydrocapsaicin, with minor amounts of nordihydrocapsaicin, homocapsaicin, homodihydrocapsaicin, and others. Capsaicin is a white crystalline, fat-soluble compound formed from homovanillic acid that is insoluble in water, odourless, and tasteless. The red colour of mature pepper fruits is due to several related carotenoid pigments, including capsanthin, capsorubin, cryptoxanthin, and zeaxanthin, which are present as fatty acid esters. The most important pigments are capsanthin and its isomer capsorubin, which make up to 30–60% and 6–18% respectively, of the total carotenoids in the fruit. It is also important for its flavor in many products in addition to its color. Dried chilli is also valued for its contribution to flavor in chilli sauces and chilli powders. The flavoring principle is associated with volatile aromatic compounds and color. As a general rule, when the color of paprika or chilli powder fades, the flavor also disappears. Both volatile and non-volatile substances contribute to its use as flavoring agent.

**Capsicum frutescens**

*Capsicum frutescens* was also used traditionally as an external therapy in painful muscle spasms in areas of shoulder, arm and spine; for treating arthritis, neuralgia, lumbago and chillblains. In addition, it also used for the treatment of diabetes, blood pressure [high/ low], bronchitis, burning feet,
Traditional uses of Iraqi medicinal plants

**Carthamus tinctorius**

Traditionally this crop was grown for its flowers for colouring and flavouring foods. Flowers contain the water soluble yellow dye carthamidin \( \text{C}_{16}\text{H}_{20}\text{O}_{11} \) and a water insoluble red dye carthamin \( \text{C}_{21}\text{H}_{22}\text{OH}\cdot\text{H}_{2}\text{O} \). These have been the source of yellow and red dye in the food and industries to colour cotton and silk. Recently, these yellow and red pigments have been shown to be safe for cosmetic colourings such as face cream, shampoo, perfume or body lotion and hair cream. In Chinese medicine, flower petals have been used as a stimulant for blood circulation and phlegm, healing of fractures, contusions and strain and for various female maladies. It was used for the problem in menstruation to increase blood flow and, mixture of ground safflower seed and mustard oil has been used to reduce rheumatic pain. The florets of *Carthamus tinctorius* have been used as a remedy for stroke, gynecological disease, coronary heart disease, angina pectoris, and hypertension in Chinese folk medicine. In Korea, the safflower seed extracts have traditionally been used for the treatment of blood stasis, the promotion of bone formation and the prevention of osteoporosis. In India and Afghanistan the tea made from safflower foliage was used to prevent the abortion in women. Male sterility and dead sperm diseases have also been treated with using safflower dicotyledons. It was widely used as a traditional Thai herbal remedy for blood, heart and nerves tonics, blood detoxifier, lymph stimulator, menstruation enhancer, to relief menstruation pain, to control blood pressure and for various types of dyslipidemic syndromes. Oil is used by both food producers and industry. However, Safflower is currently grown mostly for its edible oil, considered as a favourable oil for human consumption due to high quantity (70-75%) of polyunsaturated (linoleic acid) or mono-unsaturated fatty acid (oleic acid), which play an important role in reducing cholesterol level in blood. In the United States, there are three major uses for safflower: oil, meal, and birdseed. The crop is divided into two categories based on oil quality: (1) high linoleic (a polyunsaturated fatty acid) acid varieties, these contain 75 percent linoleic acid, and (2) high oleic (a monounsaturated fatty acid) acid varieties.

**Carum carvi**

Caraway was used for gastrointestinal cramps and feelings of fullness, as well as nervous cardiac-gastric complaints, in spasmody gastrointestinal complaints, flatulence, irritable stomach, indigestion, lack of appetite, dyspepsia in adults, and in relieving flatulent colic of infants. It was also used as tranquilizer, diuretic, emenagogue, and gastric stimulant, aphrodisiac, astringent, in the treatment of morning sickness, headache, to improve liver function, in bronchopulmonary disorders, cough and as an analgesic. Vapor of caraway seeds is used to relief lumbago and rheumatism. The seeds were also used for the treatment of scabies. Caraway was also used to improve lactation in nursing mothers. The essential oil is used as constituent in mouthwashes and bath additives, and in perfumery, for scenting soap and as a parasiticide. It was commonly used as a flavorant in ice cream, candy, meat, cheese, condiments, soft drinks, and alcoholic beverages.

**Cassia occidentalis**

Leaves were used externally and internally in skin diseases,
Itches, scabies and ringworm. Hot decoction preferred to quinine for its tonic properties. Paste of leaves and calcium hydroxide applied to abscesses for quick opening and clearing of pus. The paste of leaves was externally applied to wounds, sores, itch, cutaneous diseases, bone fracture, fever, ringworm, skin diseases, throat infection and to cure sore eyes. It was also used in hematuria, in rheumatism, for typhoid fever and tuberculosis, asthma, haemoglobin disorders, to cure leprosy and to treat diabetes. The leaves/roots were an ingredient of many popular herbal liver tonics and medicines for liver disorders. People use it also for the treatment of insect bites, snakebite, scorpion sting, constipation, oedema, fever, inflammation and rheumatism. Its roots, leaves, flowers and seeds were used as laxative and purgative. The plant was also used as febrifuge, vermifuge, anticonvulsant and against chicken pox, guinea worm and black quarter. It was said that the infusion of the leaves of *C. occidentalis* is used as an effective treatment for hepatitis. In Unani medicine it was used as an antidote of poisons, blood purifier, expectorant, anti-inflammatory agent and a remedy for the treatment of liver diseases. In India it was used for haematuria, rheumatism, typhoid, asthma and disorders of haemoglobin.

<table>
<thead>
<tr>
<th><strong>Casuarina equisetifolia</strong></th>
<th>It was used for the treatment of constipation, cough, diabetes, diarrhea, dysentery, gonorrhea, nervous disorders, acne, throat infections and stomach ulcer. However, bark was used as an astringent and used in stomachache, diarrhea, dysentery and nervous disorders. Leaf: was used as antispasmodic in colic. Aerial parts: was used as hypoglycaemic. Seeds were used as anthelmintic, antispasmodic and antidiabetic.</th>
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<tr>
<td><strong>Celosia cristata</strong></td>
<td>Seeds were used as demulcent; for painful micturition and for dysentery. Flowers were edible in India, they were also used medicinally in menorrhagia and as an astringent which are used to treat bloody stool, hemorrhoid bleeding and diarrhea; the seed decoction is used to treat dysentery. The flowers were also used as astringent, styptic, depurative, uterine sedative, constipating, antibacterial, and corrective of urinary pigments, febrifuge and alexeteric. They were useful in the conditions of kapha and pitta, leprosy, burning sensation, skin diseases, diarrhoea, dysentery, fever, headache, hemorrhoids, herpes, internal hemorrhage, leukorrhea, liver disorders, menorrhagia, ulcers, and wounds. Juice of leaves was used in bilious sickness. They were also valued as a stimulant in pregnancy. The seed was hypotensive and ophthalmic. It was used in the treatment of bloodshot eyes, blurring of vision, cataracts and hypertension. The flower and seed were astringent, haemostatic, parasiticide and poultice. They were used in the treatment of bloody stool, haemorrhoid bleeding, uterine bleeding, leucorrhoea and diarrhea. The plant was also used for the treatment of fatigue, atherosclerosis, leucorrhoea and osteoporosis. Its seeds have been used for removing-liver-heat improving eyesight, clearing wind- and as an anti-inflammatory agent.</td>
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<tr>
<td><strong>Centaurea cyanus</strong></td>
<td>Externally it was used as an anti-inflammatory and astringent herb for eye ailments and skin cleansing. An eye wash made with cornflower blossoms was used for conjunctivitis and blepharitis as well as to relieve strained, tired or puffy eyes. Blue blossoms infused in water have both curative and calming action for nervous disorders. Eye wash was reputed</td>
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</table>
to strengthen weak eyes. Traditionally it was said to work best on blue eyes. The dried flowers were antipruritic, antitussive, astringent, weakly diuretic, emmenagogue, ophthalmic, very mildly purgative, and tonic. An infusion can be used in the treatment of dropsy, constipation, or as a mouthwash for ulcers and bleeding gums. This infusion was also taken as a bitter tonic and stimulant, improving the digestion and possibly supporting the liver as well as improving resistance to infections. Water distilled from the marginal flowers was formerly in repute as a remedy for weak eyes and a soothing lotion for conjunctivitis. The seeds were used as a mild laxative for children. Cornflower leaves were used to create a cleansing facial steam for dry sensitive skin. A decoction of the leaves was antirheumatic.

| Ceratocephalus falcatus | Ceratocephalus falcatus has laxative properties and has been used for treating hemorrhoids, rheumatical diseases and wounds. It was also used as antirheumatic for knee and joints. | 292-294 |
| Ceratopteris thalictroides | The only record of Ceratopteris thalictroides being eaten in Africa is from Madagascar, where it is used in a similar way as watercress. It is commonly eaten throughout South-East Asia. In Malaysia and Japan it is an established luxury vegetable. The young leaves, before they have uncurled, make excellent greens and when cooked or blanched they can be eaten as a salad. Medicinally, this fern (both leaf and root) is used in Malaysia and the Philippines as a poultice against skin complaints, in China is used to stop bleeding. C. thalictroides leaves are used for skin complaints. It is used as drawing agent in treatment of carbuncles. In China, it is used to stop bleeding. In India, leaf powder along with turmeric is applied to unhealed wounds. Young fronds are eaten as vegetables. | 295-297 |
| Cheiranthus cheiri | From the time of the ancient Greek physician Galen (around 130-200 AD), medical practitioners have accepted the therapeutic attributes of wallflower. In those times, the doctors prescribed wallflower to ease pain during childbirth, stimulate menstruation, purify the kidneys and liver as well as resolve cataract problems. Nicholas Culpeper, the 17th century English herbalist, has also talked about the effectiveness of wallflower in treating palsy and apoplexy (an unexpected, typically noticeable loss of bodily function owing to rupture of a blood vessel). During the early part of the 20th century, pharmacologists had found that the seeds, leaves and flowers of wallflower enclose a substance, akin to digitalis, which works on the heart. For this particular reason, wallflower is not recommended for household use. However, the plant is used traditionally as a diuretic and emmenagogue. The flowers and stems are antirheumatic, antispasmodic, cardiotonic, emmenagogue, nervine, purgative and resolvent. They are used in the treatment of impotence and paralysis. The seeds are aphrodisiac, diuretic, expectorant, stomachic and tonic. They are used in the treatment of dry bronchitis, fevers and injuries to the eyes. It used with caution because large doses are toxic. Recent research has shown that it is more valuable for its effect on the heart. In small doses it is a cardiotonic. In more than small doses, however, it is toxic and so is seldom used in herbal medicine recently. | 298-300 |
| Chenopodium album | In India, the plant is used as a laxative, diuretic, sedative and the infusion of the plant is used for the treatment of rheumatism. It was also used as an antidiarrhoeal, antiphlogistic, antirheumatic, contraceptive, odontalgic, | 301-309 |
Traditional uses of Iraqi medicinal plants

- **Chrozophora tinctoria**: It is an old dye plant widely used in the Middle Ages in the illuminations. Turnsole also called (folium) pigment is more correctly a range of colours from blue through purple to red depending on the PH of the solution. It was considered as another kind of Litmus and sometimes was used for coloring Dutch cheese and certain liquors. Traditionally it is used for the treatment of warts.

