

World Spice Plants

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With 93 Figures

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Foreword

It is a pleasant fact that general consciousness of health and diet is growing, thus enabling the public, by means of a balanced diet, to participate in preserving global health. Spices and aromatic plants have a role to play in this which should not be underestimated. It involves not only the use of spices in preparing good tasting meals, but equally the increasing use of spices in all areas of the food industry, and also in pharmacy and medicine. The observations of our ancestors that certain herbs and their parts (leaves, fruits and seeds) not only improve the flavor of foods but have a positive effect on our health are being turned to good use.

Initially, our forefathers collected only local plants. But via foreign trade, voyages of discovery, migration and even wars they came into contact with new plants, including many spices from other geographical areas. The oldest spice discoveries were made in Mexico. The native Mexicans were spicing their meals with chilli as early as 7000 B.C. For the western world the origins of spices was India. Five thousand years ago there was already an extensive network of trade routes ranging from China to India, Persia, Mesopotamia and Egypt. The remains of certain spices (aniseed, fenugreek, fennel, cardamom, caraway, saffron and cinnamon) were found in the pyramids, indicating their use as burial gifts. In the world of the pharaohs, spices were not reserved for the ruling classes, the meals of the slaves were also spiced. This was not an act of charity but was intended to preserve the health of the workforce. Egyptian construction workers rebelled around 1600 B.C. because garlic, which was important for counteracting the negative health effects of building the pyramids, had been removed from their diet plan (the first strike in history!). The significance of spices at that time can be gleaned from the collection of recipes entitled „Papyrus Ebers“, which was written in 1500 B.C. at the River Nile.

For centuries spices were transported along the caravan trails from China and India to Europe. The Silk Road was one of the more famous of these trade routes.

Despite their long tradition spices are subject to international modern scientific research. This has made it necessary to disseminate knowledge to a large audience of interest. This book addresses this need by informing the reader about the complex worldwide use of spice plants.

The many spice and aromatic plants are arranged in alphabetical order of their botanical relevance. It includes all species which have been cultivated for the above purposes. It also covers species whose usage has long ceased or which are used only rarely or have become wild. In this respect we have aimed at comprehensiveness. Furthermore, we have included plants used as pot herbs or whose ashes are used as a substitute for cooking salt, or those used as a basis of various condiments such as mustard, soy sauce, ketchup, etc., or are used to add aroma to foods, like spirits. In total over 1400 plants have been collated. Some of them are relevant only to a certain region. Plants and their

extracts or ethereal oils used exclusively in perfumes and cosmetics have not been included.

The register of literature has been designed to facilitate intensive study of a specific plant or spice. The analysis of scientific literature – particularly over the last 40 years – was achieved by means of original works, specialist journals, textbooks, the secondary literature mentioned in all of these as well as our own database. Works both on botany and agriculture, and on chemistry, pharmacodynamics and usage have been considered. It can be seen clearly that individual spices have been treated very differently. Whilst the literature on many spices is almost never ending, e.g. *Allium*, *Capsicum*, *Glycine*, *Mentha*, *Ocimum*, *Origanum*, *Vanilla* and *Zingiber*, a few spices are completely lacking any significant information to fall back on. In a few individual cases our own personal experiences are included.

The book is aimed principally at spice and aroma experts, pharmacists, botanists and interested lay persons. But we also had in mind food chemists, dieticians and agricultural scientists, for whom botany, chemistry and pharmacological aspects may be of interest. It is hoped that those occupied in the spice and aroma industry involved in creating spice blends and the like will also take inspiration from the book.

The many color illustrations will hopefully acquaint the reader with both well and lesser known spice plants and with the spices from various geographical areas.