- **Chrysanthemum cinerariaefolium**: The seeds were used traditionally as aphrodisiac, for bronchitis, catarrh, cholera, constipation, diarrhea, dyspepsia, flatulence, snakebite, sunstroke, and warts. Acids (malic and oxalic acids) are supposed to lower the blood cholesterol levels. In India these acids were harvested by spreading thin muslin over the crop during the night. In the morning the soaked cloth is wrung out, and the acids are collected and used as hypolipidemic. Seeds were also considered antibilious. **Cicer arietinum** which is generally consumed as a seed food is a good source of protein and traditionally used in pacifying the burning sensation in stomach, hepatomegali, stomatitis, inflammations, skin diseases and bronchitis. Chickpeas have also been widely used in traditional Uighur medicine to treat and prevent hypertension, hyperlipidemia, diabetes, itchy skin, flatulence, low libido, tumor formation and osteoporosis.

- **Cichorium intybus**: Historically, chicory was grown by the ancient Egyptians as a medicinal plant. The dried and roasted roots are used as coffee substitutes and additives, young leaves can be added to salads and vegetable dishes, while chicory extracts are used for the production of invigorating beverages. The plant was used traditionally for the treatment of diarrhea, to strengthen the prostate and other reproductive organs, for the treatment of pulmonary disease and cough, cancer, hangover, for purification of biliary tract, liver complaints, as spasmylytic, to relief of symptoms related to mild digestive disorders (such as feeling of abdominal fullness, flatulence, and slow digestion) and temporary loss of appetite. Among internally uses areIlt was also used in sore throat, hemorrhoids, tuberculosis, abdominal cramps, melancholy, deafness, rashes and as laxative for children.

- **Cistanche tubulosa**: **Cistanche tubulosa** (Schenk) R. Wight is commonly used by traditional Chinese physicians to treat forgetfulness, impotence and senile constipation. It was also used as tonic, for the treatment of blood circulation-related disorders, lumbago, impotence, sterility and body weakness.
### Traditional uses of Iraqi medicinal plants

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Uses</th>
<th>Page Numbers</th>
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<tbody>
<tr>
<td><em>Citrullus colocynthis</em></td>
<td>The root was used in inflammation of the breasts, joints pain; externally it was used in ophthalmia and in uterine pains. The fruit and root were rubbed with water and applied to boils and pimples. A paste of the root is applied to the enlarged abdomen of children. The fruit was also used in ascites, biliousness, jaundice, cerebral congestion, colic, constipation dropsy, fever, worms and sciatica. Root was also given in cases of abdominal enlargement, cough, asthma, inflammation of the breast, ulcers, urinary diseases and rheumatism. Oil from seeds is used for poisonous bites, bowel complaints, epilepsy and also for blackening the hair. <em>Citrullus colocynthis</em> fruits were also traditionally used as an abortifacient and to treat constipation, oedema, bacterial infections, cancer and diabetes.</td>
<td>329-332</td>
</tr>
<tr>
<td><em>Citrus aurantifolia</em></td>
<td><em>Citrus aurantifolia</em> was used traditionally as laxative, appetizer, stomachic, digestive, anthelmintic, dyspepsia, flatulence and helmenthiasis. <em>Citrus aurantifolia</em> was also used for cold fevers, sore throats, sinusitis and bronchitis, as well as helping asthma. Its oil is mainly used as antidepressant because it promoted refreshment to the tide mind. It can be helpful for rheumatism arthritis, obesity and has an astringent and toning action to clear oily skin and acne, in the treatment of herpes, cuts and insect bites.</td>
<td>333-334</td>
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<tr>
<td><em>Citrus limonum</em></td>
<td>Lemon juice is widely known as diuretic, antiscorbutic, astringent, and febrifuge. In Italy, the sweetened juice is given to relieve gingivitis, stomatitis, and inflammation of the tongue. Lemon juice in hot water has been widely advocated as a daily laxative and preventive of the common cold, but daily doses have been found to erode the enamel of the teeth. Prolonged use will reduce the teeth to the level of the gums. Lemon juice and honey, or lemon juice with salt or ginger, is taken as a cold remedy.</td>
<td>335-336</td>
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<tr>
<td><em>Citrus medica</em></td>
<td>In traditional medicine, ripe fruits were used in sore throat, cough, asthma, thirst, hiccough, earache, nausea, vomiting, anti scorbutic, stomachic, tonic, stimulant, expellant of poison, correct fetid breath; distilled water of the fruit was sedative, fruits and seeds were cardiac tonic and used in palpitation, fruit decoction is analgesic. Roots, flowers, seeds, peels and leaves were used in many ailments. The fruit wrapped in cloth was used to protect clothes from moths indicating its insect repellent activity. In ancient literature, citron was mentioned as an antidote for various kinds of poison.</td>
<td>337-339</td>
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<tr>
<td><em>Citrus medica var limetta</em></td>
<td><em>Citrus medica var limetta</em> fruit and leaves were used for healing of common cold, control of blood lipids, for the treatment of fever, regulation of inflammatory and digestive disorders and as a blood pressure modulator.</td>
<td>340-341</td>
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<tr>
<td><em>Citrus sinensis</em></td>
<td>Oranges were eaten to allay fever and catarrh. The roasted pulp was prepared as a poultice for skin diseases. An infusion of the immature fruit was taken to relieve stomach and intestinal complaints. The flowers were employed medicinally by the Chinese people living in Malaya. Orange flower water, made in Italy and France as antispasmodic and sedative. A decoction of the dried leaves and flowers was given in Italy as an antispasmodic, cardiac sedative, antiemetic, digestive and remedy for flatulence. The inner bark, macerated and infused in wine, was taken as a tonic and carminative. Decoction of husked orange seeds was prescribed for urinary ailments in China and the juice of fresh orange leaves or a decoction of</td>
<td>342-343</td>
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the dried leaves was taken as a carminative or emmenagogue or applied on sores and ulcers. An orange seed extract was given as a treatment for malaria in Ecuador but it was known to cause respiratory depression and a strong contraction of the spleen.

**Clerodendrum inerme**

*Clerodendron inerme* was used as a febrifugal and uterine stimulant, a pest control agent and antiseptic, to arrest bleeding, treatment of asthma, hepatitis, ringworm and stomach pains. The plant was also used in the treatment of scrofulous and venereal infections, and also as an antidote for poisoning from fish, crabs, and toadstools. The fresh leaf juice was used externally for treating skin diseases. The roots are boiled in oil and used in rheumatic affections.

**Clitoria ternatea**

Root was used for the treatment of ascetics, enlargement of the abdominal viscera, sore throat and skin diseases. They were also used as purgative, but because, they cause griping and tenderness, they were not recommended. Root was administered with honey and ghee as a general tonic to children for improving mental faculties, muscular strength and complexion tonics. Roots were also used in epilepsy and insanity. Seeds and leaves were widely used as a brain tonic and to promote memory and intelligence. Juice and flowers were used as an antidote for snake bite. Seeds were used in swollen joints, crushed seeds are taken with cold or boiled water for urinary problems.

**Cnicus Benedictus**

Blessed or holy thistle (leaves, stems, and flowers has been used to stimulate appetite, enhance bile secretion, strengthen the liver, diminish jaundice, decrease flatulence, and aid digestion. It was used for this purpose in both European traditional herbalism and in the Ayurvedic medicine system of India over the generations. It was also used to support and regulate the female reproductive system due to its emmenagogue action. It was also used as galactagogue in nursing mothers to increase and enrich milk flow. Blessed thistle leaves, stems, and flowers have traditionally been used in “bitter” tonic drinks and in other preparations taken by mouth to enhance appetite and digestion. It was also historically used as a diuretic, diaphoretic, emmenagogue, contraceptive, and antipyretic, as a cure for the plague and malaria, and as a general tonic. Nowadays, it was mainly used as a bitter tonic to treat dyspepsia, flatulence and indigestion; some herbalists also recommend it as an astringent (to treat diarrhea or hemorrhage), vulnerary, galactagogue, and remedy for dysmenorrheal. Homeopaths use the plant for nausea, left-sided stomach pain, gallstones, homesickness, intermittent fever, and enlarged liver, especially when eye symptoms are present and there is a sensation of contraction in many parts.

**Colchicum candidum**

In the 1st century AD Pedanius Dioscorides wrote (De Materia Medica) and stated that more than 3000 years ago Greek physicians used the plant from which colchicine is derived as a therapeutic agent for gout. Middle age Arabic physicians also used the Colchicum to treat acute flares of gout. In India and Africa various preparations of colchicum are still used traditionally for gastroenterological, musculoskeletal and cutaneous diseases.

**Conium maculatum**

The Ancients were familiar with the plant, which was mentioned in early Greek literature, and fully recognized its poisonous nature. The juice of hemlock was frequently
administered to criminals. The generic name being derived from the Greek word Konas, meaning to whirl about, because the plant, when eaten, causes vertigo and death. The specific name is the Latin word, meaning (spotted), and refered to the stem-markings. The name Hemlock is derived from the Anglo-Saxon words hem (border, shore) and leác (leek or plant). Other authors mentioned that the name (hemlock) was derived from the Anglo-Saxon word healm (straw), from which the word (haulm) was derived. The ancients employed several methods to relieve surgical pain. The less violent form of sedation, was the use of ancient narcotics. Four plants were used for analgesic and anesthetic effects: opium poppy (*Papaver somniferum*), datura (*Datura stramonium*), hemlock (*Conium maculatum*), and withania (*Withania somniferum*). These plants were employed not only as narcotics but also as anodynes, administered in decoctions, poultices, suppostories, lozenges, pills and topical applications. The extracts from the poppy, as well as decoctions from datura, henbane, hemlock and mandrake were used (either alone or in combinations) to dull the pain of surgery in ancient times. Greek and Arabian physicians were use it to cure indolent tumors, to relieve swellings and pains of the joints as well as for affection of the skin. *Conium maculatum* Linn. (Umbelliferae) has been traditionally used in the treatment of spasmodic disorders, and to relieve nervous excitation, rheumatic pains, pain in stomach, pain of gastric ulcer, nervousness and restlessness.

| **Convolvulus arvensis** | The plant was reported to have used in traditional medicine system from as early as 1730s. Aerial parts of *Convolvulus arvensis* was used as laxative, wound healing, anti-spasmodic, anti-haemorrhagic, anti-angiogenetic and for the treatment of parasites and jaundice. In addition it was used as diuretic and in skin disorders such as anti-furunculosis, antidandruff and in spider bites(11). *Convolvulus arvensis* was also used traditionally as decoction in cough and flu, to treat the painful joints, inflammation and swelling. | 369-374 |
| **Convolvulus scammonia** | A drink was prepared by mixing scammony and sugar in some water. This remedy was used as purgative and to expell all depositions and poisons. Repeating the therapy after one month was used to keep off fevers, shivers and quartan fevers (malaria) for the rest of the year. However, although Dioscorides was well acquainted with the purgative effects of scammony and Paulus Aegineta applied the drug in numerous simple and compound remedies for this purpose, neither of them mentioned fever or malaria. Unlike these two, the physician Alexander of Tralles from Lydia in Asia Minor, in the 6th century, highlighted the usefulness of scammony in quartan and other fevers. | 375-376 |
| **Corchorus aestuans** | *Corchorus aestuans* was used as a cheaply available fiber plant (known as jute), but the product was coarser and less durable than that made from *Corchorus capsularis* L. (white jute). The leaves were widely eaten as a vegetable. In northern Benin, for instance, it was consumed as leafy vegetable in a mucilaginous sauce, and its cultivation in the rainy season for household consumption has been recorded in south-western Benin. In north-eastern India the root was cooked as a vegetable. The foliage was browsed by all livestock. In traditional African medicine, extracts of the roots or leaves were taken for the treatment of gonorrhoea, and an extract of the whole plant, including the roots, was | 377-378 |
Traditional uses of Iraqi medicinal plants

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Traditional Uses</th>
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<tbody>
<tr>
<td><strong>Corchorus capsularis</strong></td>
<td>Jute was known as the golden fiber. It was the most important cash crop. Jute fiber was produced mainly from two important species: White Jute (<em>Corchorus capsularis</em>), and Tossa Jute (<em>Corchorus olitorius</em>). Jute was used as packaging materials like gunny bag, twill, carpet backing, wool pack, twine, hessian, mats, canvas, rug, handicrafts, wall cover, and furnishing fabrics of different types and natures. Now a day, it has been used as a popular raw material for packaging. Highly absorptive fiber made from jute was used for surgical dressings. Before being used as a commercial commodity it was used in different parts of the world to make household and farm implements such as ropes, handmade clothes, wall hangings, etc. Paper also made from Jute. Leaves were also used medicinally as demulcent, bitter tonic, stomachic, laxative, carminative anthelmintic, astringent and intestinal antiseptic. Infusion of dried leaf was bitter and commonly used as a stomachic tonic, also used in fever, bilious trouble dysentery, liver disorders, intestinal colic, gastric catarrh, skin diseases, atonic dyspepsia, mild jaundice and other disorders of digestive system. For the treatment of dysentery, dried leaves are eaten with rice. It was also used as a paste over swellings and abscesses. In India, leaves were used in stomachic, as carminative, diuretic and for the treatment of dysentery (dried leaves), while, seeds were used as purgative. Ayurvedics used the leaves for ascites, pain, piles, and tumors. The leaves also were used for cystitis, dysuria, fever, and gonorrhea. The cold infusion was said to restore the appetite and strength. The aqueous/alcoholic extracts (containing polysaccharides and oligosaccaride), were used in preparations of skin cosmetics or hair preparations for their moisturizing effect.</td>
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<tr>
<td><strong>Cordia myxa</strong></td>
<td>It was eaten to suppress cough and for the treatment of respiratory infections and a sore throat, as it has demulcent properties. The pulp was also applied as an emollient to mature abscesses, to calm rheumatic pain and as an anthelmintic. In Tanzania the fruit pulp is applied on ringworm. In Mali and Côte d’Ivoire the leaves were applied to wounds and ulcers. A macerate of the leaves was taken to treat trypanosomiasis, and is externally applied as a lotion to tse-tse fly bites. In the Comoros the powdered bark is applied to the skin in cases of broken bones before a plaster was applied, to improve healing. Bark powder was used externally in the treatment of skin diseases. Bark juice together with coconut oil was taken to treat colic.</td>
</tr>
<tr>
<td><strong>Coriandrum sativum</strong></td>
<td>The use of coriander dated back to around 1550 BC, and it was one of the oldest spice crops in the world. Medicinally, it was used as stimulant, aromatic and carminative. The powdered fruit, fluid extract and oil are chiefly used medicinally as flavouring to disguise the taste of active purgatives and correct their griping tendencies. The whole or</td>
</tr>
</tbody>
</table>
ground seed (fruit) was an ingredient of pickling spices, also used to flavor various commercial foods, particularly, to prepare some instant soups and dishes, in many cakes, breads and other pastries, alcoholic beverages, frozen dairy desserts, candy, and puddings. The fruit essential oil was a common ingredient in creams, detergents, surfactants, emulsifiers, lotions, and perfumes. However, seeds were applied locally to alleviate swelling and pains. Paste of green coriander were used for headache. Externally, powdered green coriander was used to alleviate burning sensation and pain in diseases like inflammation caused by erysipelas and lymphadenopathy. Decoction of green coriander was used in stomatitis. Nasal drops of green coriander act as a haemostat and thus stop bleeding in epistaxis. Juice or decoction of green coriander was used in conjunctivitis. The seeds were included in many prescriptions as carminative and for the treatment of fever, diarrhoea, vomiting and indigestion. Coriander was used internally as a tonic. It was also used for syncope and memory loss. Fresh juice of leaves was used as gargle in sore throat and stomatitis. Paste of leaves were locally applied for swellings and boils and were applied over forehead and temples for headache.

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Usage</th>
<th>References</th>
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<tbody>
<tr>
<td>Coronilla scorpioides</td>
<td>It was used as stimulant and applied externally to bites of venomous animals.</td>
<td>393-397</td>
</tr>
<tr>
<td>Coronilla varia</td>
<td>It was used traditionally as cardio-tonic, diuretic and in prostate diseases. However, it should be used with extreme caution because of toxicity. A decoction of the bark has been used as an emetic. The crushed plant has been rubbed on rheumatic joints and cramps.</td>
<td>398-400</td>
</tr>
<tr>
<td>Cotoneaster racemiflorus</td>
<td>The plant was used traditionally as aperient, expectorant and stomachic. Using of extracts in breast-fed babies for reducing jaundice was popular in Iranian culture.</td>
<td>401-402</td>
</tr>
<tr>
<td>Cressa cretica</td>
<td>The plant was used traditionally as anthelmintic, stomachic, tonic, aphrodisiac, for constipation, leprosy, asthma and urinary discharges. In Senegal a maceration of the whole plant (together with the barks of Vitex cuneata Thonn and Faidherbia albida (Delile) A.Chev) was drunk against bronchitis. In Sudan a maceration of the aerial parts was drunk as a tonic. A decoction of the stems (together with leaves of Vitex doniana Sweet) was applied topically against skin eruptions as in smallpox. In Sudan crushed dry leaves with sugar were taken as an emetic.</td>
<td>403-406</td>
</tr>
<tr>
<td>Crocus sativus</td>
<td>Saffron has long been used as both spice and medicine by a number of cultures. It was mentioned that saffron stigma was used as a medicine over 3,600 years ago. In the Middle East, saffron was considered as carminative, antispasmodic, thymoleptic, cognition enhancer, aphrodisiac, and emmenagogue. In traditional Chinese medicine, it was used in menorrhagia, amenorrhea, high-risk deliveries and postpartum lochiotasis. In India, Saffron was used for bronchitis, sore throat, headache, vomiting and feve.</td>
<td>407-409</td>
</tr>
<tr>
<td>Crotalaria juncea</td>
<td>The major significance of Crotalaria juncea lies in its valuable bast fibre, which makes up about 8% of the dry stem weight. The fibre of commerce consists of greyish to pale yellow strands 75–150 cm long. Fibres are entangled in a mesh structure, and single filaments are obtained by combing.</td>
<td>410-411</td>
</tr>
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Cuminum cyminum

In traditional medicine, cumin was used to treat hoarseness, jaundice, dyspepsia and diarrhoea. Its seeds were used for stomachic, diuretic, carminative, stimulant, astringent and abortifacient properties. The oil of cumin was used in perfumery and as a seasoning in curry powders, soups, stews, sausages, cheeses, pickles, meats and chutneys. In America, Africa and India the drug is used as an abortive and as an emmenagogue. In Indonesia, it was used in cases of bloody diarrhea and headache (paste is applied to the forehead). It was also taken orally for rheumatic ailments. In India, cumin was used as an abortifacient, for kidney and bladder stones, chronic diarrhea, leprosy and eye disease. In Unani system of medicine, the fruits of Cuminum cyminum were used as an astringent, carminative, emmenagogue, for the treatment of corneal opacities, ulcers, boils, styes and to relieve cough and inflammation.

Cupressus sempervirens

The drug was used externally for head colds, coughs and bronchitis. A decoction of the cones and leaves of Cupressus sempervirens was used in a sitz bath three times a day for one week for haemorrhoids. The cones and leaves were used internally as an astringent. Externally, the extract of the cypress was incorporated in preparations (ointments and suppositories) and used to treat haemorrhoids, varicose veins and venous circulation disorders. The essential oil was used as antiseptic and an antispasmodic for stubborn coughs. Cypress was also described as deodorant, and diuretic, to promote venous circulation to the kidneys and bladder area, and to improve bladder tone and as a co-adjuvant in therapy of urinary incontinence and enuresis.