It is with great pleasure that I thank all those colleagues who offered advice and were happy to answer my questions. Without the generous assistance of the Botanical Garden and the Botanical Museum in Berlin-Dahlem this book would not have been possible. In particular I would like to thank the Directors Drs. Hakki and Th. Raus for their interest and discussions. They granted me permission to use their very extensive library and archive as well as the herbarium and the large collections which acquainted me with many unknown spices and aromatic plants and their various parts. My particular thanks go to Dr. Peter Scharf, formerly of the Botanical Institute of the University of Potsdam, for reading through the manuscript. I am also grateful to Mr. H.-D. Neuwinger St Leon for invaluable information particularly on African plants used as spices. And last but not least I thank Dr. Th. Mager and Mr. A. Spencer of Springer Verlag who accommodated many of my wishes concerning the layout and content of the book.

Author and publisher are fully aware that a work of this kind can never be exhaustive and that possible inaccuracies and gaps are unavoidable. Hints for additions and improvements by the readership will be very welcome.

Potsdam April 2004
Johannes Seidemann

Structure of Entries

The spice plants, plant spices and aromatic plants – hereafter referred to collectively as spices – are arranged in alphabetical order of their scientific genus. In the case of multiple species of a genus the arrangement of these is also alphabetical. Synonyms have been included with the species names. Of the myriad local names for spices only the more common have been included. They are followed by the usage of plants and which parts are used as spices, together with information on their geographical distribution and areas of cultivation, and finally a list of the relevant literature.

Many lesser known plants have been included whose usage is based on personal experiences on travels and those of our colleagues. In these cases there is often no literature available.

Scientific Names

The scientific plant names with their author names are in accordance with the International Code of the Botanical Nomenclature (ICBN) of 1978 (cf. Zander (2002) *Handwörterbuch der Pflanzennamen*, 17. edn. Ulmer, Stuttgart, or Hanelt P (2001) *Mansfeld's Encyclopedia of Agricultural and Horticultural Crops*. Springer, Heidelberg Berlin New York). It is emphasized that the oldest publication determines the nomenclature of a taxonomical group. Varieties, types and sorts have been included only in rare cases.

Synonyms

The most important plant synonyms are included for each spice. These are listed alphabetically with a cross reference to the official plant name.

Common Names

Listed after the English or anglicized name are other common names listed alphabetically by language or region of usage.

Inclusion of the various vernacular plant names in different languages was achieved by reference to the literature, both books and journals on the subject and dedicated dictionaries of plant names (Hanelt 2001, Quattrocchi 1999/2000, Kays/Dias 1995 and Wiersma/Leon 1999, etc). This was not always easy, particularly with Chinese, Indian and African names due to their sheer number, the size of the countries and the many tribes and peoples. Only the more common names have been included.

Usage

Here there are short details of usage as spice, pot herb, ingredient for condiments and the flavoring of food and dishes. Plant ashes used as a substitute for salt are listed under condiments.

Plant Parts

In the course of studying the literature it became evident that details of the used plant parts is often missing. In the case of better known plants these are already known, but it is a mistake to assume that the parts are always the same for different species of a genus. For instance, pepper does not always provide its fruit for flavouring but in some cases only the leaves. Conversely, multiple parts of some plants can be used, as with for example coriander and parsley, where the fruit and the seeds, leaves and sometimes even the roots are used.

Distribution

Details of distribution are given, wherever possible, uniformly – in some cases in the general area, like North America with Canada, South or Latin America from Mexico to Terra del Fuego; Europe; East Asia; the Near East; Africa; Australia and New Zealand, but at other times confined to a certain zone, like North or West Africa, or Central America. Where the distribution of a species is limited to a very small area, details of the countries, states or provinces have also been considered.

Notes

Here we have given special notes on individual plants, such as on taste, on types, e.g. green and white pepper with *Piper nigrum*, or on discovery, e.g. with *Mentha piperita*.

Literature

A selection of publications on which the information presented in the book is based is given with each entry. Here we have reduced the reference to name and year of publication for single works, and in the case of larger multi-volume works we have added the volume number. A complete literature list, sorted alphabetically by author, is included at the end of the book. Where more than one work has appeared by the same author in a year these have been marked a and b, e.g. Seidemann 1995a. With the abbreviations of journals we have adhered to the international standard, whereby clarity has been given priority over conciseness.