Cuscuta planiflora

In traditional Chinese and Japanese medicine, the seeds of the dodder are often harvested and ground into a fine powder, which was then made into tablets or encapsulated and taken to treat osteoporosis, osteoarthritis, general muscular pains. It has even been given as a substitute for calcium supplements in individuals who suffer from low bone density, along with a prescribed dietary regimen for several months up to several years, with extreme attention paid to the dosage, as the seeds of dodder, if consumed in very large quantities, can be hepatotoxic. Dodder was employed in Ayurveda as a remedy for jaundice, as a mild laxative and a moderately potent analgesic. When steeped in jaggery or honey, it was also given as a remedy for cough, boils (applied topically), and as a daily tonifying medicine, to boost the overall immune system if consumed moderately.
| **Cydonia oblonga** | Traditionally, the leaves were used as astringent and antiseptic. Fruits were used as astringent, antiseptic, hepatoprotective, cicatrising, anti-inflammatory; for treatment of diarrhoea, dysentery, hepatic disorders, leucorrhoea, haemoptysis, uterine haemorrhages, and wounds. The seeds of *Cydonia oblonga* were used traditionally as astringent, emollient and for the treatment of diarrhea, dysentery, cough, sore throat, bronchitis, intestinal colic and constipation. | 423-426 |
| **Cymbopagon schoenanthus** | *Cymbopogon schoenanthus* was an aromatic herb consumed in salads and used to prepare traditional meat recipes. The plant was used in traditional medicine as anthelminthes, antidiarrhea, antirheumatic, carminative, diaphoretic, stomachic, diuretic, emmenagogue, antipyretic, for treatment of jaundice and as a tonic. It was also used for anorexia; astringent, sudorific and to cure dromedary wounds. In Morocco and Egypt an infusion of the flowers and the whole plant were used as febrifugal, diuretic, antirheumatismal and antiastagaligic. The plant was used in Sudan for the treatment of gout, prostate inflammation, kidney diseases, and for stomach pains. | 427-430 |
| **Cynodon dactylon** | Traditionally, the plant was used for the treatment of diarrhea, dysentery, wounds, hemorrhages and hyperdypsia. Fresh juice of plant was used as demulcent, astringent and in the treatment of dropsy, anasarca, catarrhal ophthalmia, secondary syphilis, chronic diarrhea and dysentery. The fresh expressed juice of the grass was used in hematuresis, vomiting and as application in catarrhal ophthalmia, and also can be applied to cuts and wounds, and in chronic diarrhea and dysentery. Decoctions of root were used in vesical calculus and secondary syphilis, stoppage of bleeding from piles, and irritation of urinary organs. | 431-434 |
| **Cyperus rotundus** | *Cyperus rotundus* was used for gastrointestinal spasms, stomach disorders, nausea, vomiting, intestinal parasites, food poisoning, indigestion and irritation of bowel. It was also used for treating fevers, to treat wounds, bruises and carbuncles, malaria, cough, bronchitis, renal and vesical calculi, urinary tenesmus, amenorrhoea, dysmenorrhoea, deficient lactation, loss of memory, insect bites, dysuria, bronchitis, infertility, cervical cancer and menstrual disorders, while, the aromatic oils are made of perfumes and splash. According to the Ayurveda, *Cyperus rotundus* rhizomes were considered astringent, diaphoretic, diuretic, analgesic, antispasmodic, aromatic, carminative, antitusive, emmenagogue, litholytic, sedative, stimulant, stomachic, vermifuge, tonic and antibacterial. | 435-439 |
| **Dactyloctenium aegyptium** | This plant was widely used as forage and is relished by all types of ruminants. It was considered as astringent, cooling, constipating, and diuretic. It was used traditionally bitter tonic, anti-annelmimtic, to treat gastrointestinal, biliary and urinary ailments, for the treatment of cough, polyurea, fevers, smallpox, heart burn, immunodeficiency, urinary lithiasis, spasm of maternity, renal infections, gastric ulcers and for wounds healing. Plant juice was used for fevers, used externally for wounds and ulcers dysentery and acute hemoptysis. | 440-444 |
| **Dalbergia sissoo** | *Dalbergia sissoo* is broadly used in folk medicine for several diseases. The concentrated extract of heartwood in milk was prescribed in fevers, bark extract was used as anti-inflammatory in piles, sciatica, and as blood purifier. The oil | 445-450 |
Traditional uses of Iraqi medicinal plants

**Daphne mucronata**

Treatment of various diseases including cleaning eyes and for eye pain. Its liniment was used for treating infectious wounds. It also used for muscular pain relieving, weary muscles by direct exposure to the smoke of branches or steam of its water extract. Its decoction and cooked leaves were employed for curing women infertility, gynecological infections, menstruation disorders and constipation.

**Datisca cannabina**

The leaves and flowering stems were bitter, diuretic, febrifuge and purgative. The root was used as a sedative in the treatment of rheumatism. It was also applied to carious teeth, as expectorant, for fevers, gastric and scrofulous ailments. The plant juice was given in fever and headache. Root was used as diuretic and for breaking of renal calculus. Hemp has been used to dye silk, wool and cotton in combination with an alum mordant. It produced a beautiful golden yellow with good fastness to washing but was not so fast to light.

**Datura fastuosa** (syn: *Datura metel*)

The dried leaves, flowers and roots were used as narcotic, antispasmodic, antitussive, bronchodilator, anti-asthmatic and as hallucinogenic. The plant was also used in diarrhea, skin diseases, epilepsy, hysteria, rheumatic pains, hemorrhoids, painful menstruation, skin ulcers, wounds and burns. In ayurveda, the plant was considered bitter, acid, astringent, germicide, anodyne, antiseptic, antiphlogistic, narcotic and sedative.

**Datura stramonium**

*Datura stramonium* has long been known for its hallucinogenic and euphoric effects. The weed was dried and smoked for hallucinations and total relaxation. *Datura stramonium* was used traditionally to treat asthma, gastrointestinal problems, aches, abscesses, arthritis, boils, headaches, hemorrhoids, rattlesnake bites, sprains, swellings, and tumors. It was used for relieving the pains of rheumatism and sciatica as an ointment, and easing spasms of Parkinsons disease. The juice of the leaves is in warm milk was used to expel intestinal worms including cestodes, seeds with palm oils used externally for insect bites and stings, in Nigeria. In Ayurvedic medicine, the plant was used for the treatment of ulcers, wounds, inflammation, sciatica, bruises and swellings, rheumatism, gout, asthma bronchitis and toothache.

**Daucus carota**

*Daucus carota* was cultivated for the enlarged fleshy taproot, eaten as a raw vegetable or cooked in many dishes. Eaten sliced, diced, cut up, or shoe-stringed, carrots were used in many mixed vegetable combinations. They were sold in bunches, or canned, frozen, or dehydrated. They may be baked, sauteed, pickled, and glazed, or served in combination with meats, in stews, roasts, soups, meat loaf or curries. Roasted carrot was used as coffee substitutes. Essential oil was used to flavor liqueurs and perfumes. Seeds were aromatic, carminative, diuretic, emmenagogue, stimulant, and were used for dropsy, chronic dysentery, kidney ailments, worms, as aphrodisiac, nerve tonic, and for uterine pain. Roots were refrigerant and used in infusion for threadworm, as diuretic and eliminating uric acid. The ethnobotanical uses
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<td><em>Daucus carota</em></td>
<td>Used by the Ancient Egyptians as a stimulant, carminative, diuretic, anthelmintic and as a decoction for infantile diarrhea.</td>
<td>466-467</td>
</tr>
<tr>
<td><em>Delphinium ajacis</em></td>
<td>Poisonous; flowers were considered acrid, bitter and astringent; seeds are cathartic, anthelmintic, emetic and insecticidal. Aerial parts were used as oral infusion for pneumonia, headache and stomachache in Skardu Valley.</td>
<td>468-471</td>
</tr>
<tr>
<td><em>Delphinium brunonianum</em></td>
<td>Whole plant was used topically, but not on abraded skin. The plant was used as parasiticide, a tincture was used to destroy lice in hair.</td>
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<tr>
<td><em>Desmostachya bipinnata</em></td>
<td>Used in perfumery, 500kg of flowers produce 100g of oil. Used traditionally in the treatment of throat and gum infections, as a cardiotonic, diaphoretic, alesteric, vermifuge and for the treatment of gastro-intestinal disorder.</td>
<td>472-475</td>
</tr>
<tr>
<td><em>Dianthus caryophyllus</em></td>
<td>Used traditionally as medicine and spices. It killed a toothache, applied as an antiseptic, at difficulty of breath and eye diseases. Essential oil of a carnation was applied to improve memory and restoring forces.</td>
<td>476-480</td>
</tr>
<tr>
<td><em>Digitalis lanata</em> and <em>Digitalis purpurea</em></td>
<td>Earlier, the herbs were used to treat ulcers, boils, abscesses, headaches and paralysis. Externally, digitalis species were used for the granulation of poorly healing wounds and to cure ulcers. After William Withering work, the digoxin is isolated from digitalis species as life-saving cardiac drug.</td>
<td>481</td>
</tr>
<tr>
<td><em>Dodonaea viscosa</em></td>
<td>Used in the treatment of rheumatism, skin infections, diarrhoeas, stomachaches, pains of hepatic or splenic origin, uterine colic and other disorders involving smooth muscles, antipruritic in skin rashes, dermatitis, hemorrhoids and sore throat.</td>
<td>482-486</td>
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</table>

of this species also included applications in the treatment of cough, diarrhea, dysentery, cancer, malaria, tumors, as an antiseptic, abortifacient, aphrodisiac, carminative, stimulant, stomachic and tonic. *Daucus carota* was used by the Ancient Egyptians as a stimulant, carminative, diuretic, anthelmintic and as a decoction for infantile diarrhea.
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<th>Plant Name</th>
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<th>Pharmacological Properties</th>
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<tr>
<td>Dolichos lablab (Syn: Lablab purpureus)</td>
<td>The plant was used as decoction in alcoholic intoxication, for the treatment of cholera, diarrhoea, globefish poisoning, gonorrhoea, leucorrhoea and nausea. Seeds were used to stimulate stomach, as antidote for poisoning, for menopause and spasms, and for the treatment of cholera, diarrhoea, colic, rheumatism and sunstroke. The juice from the fruit pods was used as astringent, digestive, stomachic, to expel worms and for the treatment of inflamed ears and throats. The flowers were used to treat inflammation of uterus and to increase menstrual flow.</td>
<td>487-489</td>
</tr>
<tr>
<td>Echinochloa crus-galli</td>
<td>Seed can be cooked whole or ground into a flour and used in porridges, macaroni, dumplings etc. The seed characterized by somewhat bitter flavor. It was used traditionally as preventative and tonic, for carbuncles, hemorrhage, sores, spleen trouble, cancer and wounds.</td>
<td>490-492</td>
</tr>
<tr>
<td>Echium italicum</td>
<td>In Turkey, the aerial parts of Echium italicum were used traditionally for wound healing, as diaphoretic, emollient and diuretic, while, the roots of the plant were used for wound healing, ulcer, rheumatic pain, blister and to treat bruises. In Italy, the decoction of aerial parts of Echium italicum were used as depurative, diaphoretic, diuretic and as emollient for healing respiratory infections.</td>
<td>493-496</td>
</tr>
<tr>
<td>Ephedra alata and Ephedra foliata</td>
<td>The Chinese dispensatory written in 1569 mentions that Ephedra species were valuable as an antipyretic, diaphoretic, circulatory stimulant, and sedative for cough. However, Ephedra has been used in traditional Chinese medicine to treat allergies, asthma, lung congestion, chills, colds, hay fever, coughs, edema, fever, flu, headaches, and nasal congestion. The plant was also traditionally used in Russia for respiratory disorders and rheumatism for many centuries. The Native Americans and Spaniards of the southwestern United States used ephedra for various medicinal purposes, especially venereal diseases. An active principle was first isolated by Yamanashi in 1885. In 1887, Nagai obtained the alkaloid in pure form and named it ephedrine. Pharmacological investigation indicated that the drug was toxic, mydriatic and sympathomimetic.</td>
<td>497-500</td>
</tr>
<tr>
<td>Equisetum arvense</td>
<td>Equisetum arvense was used traditionally for tuberculosis, as a catarrh in the kidney and bladder regions, as a hematostatic for profuse menstruation, nasal, pulmonary and gastric hemorrhages, for brittle fingernails and loss of hair, for rheumatic diseases, gout, poorly healing wounds and ulcers, swelling and fractures and for frostbite.</td>
<td>501-502</td>
</tr>
<tr>
<td>Erigeron canadensis (Syn: Conyza canadensis)</td>
<td>The plant was used for the treatment of wounds, swellings, and pain caused by arthritis in Chinese folk medicine. Zuni people insert the crushed flower of Conyza canadensis variety into the nostrils to crush sneezing and relieving rhinitis.</td>
<td>503-505</td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td>The whole plant was used as astringent and haemostatic in uterine and other bleeding and as abortifacient. Extracts of the plant were also used in traditional medicine as antidiarrheic, diuretic, stomachic and antihemorrhagic drugs. The root and leaves were eaten by nursing mothers to increase the flow of milk. Externally, the plant has been used as a wash on animal bites and skin infections. A poultice of the chewed root was applied to sores and rashes. A tea made from the leaves was used as diaphoretic and diuretic. An infusion was used in the treatment of typhoid fever. The leaves were soaked in bath</td>
<td>506-510</td>
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<tr>
<th>Plant Name</th>
<th>Description</th>
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<tr>
<td>Eryngium creticum</td>
<td>It was cultivated for the consumption as a leafy vegetable in salads. It was used medicinally as a diuretic and laxative. Roots and seeds were immersed in water and drunk by people to treat kidney stones, infections, skin diseases, and tumors as an antidiote for the treatment of the snakebite. It was also used for the treatment of liver diseases, poisoning, anemia and infertility.</td>
<td>511-513</td>
</tr>
<tr>
<td>Erysimum repandum</td>
<td>The plant was used in Spain as an antiscorbutic. The seeds were used in the treatment of fevers. In Iraq, the seeds were used in fever, scurvy and to relieve pain in stomach and as an antiscorbutic. In Iran, smoke of burning fruits was considered to be beneficial for eye ailments.</td>
<td>514-515</td>
</tr>
<tr>
<td>Eschscholzia californica</td>
<td>It was used as sedative, analgesic and antispasmodic. It is traditionally indicated for treating the various physical and psychological conditions including insomnia, bedwetting (incontinence), anxiety and nervous tension, particularly in children. Indians on the western coast used this herb as a general pain killer, and Indian women would add it to the food of their (unreactive) mates if pregnancy was desired. Native American used the California Poppy in tea to treat headaches, anxiety, insomnia, as a topical analgesic and to relieve tooth pain. While Native American Indians would cut the root and apply the juice of the Poppy’s root to the source of their tooth pain. The plant was also used as a remedy in cases of fever, rapid pulse and spasmodic cough.</td>
<td>516-519</td>
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<tr>
<td>Eucalyptus species</td>
<td>The oil was used traditionally for the treatment of cystitis, diabetes, gastritis, kidney disease, laryngitis, leukorrhoea, malaria, pimples, ringworm, wounds, ulcers of the skin, urethritis and vaginitis. It was also used as an expectorant for symptomatic treatment of mild inflammation of the respiratory tract, bronchitis, asthma, and inflammation of the throat. In south Europe, oil was used for fever, neuralgic pain, asthma, lung tuberculosis and as an antiseptic agent. It is used externally for wounds, acne, poorly healed ulcers, stomatitis, bleeding gums, rheumatism and neuralgia. However, there were three broad categories of uses for Eucalyptus oil (medicinal, industrial and perfume/flavouring).</td>
<td>520-525</td>
</tr>
<tr>
<td>Eupatorium cannabinum</td>
<td>It was used in different religious and socio-cultural activities including the ritual purification functions of dead. It was used in folk medicine of Taiwan for treatment of hepatitis, headache, diarrhea, hypertension, and diabetes mellitus. Moreover, the plant had several ethno-medicinal applications. An infusion (100 ml) prepared from the tender leaves was given orally to women once a day for five days in excess bleeding during menstruation period. Leaves and stems juice was applied to cuts and bruises to stop bleeding. It was also used as detoxifying herbs and for the treatment of fevers, cold, flu and viral conditions. Leaves and roots of Eupatorium cannabinum were also used a cholagogue, laxative, diuretic and hypocholesterolemic and for wound healing, diarrhea and livers diseases.</td>
<td>526-528</td>
</tr>
<tr>
<td>Euphorbia hirta (Syn: Euphorbia pilulifera)</td>
<td>Euphorbia hirta was used in the treatment of gastrointestinal disorders, bronchial and other respiratory diseases, conjunctivitis, to increase milk flow in lactating women and for other female diseases. It was also used for intestinal parasites, diarrhoea, peptic ulcers, heartburn, vomiting, amoebic dysentery, asthma, bronchitis, hay fever, laryngeal</td>
<td>529-532</td>
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<tr>
<td><strong>Euphorbia tinctoria</strong> (syn: Euphorbia macroclada)</td>
<td>The plant was used for the treatment of warts, constipation, eczema, arthritis, female sterility and colds. It was considered as purgative, antibacterial, antihelmintic, antiscorbutic, aphrodisiac, diuretic, rubefacient and stimulant. In Turkey, the plant was used traditionally as antipyretic, antihæmorrhoidal, for malaria, warts, snake and scorpion bites, analgesic in toothache, wound healing and fungal infection.</td>
<td></td>
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<tr>
<td><strong>Fagopyrum esculentum</strong></td>
<td>Buckwheat is consumed by humans and animals in different forms corresponding to different types of production: flour, whole seeds, sprouts, shoots and honey. Honey is a major by-product of buckwheat cultivation with a dark colour and strong taste. It is used to sweeten foods, chiefly pastries. One ha of buckwheat produced an average 125 kg honey and the best cultivars produce 150 to 300 kg/ha. Sprouts can be consumed in salads 2 days after germination, and young shoots can be eaten 10 days later. Young plantlets may still be harvested to make juice three weeks after germination. Leaves cooked in iron vessel were given to anemic patients. The cooked leaves were also used to cure constipation. The leaf of buckwheat was also used traditionally for choking, ulcer, haemostasis, for bathing wounds, to improve the functions of sight and hearing, and to keep adverse energy down. The plant was also used traditionally to treat hypertension, diabetes, peridontitis and gum bleeding.</td>
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<tr>
<td><strong>Ficus carica</strong></td>
<td><em>Ficus carica</em> was emollient, demulcent, cooling, laxative and nutritive. The edible fruits of <em>Ficus carica</em> were traditionally used for treatment of hemorrhoids, insect stings, gout, ulcers, and skin infections such as warts and viruses. Fruits were usually recommended for people suffering from constipation, nutrient for pregnant women and for mental and physical exhaustion. They were considered as antipyretic, tonic, purgative, alexiteric, aphrodisiac, lithotriptic, anti-inflammatory, expectorant, diuretic, and used for treatment of pharyngitis, gastritis, bronchitis, irritative cough, weakness, paralysis, thirst, diseases of the liver and spleen, pain in the chest, to cures piles, to stimulate growth of hair, and for leprosy and nose bleeding. The root was used as tonic, for leucoderma and ringworm.</td>
<td></td>
</tr>
<tr>
<td><strong>Ficus cunia</strong> (<em>Ficus semicordata</em>)</td>
<td>It was is commonly used as fodder for goats and cattle. The latex was used to cure boils. A bath made from the fruit and bark was used to cure leprosy. Latex was drunk for fever. Raw fruits were eaten in diarrhea. Young fruit juice was applied in forehead to relieve headache. Young twigs were fed to cattle to facilitate the discharge of placenta. Fume of</td>
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</table>
Traditional uses of Iraqi medicinal plants

- **Ficus religiosa**
  - Traditionally, the leaf juice was used in the treatment of asthma, cough, sexual disorders, diarrhoea, haematuria, earache, toothache, migraine, eye troubles, gastric problems and scabies. The leaf decoction was used as in toothache. The fruits were used in the treatment of asthma and other respiratory disorders and scabies. The stem bark was used in gonorrhea, bleeding, paralysis, diabetes, diarrhea, bone fracture, as antiseptic, astringent and antidote.
  - Root paste was taken to cure headache.

- **Foeniculum vulgare**
  - Fennel was considered as one of the oldest medicinal plants and culinary herbs. It was used over 4000 years ago. Fennel was used by the ancient Egyptians as a food and medicine, and it was considered a snake bite remedy in ancient China. It was used since ancient times to treat menstrual disorders, dyspepsia, flatulence and cough, and to reduce the gripping effect of laxatives. *Foeniculum vulgare* was widely used in traditional Arabian medicine as diuretic, appetizer, and digestive. The fruit, seeds and young leaves were used for flavoring sweets, dishes and dainties. The young leaves, raw or cooked, were used as flavoring. The seeds have an anise-like flavor and used as flavoring. The infused fruits were used as carminative. Roots were employed as purgative. Crushed fruits were inhaled to counter faintness. Infusion of fruit was used for flatulence. Shoots of young plant were used as carminative and in respiratory disorders. Juice of fruit was used to improve eyesight. Decoction was gargled as a breath freshener or applied as an eyewash. Decoction of seeds was used to regulate menses and as diuretic and emmenagogue. Poultice was used to relieve breast swelling in nursing mothers. Infusion of seeds was used for stomatitis, abdominal cramps, colic, flatulence. Fennel water (aqua foeniculi) was used for colic and flatulence in children. Hot infusion of fruit and of roots was used for amenorrhea. Infusion of roots was given for toothaches and postpartum pains. Infusion of seeds was used for flatulence in babies. Infusion of root was also used for urinary disorders. Oil was used for flatulence and intestinal worms. Paste of seeds or fruit were used in cooling drinks for fevers. Seeds also used as stimulant and to enhance libido, to increase breast milk production, for the treatment of venereal diseases, easing childbirth and soothing cough.

- **Fraxinus ornus**
  - *Fraxinus ornus* bark was used in the traditional medicine for wound healing and treatment of inflammation, arthritis and dysentery. Bark was also used as antimicrobial, antiparasitic and insect repellent. A decoction of the flowers, leaves and bark of *Fraxinus ornus* was used to hens in the case of pediculosis. It was also used as dye plants. The manna was collected from cultivated trees. It was used as laxative. It was a nutritive and a gentle tonic, usually operating mildly, but in some cases produced flatulence and pain. It was generally given dissolved in water or some aromatic infusion, in doses of a teaspoonful up to 1 or 2 oz. Usually it was prescribed with other purgatives, particularly senna, rhubarb, magnesia and the neutral salts, the taste of which it conceals while it added to the purgative effect. Syrups of Manna were prepared with or without other purgatives. The Codex of the British Pharmacopœia contained a Syrup of Manna to be prescribed.