A

Abelmoschus Medik. - Malvaceae

 **Abelmoschus ficulneus** Wight et Arn.

➤ *Abelmoschus moschatus* Medik.

 **Abelmoschus moschatus** Medik. *ssp.*
moschatus Medik. 

Synonyms ▶ *Abelmoschus ficulneus* Wight et Arn., *Hibiscus abelmoschus* L., *Hibiscus moschatus* Salisb.

Common Names ▶ abelmosk seed, ambrette seed, amber seed, musk mallow, musk okra; *Arabic*: abu-el-misk (father of moschus), abu-el-mosk, bamia; *Brazil (Portuguese)*: abelmosco, ambarino; *French*: ambrette, ketmie musquée; *German*: Abelmoschus-samen, Ambramalve, Ambrette, Bisamkörner, Muskateller-Eibisch; *Hindi*: algalia, mushk dana; *Italian*: abelmosco, ambretta; *Japanese*: ryû kyû-tororo-aoi; *Mexican*: Doña Elvira; *Pilipino*: kastuli, dalupang, daopang, marapoto; *Russian*: bamija, hibiskus; *Sanskrit*: latakasturi; *Spanish*: abelmosco, algalia, ambarcillo, ambarina, café extranjero, *Thai*: chamot-ton, somchaba, mahakadaeng

Usage ▶ spice, flavoring of coffee in Arabian regions; **product**: essential oil (liqueurs, tobacco industry)

Parts Used ▶ seed

Distribution ▶ E Africa, Indian to N Asia, Malaysia, N Australia, widely cultivated in tropical and warmer countries



 **Abelmoschus moschatus, flowering**

Bois 1934; Burkill 4, 1997; Cheers 1998; Cravo et al. 1992; Dastur 1954; Erhardt et al. 2002; Hager 4, 1992; Hanelt 2001; Hiller/Melzig 1999; Hoppe 1949; Nee et al. 1986; Oyen/Dung 1999; Schultze-Motel 1986; Seidemann 1993c; Sharma 2003; Shiva et al. 2002; Small 1997; Täufel et al. 1993; Turova et al. 1987; Uphof 1968; Villamar et al. 1994; Wiersema/León 1999; Wüstenfeld/Haensel 1964; Zeven/de Wet 1982

A

**Abrus Adans. - Indian Liquorice -
Fabaceae (Leguminosae)** **Abrus precatorius L.**

Synonyms ▶ *Glycine abrus* L.

Common Names ▶ Crab's eye vine, Indian liquorice, jequirity, rosary pea; *Chinese*: xiang si zi, hsiang ssu, hung tou, tzu, *French*: liane réglisse, pois à Chapellet, réglisse sauvage; *German*: Paternostererbse; *India*: glumachi, gunchi, gunja, kunni, kunri, rati; *Malaysian*: akar, belimbing, saga betina; *Pilipino*: laga, kaloo, saga; *Vietnamese*: cam thao day, day chi chi

Usage ▶ substitute for liquorice

Parts Used ▶ root

Distribution ▶ tropical aera, native in Florida

Note ▶ The seeds contain abrin, a toxalbumin, an exceedingly poisonous substance.

Ayensu 1978; Erhardt et al. 2002; Uphof 1968

**Acanthopanax (Decne. et Planch.) Miq. -
Araliaceae** **Acanthopanax aculeatum Seem.**

▶ *Acanthopanax trifoliatum* (L.) Voss.

 **Acanthopanax trifoliatum (L.) Voss.**

Synonyms ▶ *Acanthopanax aculeatum* Seem.