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<tr>
<td><strong>Manna</strong></td>
<td>As a mild laxative for children, in the proportion of 1 part of Manna to 10 of water.</td>
<td>563-566</td>
</tr>
<tr>
<td><strong>Fritillaria imperialis</strong></td>
<td><em>Fritillaria imperialis</em> was used traditionally for the treatment of sore throat, cough, asthma, bronchitis, scrofula, gland tumor, dysuria and haemoptysis. The bulb was used as diuretic, emollient and resolvent. It was also used as an expectorant and to encourage increased breast milk production. The bulb was poisonous raw, it contained low concentrations of a toxic alkaloid.</td>
<td>567-575</td>
</tr>
<tr>
<td><strong>Fumaria officinalis</strong></td>
<td>Fumitory was used in many countries for the treatment of skin diseases, rheumatism, hypertension and infections. In northern Portugal, it was used against hepatic and gallbladder diseases as tea. In Italy, the plant was used as cholagogue, hypertensive, antispasmodic, respiratory stimulant, and antiarteriosclerosis. The plant was used in hypertension, constipation, as liver detoxification, and as spasmyloytic in Cyprus. The plant was also used for the treatment of hypertension and cardiac disease in Morocco. It was part of the constituents of many pharmaceutical phyto-preparations used for the treatment of colicky pains of gastrointestinal tract and biliary system. Juice or syrup and seeds were used in cutaneous eruptions such as eczema and psoriasis, in scabies, syphilis, leprosy, tatters, and itches. In Iranian folk medicine the plant was also used in skin diseases, scabies, as antiscorbite and antibronchite. The extracts of <em>Fumaria officinalis</em> was also used in traditional medicine for varied purposes such as the treatment of digestive problems, certain metabolic diseases, liver disorders and to purify blood.</td>
<td>576-579</td>
</tr>
<tr>
<td><strong>Fumaria parviflora</strong></td>
<td>Entire herb was used traditionally in leprosy, fever, for detoxification, and as laxative, diuretic and diaphoretic. The extract of the plant was used as bitter tonic, astringent, for the treatment of dyspepsia and scrofulous skin infections. <em>Fumaria parviflora</em> was also used traditionally in dermatological diseases, in stimulation of liver function and gall bladder and also as antiscabies, antiscorbite, antibronchite, diuretic, expectorant, antipyretic, diaphoretic, appetizer and laxative. In folk medicine of Turkey it was used against hepato-biliary dysfunction, while, in the Unani traditional system it was prescribed to treat gut and respiratory disorders, abdominal cramps, indigestion and asthma.</td>
<td>580-585</td>
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<tr>
<td><strong>Galium aparine</strong></td>
<td>It was eaten as a vegetable. Its seeds was roasted to prepare a sort of coffee substitute. It was also used in traditional medicine as an infusion to treat kidney problems, skin disorders and high blood pressure. Modern herbalists and homoeopaths used the plant for the treatment of scurvy, scrofula, psoriasis, eruptions and many other skin diseases. The infusion was used in cases of insomnia and calming effects. A wash made from the plant was used in sunburn and freckles, a decoction or infusion of the fresh herb also applied to the face by means of a soft cloth or sponge for the same purpose. The crushed herb was applied in France as a poultice to sores and blisters. <em>Galium aparine</em> aerial parts were also traditionally used for the treatment of skin disorders, especially psoriasis; enlarged lymph nodes and cystitis. It was also used for growths or deposits of a nodular character in the skin or mucous membranes. Its main actions were lymphatic and diuretic, although Cleavers was highly regarded in Europe as a depurative with efficacy against conditions such</td>
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<tr>
<td><em>Galium verum</em></td>
<td>It was applied externally in poultice, used for indolent tumors, strumous swellings and tumors of the breast. Internally it was used in decoction sweetened with honey, for urinary stone complaints, scurvy, dropsy, hysteries, epilepsy and gout. It was also used in the bleeding of the nose and stomach problems, and it was said that it peculiarly beneficial in scorbutic, scrofulous, and dropsical complaints. The cut and dried aerial parts of <em>Galium verum</em> have been used for exogenous treatment of psoriasis or delayed wound healing or as a tea for the cure of pyelitis or cystitis. The plant was also used in traditional medicine as an anticancer medicine applied in most cases as a decoction. It was used in Europe and Northern America for the treatment of cancerous ulcers or breast cancer.</td>
<td>586-589</td>
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<tr>
<td><em>Geum urbanum</em></td>
<td>It was used as sedative, hemostatic, astringent and anti-inflammatory. It was also used internally in digestive problems such as loss of appetite and diarrhea. The root was used externally as a gargle for gum and mucous membrane inflammations and as a bath additive or poultice for frost bite, hemorrhoids and skin diseases. Homeopathic applications of the plant were included inflammations of the bladder and urinary tract.</td>
<td>590-591</td>
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<tr>
<td><em>Glaucium corniculatum</em></td>
<td>The plant was use in diabetes and a neurasthenia. Flowers and juice with honey were applied at purulent wounds. In Persian pharmaceutical manuscripts, <em>Glaucium corniculatum</em> flowers were used for epistaxis. In Turkey, the plant was used as tranquilizer, for coughing, as narcotic and to reduce heart palpitation. Oil extracted from the plant was used for eye diseases especially inflamed, wet and tearing eyes. The poultice of macerated roots was used to decrease cholesterol and for the treatment of acne.</td>
<td>592-596</td>
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<tr>
<td><em>Glossostemon bruguieri</em></td>
<td>The root was sold in the bazaars of Egypt and Baghdad in a powdered form and employed by Coptic and Arabian women as a strengthening medicine. Before 1914 it was exported in considerable quantities, chiefly to Egypt, as an aphrodisiac. A decoction of the root was sometimes used at Baghdad as a cough cure. The plant was commonly consumed as a traditional lactagogue in Egypt. It was used in Egyptian folk medicine as a nutritive tonic for the purpose of promoting lactation, increasing body weight, treating gout, and acting as a demulcent. Furthermore, it was given to nursing mothers needing nutritive replenishment and for bone strengthening. Moghat was also used by the Egyptians as an antiinflammatory, in autoimmune diseases, lupus, rheumatoid arthritis, gout, and to decrease the blood glucose level in diabetes. Powdered root of <em>Glossostemon bruguieri</em> was used in the kingdom of Saudi Arabia, for general well-being. The dried leaves of <em>Glossostemon bruguieri</em> were crushed and mixed with wheat flour for the treatment of gastrointestinal disorders in cows, camels, sheeps and goats in the kingdom of Saudi Arabia.</td>
<td>597-600</td>
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<tr>
<td><em>Glycyrrhiza glabra</em></td>
<td>The dried rhizome and root have been used as expectorant and carminative by the Egyptian, Chinese, Greek, Indian and Roman civilizations. Licorice was known in Chinese medicine as early as 2800 B.C. In Tibet, it was considered a</td>
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<tr>
<td>Licorice</td>
<td>classical medicine. In the tomb of the Egyptian pharaoh Tutanchamon (1350 B.C.), the healing power of licorice roots was described. The use of licorice preparations to alleviate throat and bronchial infections was known for more than 2000 years. Leaves were used externally for the treatment of wounds. Rhizome and root were used orally to treat cystitis, kidney stones, lung ailment, diabetes, cough, stomachache, gastric ulcers, tuberculosis, Addison’s disease, it was also used as mild laxative, contraceptive and to improve sexual function. In addition, it was also used in sore throat, influenza, cold, bronchodilator, ophthalmia, anti-syphilitic, antisyphilitic, gastric imbalance, indigestion, vomiting, diarrhea, swollen abscesses and as diuretic. Furthermore, licorice was also used as a flavoring agent in the tobacco and candy industries and to some extent in the pharmaceutical and beverage industries today.</td>
<td>606-610</td>
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<tr>
<td>Gnaphalium luteoalbum</td>
<td>In the Punjab, the leaves of the plant were used as vulnerary and astringent. In Pakistan, it was used as anti-diarrheal and the infusion of aerial parts was used as emmenagogue. In Bangladesh, the plant was applied as a poultice to heal fractured bones. It also used in Bangladesh as tonic and for the treatment of tumor, gout and dermatitis. In Iraq, it was used traditionally as astringent, counterirritant, as vulnerary and for the treatment of gout. In Belgium, it was used for the treatment of cancer (Breast). The leaves of <em>Gnaphalium luteoalbum</em> were also used as astringent, cholagogue, diuretic, febrifuge, and haemostatic.</td>
<td>611-614</td>
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<tr>
<td>Gossypium herbaceum</td>
<td><em>Gossypium</em> spp was an earliest plants that were cultivated by man and it has been used for over 4,000 years. It is primarily cultivated for fiber used in the textile industry. The genus <em>Gossypium</em> spp. includes many species distributed throughout the world, but only four species are grown for cotton fiber: <em>Gossypium hirsutum</em> L., <em>Gossypium barbadense</em> L., <em>Gossypium arboretum</em> L., and <em>Gossypium herbaceum</em> L. The most economically important cotton species is <em>Gossypium hirsutum</em>, which is grown to produce 90% of the world's cotton. Medicinally, cotton seeds were used as pain reliever, as a nervous tonic in treating of headache and migraine, the decoctions of the seed were given in intermittent fever. The seeds and flowers in the form of poultice were applied to burns. Seeds were also used in epilepsy and as an antidote to snake poison. The juice of the leaves and the decoctions of the seed were used in dysentery. Leaves, root and seeds of <em>Gossypium herbaceum</em> were used to augment labour, in retention of placenta and as emmenagogues. In Senegal a root maceration was given to new-born babies and sickly or rachitic children, to strengthen them. In Somalia a root decoction was used as an abortifacient and the juice of the heated unripe fruit was dropped into the ear against earache. In Ethiopia the root was chewed in case of a snake bite and the powdered fruit was applied on the head for the treatment of fungal infections. In Namibia the powdered root bark was applied as a haemostatic. In Botswana root preparations were used for the treatment of heart palpitations. In Mozambique root decoctions were used as a tonic and to control vomiting, and the infusion of the root against lack of appetite. The stem juice was used in otitis.</td>
<td>615-618</td>
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<tr>
<td>Gossypium hirsutum</td>
<td>Seed and roots were used in nasal polyps, uterine fibroids and other types of cancer. Mucilaginous tea of fresh or roasted</td>
<td>615-618</td>
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seeds were used for bronchitis, diarrhea, dysentery, and hemorrhage. Flowers were used as diuretic, emollient and in hypochondriasis. Leaves steeped in vinegar were applied to the forehead for headache. It was used by early American slaves for abortion. Root decoction was used for asthma, diarrhea, and dysentery. Root bark, devoid of tannin, astringent, antihemorrhoidal; used as an emmenagogue, hemostat, lactagogue, oxytocic, parturient, and vasoconstrictor. Gossypol was used in China as a male contraceptive. Root decoction was used for the treatment of asthma, diarrhea, and dysentery. Seeds were used for the treatment of swelling and ulceration of female organs, and urinary diseases. Extract of seed coat was used for the treatment of fungal infections. Women use the plant in menstrual disorders and to decrease the symptoms of menopause and to enhance labor. In Benin, a decoction of the leaves of *Gossypium hirsutum* and those of *Flueggea virosa* (Roxb. ex Willd.) Voigt was taken for the treatment of intestinal colic, constipation, low blood pressure and asthenia. The powdered seed or a seed decoction was taken against convulsions with fever. In East Africa the root was chewed or a root decoction drunk against stomach-ache.

**Haplophyllum species**

*Haplophyllum* species were used in Iraq, as a salve for wounds. The decoction was used as a cure in stomach-ache for children. *Haplophyllum* species were suggested to have activity on central nervous system. For instance, the leaves of these plants were given to children as an infusion with vinegar for the treatment of convulsion and other nervous disorders. However, *Haplophyllum tuberculatum* was used traditionally in Algeria for many complains as antiseptic, for injuries and ulcers, as calming, hypnotic neurological, for infertility, diabetes, bloating, fever, liver disease, otitis, rheumatism, as vermifuge, for obesity, constipation, colon, diarrhea, gases, hypertension, menstrual pain, cardiac disease, scorpion stings, flu, vomiting, throat inflammation, tonsillitis, cough and loss of appetite. In the north of Oman, the juice expressed from the leaves was used as a remedy for headaches and arthritis. In Saudi Arabia, *Haplophyllum tuberculatum* was used traditionally for headaches and arthritis, to remove warts and freckles from the skin and to treat skin discoloration, infections and parasitic diseases. In Sudan the herb was used as an antispasmodic, to treat allergic rhinitis, gynecological disorders, asthma and breathing difficulties.

**Hedera helix**

It was used in common cold associated with cough and for the symptomatic treatment of acute and chronic inflammatory bronchial disorders. The leaves were used as analgesic and anti-inflammatory, the leaves and berries were taken orally as an expectorant for the treatment of cough and bronchitis. The boiled leaves of *Hedera helix* was applied to the part of the body afflicted, fight ringworm, scabies and worm. It was used to treat depression, as stimulant, narcotic and hallucinogenic depending on the amount that was drunk. A decoction of the leaves of *Hedera* was used in diabetes in Turkey. Topically, it was used as a soothing and antipruriginous, as a protective treatment for cracks, grazes, chapped skin and insect bites.

**Helianthus annuus**

The seeds, flower petals and tender leaf petioles are edible. Flower petals can be eaten raw or cooked but are best eaten in the young bud stage when it has an artichoke flavour. The
sunflower was used as food and medicine worldwide. *Helianthus annuus* was cultivated basically for its seeds, which give the world’s second most important source of edible oil. Sunflower oil was light in color, mild in taste, and low in saturated fats. It contained more of the antioxidant vitamin E than any other vegetable oil and is also high in vitamins A and D. Sunflower oil was able to withstand high temperatures and was thus a good choice when frying foods. Sunflower oil can be used in stead of olive oil in salads and dressings. The oil was also used in cosmetic formulation. The seed oil, shoots, and herb tincture was employing as anti-inflammatory, anti-oxidant, antitumor, antiasthmatic, antipyretic, astringent, anthypoglycemic, cathartic, diuretic, stimulant, vermifuge, antimicrobial and for vulnerary purposes. Seeds were used as diuretic, expectorant, for colds, coughs and throat and lung ailments. The flowers and seeds were used in Venezuela in a folk remedies for the treatment of cancer. A tea made from the leaves was astringent, diuretic and expectorant, it was used in the treatment of high fevers. The crushed leaves were used as a poultice on sores, swellings, snakebites and spider bites. A tea made from the flowers was used in the treatment of malaria and lung ailments. The flowering head and seeds were febrifuge, nutritive and stomachic. A decoction of the roots was used as a warm wash on rheumatic aches and pains. A tincture of the flowers and leaves was recommended in combination with balsamics in the treatment of bronchiectasis. The seeds, if browned in the oven and then made into an infusion are admirable for the relief of whooping cough.

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<tr>
<td><em>Helianthus tuberosus</em></td>
<td>Jerusalem artichoke was considered as one of the primary sources for inulin in higher plants. Its protein has high food value due to the presence of almost all essential amino acids, it was used as livestock feed. Tubers of <em>Helianthus tuberosus</em> were utilized as a diuretic, spermatogenic, tonic, galactagogue, aphrodisiac, anthemorrhoidal, collagogue and to decrease diabetes symptoms. Leaves were used as a natural medicine for the treatment of skin wound, bone fracture and swelling.</td>
</tr>
<tr>
<td><em>Helicophyllum crassipes</em> (<em>Eminium spiculatum</em>)</td>
<td>It was an edible plant. It was eaten by the Beduins on the Egyptian coast. In Jordan, it was used as an anticancer agent. In Iraq, the plant decoction was used as a depurative and for treatment of animals scapies.</td>
</tr>
<tr>
<td><em>Helicophyllum rauwolfii</em> (<em>Eminium rauwolfii</em>)</td>
<td>Traditionally used as antiseptic, for itching, pediculicide, scabies and for the treatment of poisoning.</td>
</tr>
<tr>
<td><em>Heliotropium undulatum</em> (<em>Heliotropium bacciferum</em>)</td>
<td><em>Heliotropium bacciferum</em> was used for hypotension, fever and stomach ulcers in traditional medicine. It was used in Cape Verde as a cardiotonic. It was also used as a repellent for storage insects in Egypt and Pakistan.</td>
</tr>
<tr>
<td><em>Heliotropium europaeum</em></td>
<td>It was used as purifier. Flowers were used to give relief from constipation and piles. Powder of leaves was used to treat skin problems. The juice of the crushed <em>Heliotropium europaeum</em> was used topically to treat dermatophytosis of hair, nails and skin in domestic animals, while boiled leaves were applied on skin to treat pimples and eruption.</td>
</tr>
<tr>
<td><em>Herniaria glabra</em> and <em>Herniaria hirsuta</em></td>
<td><em>Hernia glabra</em>, the whole plant, was used as astringent, diuretic and expectorant. It appeared to have an antispasmodic effect upon the bladder and was used in the treatment of dropsy, catarrh of the bladder, cystitis and kidney stones.</td>
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<td>External uses of Hernia glabra</td>
<td>Externally, it was used as a poultice to speed the healing of ulcers. Kozachok <em>et al.</em>, mentioned that <em>Hernia glabra</em> was officially present in the Pharmacopeias of Poland, Czech Republic, Austria, Hungary and Balkans, it was used traditionally for the treatment of kidney and bladder stones, gouts, urinary bladder infections, renal disease, diabetes, hernias, hypertension, cardiac decompensation, as well as rheumatism, and was externally applied as an antiseptic and skin emollient. The infusion of <em>Hernia hirsuta</em> was used as a remedy for urinary and kidney problems. Both <em>Hernia glabra</em> and <em>Hernia hirsuta</em> were used traditionally as blood purification, circulatory disorders, vascular disorders, to decrease blood pressure, diuretic, bone and Joint conditions, respiratory conditions and breathing disorders, neuritis, neural catarrh and for urinary tract conditions.</td>
<td>657-662</td>
</tr>
<tr>
<td><em>Hibiscus cannabinus</em></td>
<td>The flowers were considered emollient, and an infusion of the petals was used as a demulcent. Its decoction was given in bronchial catarrh in India. Seeds were considered aphrodisiac, fattening, aphrodisiac, purgative, for stomachic, bilious conditions, bruises, fever, and puerperium. Powdered leaves were applied to Guinea worms in Africa. Africans use peels from the stems for anemia, fatigue, lassitude, etc. In Gambia, the leaf infusion was used for coughs. In local medicine in Kenya, pounded roots were administered to spider bites, and leaves were used to treat stomach disorders. In West Africa, powdered leaves were applied to sores and boils, and a leaf infusion was administered for treatment of cough. In India, juice from the flowers was taken against biliousness. Seeds were applied externally to aches and bruises, juice of the flowers with sugar and black pepper was used in biliousness with acidity. It was also used as antidote to poisoning with chemicals (acid, alkali, pesticides) and venomous mushrooms.</td>
<td>663-670</td>
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<tr>
<td><em>Hibiscus rosa-sinensis</em></td>
<td>In medicine, the red flowered variety was preferred. Roots and leaves, were anodyne and emmenagogue. They were used to regulate menstruation and stimulate blood circulation. Leaves were also used as abortifacient and to stimulate expulsion of placenta after childbirth. Flower were used for regulation of menstrual cycle, for liver disorders, high blood pressure as antitussive, in stomach pain, for eye problems, as abortifacient and as an aphrodisiac. Young leaves and flowers were used in headache. Decoction of leaves, root and fruits were helpful in treatments of arthritis, boils and coughs. Fruits were employed externally in cases of sprains, wounds and ulcers. The leaves of <em>Hibiscus rosa-sinensis</em> were used for the treatment of dysentery and diarrhea, to promote draining of abscesses and as analgesic in the traditional medicine of Cook Islands, Haiti, Japan and Mexico. Flowers of the plant were used in diabetes, epilepsy, bronchial catarrh and leprosy. The flowers have been reported in the ancient Indian medicinal literature with beneficial effects in heart diseases. They were refrigerant, emollient, demulcent, aphrodisiac and emmenagogue. Petals were used to stimulate thicker hair growth and to prevent premature graying, hair loss and scalp disorders. It considered as a natural emollient hair conditioner and was used in hair washes, treatments and vinegar rinses for the hair.</td>
<td>671-682</td>
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<tr>
<td><em>Hibiscus sabdariffa</em></td>
<td>Hibiscus has a long history of use in Africa and neighboring tropical countries for many conditions, including</td>
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hypertension, liver diseases, cancer, constipation, and fever. Fresh or dried calyces of *Hibiscus sabdariffa* were used in the preparation of herbal drinks, hot and cold beverages, fermented drinks, wine, jam, jellied confectionaries, ice cream, chocolates, flavouring agents, puddings and cakes. Roselle was used as herbal tea to soothe colds, clear a blocked nose, clear mucous, as an astringent, promoting kidney function, aiding digestion, as a general tonic, diuretic, and antipyretic. *Hibiscus sabdariffa* was also used as folk remedy for abscesses, cancer, cough, debility, dyspepsia, dysuria, fever, hangover, heart ailments, neurosis, scurvy and strangury. In Mexico, India and Africa infusions of the leaves or calyces were traditionally used as diuretic, cholericetic, febrifugal and hypotensive, to decrease the viscosity of the blood and to stimulate intestinal peristalsis. In India, a decoction from the seeds was used to relieve pain in urination and indigestion. In Chinese folk medicine, it is used to treat liver disorders and high blood pressure. In North Africa, calyces preparations were used to treat sore throats, coughs, and emollient leaf pulp was used for the treatment of external wounds and abscesses. In Nigeria, a decoction of the seeds was used traditionally to enhance or induce lactation in cases of poor milk production and poor letdown. In Iraq, a decoction was used as digestive, diuretic, sedative and refresher. In Iran, sour hibiscus tea was reportedly a traditional treatment for hypertension. In Uganda, *Hibiscus sabdariffa* was used in anemic and sick individuals to improve their health and as an immune booster.