Common Names ▶ Dreiblättrige Fingeraralie

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ India: NE hills, Assam

Arora/Pandey 1996; WHO Manila 1990

**Acer L. - Maple -
Aceraceae** **Acer macrophyllum Pursh**

Common Names ▶ broad-leaved maple, big leaf maple, large leaf maple, Oregon maple, Pacific maple; *German*: Großblättriger Ahorn, Oregon Ahorn

Usage ▶ spic (rarely)

Parts Used ▶ cambium

Distribution ▶ SE Alaska, USA: Washington, Oregon, California, also cultivated

Note ▶ Native Americans used the maple cambium to savor meat.

Cheers 1998; Erhardt et al. 2002; Hanelt 2001; Pirc 1994; Seidemann 1993c; Small 1997; Uphof 1968; Wiersema/León 1999

 **Acetosa pratensis Mill.**

▶ *Rumex acetosa* L.

 **Acetosa scutata (L.) Mill.**

▶ *Rumex scutatus* L.

 **Achasma walang (Blume) Val.**

▶ *Etlingera walang* (Blume) R.M. Smith

**Achillea L. - Yarrow -
Asteraceae (Compositae)** **Achillae ageratum L.**

Synonyms ▶ *Achillae decolorans* Schrad.

Common Names ▶ garden mace, sweet nancy, sweet yarrow; *German*: Garten-Schafgarbe, Süße Schafgarbe

Usage ▶ spice

Parts Used ▶ leaf, herb

Distribution ▶ W Europe: Iberia, France, England, Croatia?

Davidson 1999; Erhardt et al. 2002; Schultze-Motel 1986; Uphof 1968

Achillea atrata L.

Synonyms ▶ *Ptarmica atrata* (L.) DC.

Common Names ▶ black-edged yarrow; *French*: achillée noire; *German*: Schwarze Schafgarbe, Schwarzrandige Schafgarbe

Usage ▶ spice; **product** of Iva liqueurs

Parts Used ▶ herb

Distribution ▶ Europe: Alpine regions of Germany, Austria, France, Italy, Switzerland, Austria, Slovenia

Aichele/Schwegler 4, 1995; Berger 4, 1954; Fleischhauer 2003; Hager 4, 1992; Schönfelder 2001; Uphof 1968

Achillea clavенаe L.

Synonyms ▶ *Ptarmica clavенаe* DC.

Common Names ▶ bitter yarrow; *French*: achillée amère; *German*: Bittere Schafgarbe, Steinraute, Weißer Speik; *Italian*: essenzio ombrellifera

Usage ▶ spice

Parts Used ▶ leaf

Distribution ▶ Alpine and subalpine regions of S, SE Europe: lower Austria, Croatia, Dalmatia, Bulgaria, Italian Peninsula.

Aichele/Schwegler 4, 1995; Erhardt et al. 2002; Hager 4, 1992; Uphof 1968; Wiersema/León 1999

Achillae decolorans Schrad.

▶ *Achillae ageratum* L.

Achillea erba-rotta All. ssp. *moschata* (Wulf.) I. Richardson

Synonyms ▶ *Achillae moschata* Wulf.

Common Names ▶ alpine yarrow, musk milfoil, musk yarrow; *French*: achillée, genepi blanc; *German*: Bisamkraut, Feldgarbe, Genepikraut, Ivakraut, Moschusschafgarbe; *Italian*: genepi

Usage ▶ spice, flavoring

Parts Used ▶ leaf, herb

Distribution ▶ S, C Europe

Abraham/Seeber 1995; Aichele/Schwegler 4, 1995; Berger 4, 1954; Hager 4, 1992; Hanelt 2001; Hiller/Melzig 1999; Hoppe 1949; Schönfelder 2001; Uphof 1968; Wiersema/León 1999

Achillea millefolium L.