| **Hyoscyamus albus** | The plant extracts were used in traditional medicine as an antiasthmatic and antispasmodic. It was also used as hallucinogenic and sedative alone or mixed with *Cannabis and Datura*. | 683-685 |
| **Hyoscyamus niger** | *Hyoscyamus niger* has a very long history of use as a medicinal herb, it was used extensively as a sedative and pain killer. It was also used in mental disorders, epileptic mania, and chronic dementia with insomnia, paralysis, agitans, convulsions, neuralgia, spasmodic cough and asthma. It was also used for the treatment of abdominal colic, pain due to worm infestation, toothache, pain of pulmonary infections, tumors pain, pain associated with urinary tract, especially kidney-stone. The seed oil was used externally for neuralgic, dental and rheumatic pains. It was also used in odontalgia, bleeding gums, dental caries, mamillitis, orchitis, rheumatoid arthritis, worm infection, colic, dyspepsia, flatulence, cardiac debility, epistaxis, haematemeses, haemoptysis, whooping cough, asthma, bronchitis, catarrh, conjunctivitis, otalgia, cephalalgia, fever, meningitis, anxiety, insomnia, scabies, urinary calculi, diabetes, spermatorrhoea, dysmenorrhoea, leucorrhoea, amenorrhoea, neuralgia, beneficial in irritable affections and urinary tract. | 686-692 |
| **Hyoscyamus reticulatus** | It was used in asthma, gastric ulcers, for motion sickness and in Parkinson’s disease. It was also used as mydriatic, spasmolytic, analgesic, sedative and as antidote for intoxications of many poisons. | 693-695 |
| **Hypericum triquetrifolium** | *Hypericum triquetrifolium* was used in traditional Arab herbal medicine to treat various inflammatory diseases and as sedative, astringent, antispasmodic, for intestine and bile disorders and poisoning. It was used in Turkish folk medicine in the treatment of bile and intestinal ailments. | 686-701 |
#### Traditional uses of Iraqi medicinal plants

| **Inula graveolens**  
| (Syn: Ditrichia graveolens) | *Inula graveolens* was widely used in aromatherapy for the treatment of asthma. It was used as bronchospasmytic and mucolytic. *Inula graveolens* was widely used in Iraq for the treatment of rheumatic fever, infant convulsions, toothache, to reduce blood sugar, to dissolve internal blood clots, and to aid digestion. In Iranian traditional medicine it was used as an anti-inflammation, antirheumatism, antitumor, antipathogene and antinfection specially in the treatment of leishmaniosis. It was also used for treatment of urinary tract infections, hemorrhoids, cold and wound infections. Oil was inhaled in low concentrations for desired mucolytic effect, as decongestant in sinusitis and respiratory inflammations, and for loosening mucus in unproductive coughs and asthmatic conditions. Topically, it was used as counteracts and was blended with Eucalyptus Dives, Spike Lavender, and Rosemary Verbenone, to relieve acne caused by overactive sebaceous glands. *Inula* dissolved hardened sebum from clogged glands. Essential oil was also used to support lymphatic circulation and the immune system, and to reduce acneic skin inflammation. | 702-705 |

| **Iris pallida**  
|  | The root was used as antispasmodic, aperient, aromatic, attenuant, carminative, detoxicant, diuretic, emetic, emmenagogue, expectorant, fixative, laxative, pectoral, purgative and sedative. Rhizomes of *Iris pallida* (orris root) were used in perfume and medicine. The juice of the fresh root was a strong purge and used in the treatment of dropsy. Orris oil derived from the dried root, was used as a flavouring in soft drinks, sweets, chewing gum etc. It was much used as a fixative in perfumery, as an ingredient of toothpastes, for the treatment of cough and as breath fresheners. | 706-708 |

| **Jasminum officinale**  
|  | Leaves were chewed in aphthous, stomatitis, toothache and ulcer in the mouth. Leaf juice or oil obtained from it was dropped into the ear. Fresh juice of the leaves was used for sort corns between the toes, for ulceration in the mouth, throat and gums. *Jasminum officinale* was also used traditionally for the treatment of urinary tract infections(8), as CNS depressant, sedative, mild anesthetic and astringent. In addition, it was used in depression, nervous exhaustion and stress related conditions, It was said that the plant was also used to produce the feeling of optimism, confidence, euphoria, and it was good in cases of apathy, indifference, or listlessness. It was also used for catarrh, coughs, laryngitis, dysmenorrhoea, labor pains, uterine disorders, skin problem such as dry, greasy, irritated, sensitive skin, and for muscular spasms and sprains. The buds of *Jasminum officinale* L. var. *grandiflorum* (L.) were used as a folk remedy for the treatment of hepatitis, dysmenorrhea, stomatitis, and duodenitis in South China. | 709-714 |

| **Jasminum sambac**  
|  | The flowers of *Jasminum sambac* were used in the preparation of an essential oil and for making jasmine tea. The flowers were bitter, pungent, cooling, braintonic, purgative, cure tridosha, biliousness, itching sensation, in fever, to stop vomiting, useful in the diseases of eye, ear, mouth and used in skin diseases (leprosy and ulcers). The flowers were also used for the treatment of diarrhea, abdominal pain, conjunctivitis, asthma, cancer, wound healing, toothache and dermatitis. The leaves were used to heal the wounds. The flowers and leaf were also used in folk medicine to prevent and treat breast cancer. The flowers were  | 715-724 |
used by the women when brewed as a tonic and for prevention of breast cancer and stopping uterine bleeding. The plant was included in herbal preparations for the treatment of insanity and epilepsy. The whole plant was considered as anthelmintic, diuretic and emmenagogue.

| **Juglans regia** | Archaeological evidence suggested gathering and consumption of walnuts by humans occurring c.a. 7300 yr B.P in proximity to the Mediterranean. Historically, several parts of plant including seeds, bark, leaf, and seeds green husks were used as natural remedies in folk medicine. The edible part of the fruit (the seed or kernel) was consumed, fresh or toasted, alone or with other edible products. It was globally popular and valued for its nutritional and health promoting properties. Walnut leaves were widely used in traditional medicine for the treatment of skin inflammation, venous insufficiency, hyperhidrosis haemorrhoidal symptoms, ulcers, for diarrheic, as anthelmintic, depurative, antioxidants, antiseptic, antibacterial, astringent and chemopreventive Purposes. The root and stem bark were used as anti-helmentic, astringent and detergent. The stem bark was dried and used as a tooth cleaner and whitener. The decoction of leaves and bark was used with alum for staining wool brown. In Kashmir Himalaya, the leaves were used as mosquito replant, lice killer, for the treatment of itching, chronic dysentery and frost bite; fruits were used as brain tonic, aphrodisiac, in constipation and for the treatment of rheumatism; the oil was used as dandruff, in muscular pain, to improve eye sight and as memory enhancer; while roots were used in hair fall, tooth decay, as antiseptic and to heal the wounds. | 725-732 |

| **Juncus maritimus** | It was used for the treatment of renal lithiasis, anti-gallstones and as diuretic. | 733 |

| **Juniperus communis** | Juniper has a history of medicinal use dating as far back as 1550 BC. A remedy to treat tapeworm was found in (The Papyrus of Ani) from ancient Egypt, 240 BC. It was also known that the branches and berries were burned in temples as a part of purification ceremonies. Aerial parts were used for acute and chronic cystitis, albuminuria, catarrh of the bladder, leucorrhoea, and amenorrhoea. Fruits were used as antiseptic, stimulant, disinfectant, chronic Bright’s disease, migraine, dropsy, rheumatic and painful swellings, piles, and infantile tuberculosis. Bark was used in nephrotic dropsy of children, asthma, gonorrhoea, pulmonary blennorrhoea, arthritis, respiratory affections, diabetes, bladder affections, chronic pyelonephritis, cough, abdominal disorders, and skin affections. The whole plant was used as carminative, urinary antiseptic, diuretic, emmenagogue, sudorific, digestive, and as anti-inflammatory. Juniper oil has been used as a carminative, in the treatment of arthritis, as diuretic and as a steam inhalant in the management of bronchitis. Oil of *Juniperus* was also used in aromatherapy, through inhalation, massage, ingestion to create good health and beauty and used in perfume industries. | 734-741 |

| **Juniperus oxycedrus** | Decoction of *Juniperus oxycedrus* subsp. oxycedrus L. berries was used internally as tea and pounded fruits to lower blood glucose levels in Turkey. *Juniperus oxycedrus* was also widely used as traditional folk medicine for treatment of different infectious diseases, chronic eczema and other several skin diseases, hyperglicemia, obesity, tuberculosis, bronchitis, | 742-747 |
and pneumonia. Cade oil was used as a fragrance component in soaps, detergents, creams, lotions, and perfumes. Cade oil was largely employed in the treatment of chronic eczema, psoriasis and other skin diseases, and as t parasiticide in psora and favus. It was applied, sometimes of full strength, sometimes diluted with a bland oil, well rubbed into the affected parts with the fingers, or with a cloth, and was also made into ointments, and especially into soaps.

**Jussiea repens**

Decoction of dried material was used for colds with fever, intense coughing, and inability to urinate. Decoction was also used as astringent for dysentery. Pounded fresh material applied as poultice to carbuncle, sprains, and snake bites. In the Antilles, it was used as an emollient. In south western China, the plant was eaten as vegetable. Malays used it for poulticing skin complaints. The whole plant was used as antiseptic and as a poultice in ulcers. The plant was also used as emetic, laxative, anthelmintic and antidiysenteric. It was also used as diuretic, for the treatment of cough, Jaundice, gonorrhea, measles and erysipelas boils. It was used traditionally to prevent diabetes. Fresh leaf paste was applied in boils and burns as coolant. Cooked shoot was eaten regularly in empty stomach against strangury. In Papua, New Guinea, the leaves and stem of this plant were used as contraceptive. Dried plant powder was applied externally on skin to cure various skin diseases.

**Kochia scoparia (Bassia scoparia)**

The fruit of *Kochia scoparia*, which was used orally and topically administrated for more than 2000 years in China for the treatment of diseases of the skin, urinary tract, and eyes and also used in Japan as a foodstuff. It was also widely used in south eastern Asia, for the treatment of dysuria, skin diseases, chest and flank pain, and cancers especially breast masses. It also used traditionally as a dietary supplement and herbal remedy to treat inflammatory diseases such as osteoarthritis, rheumatoid arthritis, and chronic pain. *Kochia scoparia* was used as a tonic, diuretic, analgesic, and antidote and for the treatment of cutaneous pruritus and thermal skin diseases in traditional Korean preparations.

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### I. CONCLUSION:

This study highlighted the importance of Iraqi medicinal plants in the treatment and management of human diseases and ailments as known by traditional medicine.
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