Common Names ▶ common yarrow, fragrant yarrow, milfoil, nose bleed, Western yarrow, woundwort, yarrow (herb); *Brazil (Portuguese)*: milfolhas; *Chinese*: yang shi cao; *French*: achillée millefeuille, herbe aux charpentiers, millefeuille; *German*: Achilleskraut, Gemeine Scharfgarbe, Gewöhnliche Schafgarbe, Wiesen-Schafgarbe, Tausendblatt; *India*: biranjaisif, gandama, rooamari, rojmari; *Italian*: achillea millefoglio; *Japanese*: nokogiro-sô-zoku; *Korean*: choniphoppul; *Portuguese*: milefólia; *Russian*: tysjatschelistik obyknovennyj; *Spanish*: cientoenrama, milenrama, milhojas, flor de pluma

Usage ▶ spice; flavoring

Parts Used ▶ fresh leaf

Distribution ▶ Europe, temperate Asia, India, Canada, USA, Mexico, Meso-America, Australia, New Zealand; widely native elsewhere

Agarwal 1990; Aichele/Schwegler 4, 1995; Anon. 1998; Berger 4, 1952; Bilgri/Adam 2000; Bremness 2001; Cheers 1998; Coiciu/Racz (no year); Czygan 1994; Dudtschenko et al. 1989; Erichsen-Brown 1989; Hager 4, 1992; Haggag et al. 1975; Hanelt 2001; Heeger 1956; Hiller/Melzig 1999; Hoffmann et al. 1992; Hofmann/Fritz 1995; Hohmann et al. 2001; Hoppe 1949; Miller/Chow 1954; Newall et al. 1996; Orth et al. 1994, 1999; Pschyrembel 1998; Roth/Kormann 1997; Schaller 1995; Schönfelder 2001; Schultze-Motel 1986; Sharma 2003; Shawl et al. 2002; Suleiman et al. 1996; Täufel et al. 1993; Turova et al. 1987; Ubillos 1989; Uphof 1968; Villamar et al. 1994; Wiersema/León 1999; Wyk et al. 2004; Zirvi/Ikram 1975

Achillea moschata Wulf.

▶ *Achillae erba-rotta* All. ssp. *moschata* (Wulf.) I. Richardson

A

 **Achillea nobilis L.**

Common Names ▶ noble milfoil, noble yarrow; *German:* Edel-Schafgarbe

Usage ▶ spice (sporadically), flavoring

Parts Used ▶ leaf

Distribution ▶ Europe, Turkey, Caucasus, frequently cultivated

Aichele/Schwegler 4, 1995; Erhardt 2000; Hager 4, 1992; Hoppe 1949; Schultze-Motel 1986

**Achyranthes L. -
Amaranthaceae** **Achyranthes aspera L.**

Common Names ▶ pricklychaff flower, rough chaff tree, Washerman's plant; *Chinese:* dao kou cao; *German:* Rauhklette; *India:* agava, apamarg, apamargamu, apang; *Pilipino:* hangod, hangor, higad-higad, nimikitan; *Vietnamese:* co nha ngu, nguru tat nam

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ tropical area, India, Pakistan, native in Spain

Note ▶ Used by the Shari Chad races (Africa) for making salt over the plant.

Dastur 1954; v. Koenen 1996; Uphof 1968

**Achyrocline (Less.) DC. -
Asteraceae (Compositae)** **Achyrocline satureioides DC.**

Common Names ▶ *Brazil:* alecrim da parede, macela, marcala do campo

Usage ▶ flavoring for bitter spirits

Parts Used ▶ flower

Distribution ▶ S America: Brazil, Uruguay

Hanelt 2001; Schultze-Motel 1986

**Acinos Mill. -
Lamiaceae (Labiatae)** **Acinos alpinus (L.) Moench.**

Common Names ▶ alpine calamint; *French:* calament des Alpes; *German:* Alpen-Steinquendel

Usage ▶ spice (rarely)

Parts Used ▶ herb

Distribution ▶ European Alps, Balkans, Turkey, NW Africa

Erhardt et al. 2002; Fleischhauer 2003; Schnelle 1999; Small 1997

 **Acinos arvensis (Lam.) Dandy**

Synonyms ▶ *Acinos thymoides* Moench; *Calaminthe acinos* (Clairv.) Man., *Calamintha arvensis* Lam., *Satureja acinos* (L.) Scheele


Common Names ▶ basil thyme, mother of thyme, spring savory; *French:* basilic sauvage; *German:* Feldquendel, Steinquendel; *Russian:* duschewka, stschebruschka

Usage ▶ spice (sporadically), flavoring

Parts Used ▶ herb

Distribution ▶ Europe, Turkey, Caucasus, N Iran, Asia introduced in N America

Aichele/Schwegler 4, 1995; Cheers 1998; Erhardt et al. 2002; Fleischhauer 2003; Small 1997; Tucker 1986; Uphof 1968

 **Acinos thymoides Moench**

▶ *Acinos arvensis* (Lam.) Dandy

 **Acmella oleracea (L.) R.K. Jansen**

▶ *Spilanthes oleracea* L.

Acorus L. - Sweet flag - Acoraceae

Acorus asiaticus Nakai

➤ *Acorus calamus* L.

Acorus calamus L.

Synonyms ▶ *Acorus asiaticus* Nakai; *Acorus terrestris* Spreng.

Common Names ▶ calamus, gladdon, lag root, myrtle flag, myrtle grass, sweet flag, sweet myrtle; *Arabic*: vash, vaj; *Chinese*: shi chang pu; *Dutch*: kalmoeswortel; *French*: acore calame, acore odorant, acore vrai, jonc odorant, lis de marais; *German*: Kalmus, Deutscher Ingwer; *Hindi*: bacc, baccha, gorbach; *India*: buch; *Italian*: calamo aromatico; *Japanese*: shôbu; *Malaysian*: deringu, jeringan, jeringau; *Russian*: air, air trostnikowyj, irnyj koren', gair, jawer, tatarskoe seľe, sabel'nik, kalmus; *Sanskrit*: vaca ugragandha; *Spanish*: acoro, acoro verdadero, calamís, cálamo arómico

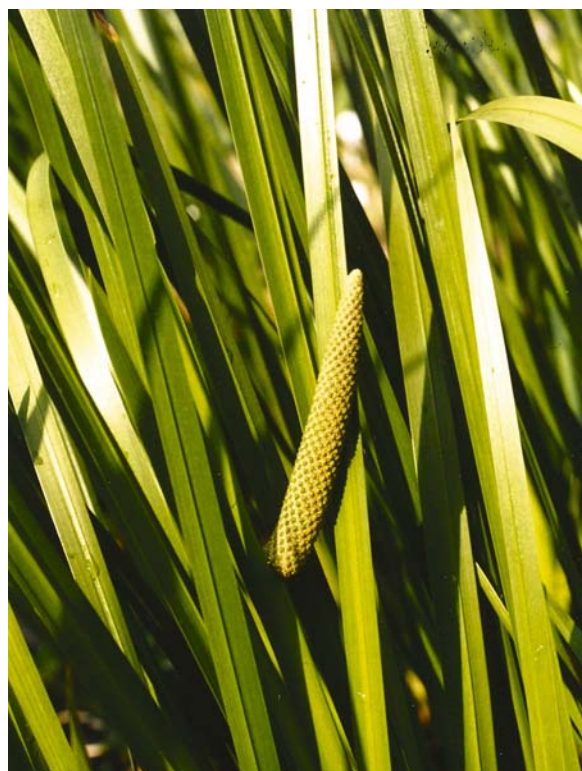
Usage ▶ spice; **product**: essential oil (calamus oil)

Parts Used ▶ rhizome

Distribution ▶ SE Asia, India, Himalaya, Sri Lanka to N China, Siberia, Japan, Malaysia; introduced to E, C Europe, Canada, USA; native elsewhere

Note ▶ The essential oil of the American tribe *Acorus calamus* L. var. *americanus* (Raf.) Wulff. are free of β -asarone. The asiatic tribe has a high β -asarone content.

Agarwal 1990; Aichele/Schwegler 5, 1996; Alberts/Muller 2000; Bilgri/Adam 2000; Bois 1934; Bournot 1968; Cheers 1998; Coiciu/Racz (no year); Dastur 1954; Dudtschenko et al. 1989; Erhardt et al. 2002; Erichsen-Brown 1989; Fleischhauer 2003; Hager 3, 1992; Hanelt 2001; Heeger 1956; Hepper 1992; Hiller/Melzig 1999; Hohmann et al. 2001; Hoppe 1949; Keller/Stahl 1982, 1993; Koschtschejew 1990; Mazza 1985; Melchior/Kastner 1974; Motley 1994; Newall et al. 1996; Opdyke 1977; Özcan et al. 2002; Pochljobkin 1974, 1977; Pschyrembel 1998; Raina et al. 2003; Schneider/Jurenitsch 1992; Schönfelder 2001; Seidemann 1993c; Seidemann/Siebert 1987; Sharma 2003; Shiva et al. 2002; Siewek 1990; Small 1997; Staesche 1972; Stahl/Keller 1981; Täufel et al. 1993; Turova et al. 1987; Uphof 1968; Wiersema/León 1999; Wüstenfeld/Haensel 1964; Wyk et al. 2004; Zeven/de Wet 1982



 *Acorus calamus*, flowering

Acorus gramineus Sol.

Synonyms ▶ *Acorus humilis* Salisb.

Common Names ▶ Chinese sweet grass, Japanese sweet flag, grass leaf sweet flag; *Chinese*: shi chang pu; *French*: acore à feuilles de graminée; *German*: Aniskalmus, Japanischer Kalmus, Lakritze-Kalmus; *India*: pahari buch; *Japanese*: sekisho; *Korean*: sokchangpho; *Vietnamese*: lay yam, xinh pau chu

Usage ▶ spice

Parts Used ▶ rhizome

Distribution ▶ E Asia: India, China, Thailand, Japan, Korea, Malaysia

Cheers 1998; Erhardt et al. 2002; Hanelt 2001; Leung 1991; Roth/Kormann 1997; Uphof 1968; WHO 1990; Wiersema/León 1999

Acorus humilis Salisb.

➤ *Acorus gramineus* Sol.

A

 **Acorus terrestris** Spreng

➤ *Acorus calamus* L.

**Acroclidium Nees et Martius -
Lauraceae** **Acroclidium camara** Schomb.

Common Names ▶ Akawai nutmeg, Guayana nutmeg;
French: bois amer; *German*: Guayana Muskatnuss;
Spanish: cajueiro, camarão, cambará de cheiro

Usage ▶ spice (locally)

Parts Used ▶ seed

Distribution ▶ Guyana

Hoppe 3, 1987

 **Acroclidium puchury-major** Mez

➤ *Ocotea puchury-major* Mart.

**Acronychia Forster et G. Forster -
Rutaceae** **Acronychia laurifolia** Bl.

➤ *Acronychia pedunculata* (L.) Miq.

 **Acronychia odorata** (Lour.) Baill.

Synonyms ▶ *Cyminosma odorata* DC., *Jambolifera odorata* Lour.

Usage ▶ condiment (in Malaysia)

Parts Used ▶ leaf

Distribution ▶ tropical Asia, especially Malaysia

Uphof 1968

 **Acronychia pedunculata** (L.) Miq.

Synonyms ▶ *Acronychia laurifolia* Bl., *Cyminosma resinosa* DC., *Jambolifera resinosa* Lour.

Usage ▶ condiment; **product**: essential oil

Parts Used ▶ tender leaves

Distribution ▶ India: W, E Ghats, NE Himalayan hills

Arora/Pandey 1996; Hager 4, 1992; Oyen/Dung 1999

**Adasonia L. - Monkeybread, Baobab -
Bombacaceae** **Adasonia baobab** L.

➤ *Adasonia digitata* L.

 **Adasonia digitata** L.

Synonyms ▶ *Adasonia baobab* L.


Common Names ▶ monkey bread tree, cork tree, (common) baobab, African calabash, Judas's bag; *Arabic*: hijid; *French*: baobab, calebassier du Sénégal, pain de singe *German*: Afrikanischer Affenbrotbaum, Affenbrotbaum, Baobab; *India*: gorakh amlī, gorakh chinch, magimavu, kalp; *Italian*: baobab, calabaceira; *Portuguese*: baobab; *Russian*: baobab; *Spanish*: baobab; *Swahili*: mbuyu

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ tropical Africa, Madagascar, Arabian Peninsula; widely native in the Tropics

Aké Assi/Guinko 1991; Bendel 2002; Cheers 1998; Chevalier 1906; Dastur 1954; Hanelt 2001; Ijomah et al. 2000; v. Koenen 1996; Kremer/Jaeggi 1995; Lewington 1990; Schenck/Naundorf 1966; Schultze-Motel 1986; Seidemann 1993c; Täufel et al. 1993; Toury et al. 1957; Uphof 1968; Wickens 1979, 1982; Wiersoma/León 1999

Adenandra Willd. - Rutaceae **Adenandra fragrans** (Sims) Roem. et Schult.

Synonyms ▶ *Diosma fragrans* Sims

Common Names ▶ breath of heaven; *German*: Himmelsduft; *S Africa*: anysboegoe, anysbuchu, klipsissie, sissie

Usage ▶ flavoring

Parts Used ▶ leaf

Distribution ▶ S Africa, especially Cape region

Erhardt et al. 2002; Hanelt 2001; Uphof 1968; Usher 1967

Adenantha tetraptera Schum. et Thonn.

▶ *Tetrapleura tetraptera* (Schum. et Thonn.) Taub.

Adenocalymna Mart. ex Meissner - Bignonaceae

Adenocalymna alliaceum Miers

Common Names ▶ *Spanish*: cipó d'algo

Usage ▶ spice

Parts Used ▶ herb

Distribution ▶ S America

Hanelt 2001; Terra 1966

Adiantum L. - Maidenhair Fern - Adiantaceae (Pteridaceae)

Adiantum nigrum L.

Common Names ▶ black spleenwort; *Bolivia*: quilquina; *French*: capillaire boire, doradille noire; *German*: Schwarzer Frauenhaarfarn, Schwarzstielliger Krullfarn; *Russian*: adiant(um) tschjornaja

Usage ▶ spice for sauces (Llajhua, Sarsa)

Parts Used ▶ leaf

Distribution ▶ S America: Andes; native in SE Asia

Aegle Corrêa - Rutaceae

Aegle marmelos (L.) Corrêa ex Roxb.

Synonyms ▶ *Crataeva marmelos* L., *Crataeva religiosa* Ainslie

Common Names ▶ bael, bel, Bengal quince, golden apple, Indian bael; *Arabic*: shul; *Chinese*: yiu-tu-chih; *Dutch*: slijim appelboom; *French*: bel Indien, oranger du Malabar; *German*: Baelbaum, Belbaum, Bengalische Quitte; *India*: beli, belethi, bilva, marmel, siriphal; *Javanese*: maja, modjo; *Portuguese*: marmelos; *Spanish*: bela, milv; *Thai*: ma tum

Usage ▶ flavoring

Parts Used ▶ young leaf and shoot

Distribution ▶ India, Indochina, Myanmar, cultivated in Malaysia

Arora/Pandey 1996; Berger 3, 1952; Blancke 2000; Bose 1985; Daniel/Rajendran 1996; Dastul 1954; Davidson 1999; Hanelt 2001; Hiller/Melzig 1999; Hoppe 1949; Kumar 2003; Schultze-Motel 1986; Sharma 2003; Täufel et al. 1993; Uphof 1968; Verheij/Coronel 1991; Wiersoma/León 1999; Zeven/de Wet 1982

Aegopodium L. - Apiaceae (Umbelliferae)

Aegopodium podagraria L.

Common Names ▶ ashweed, bishop's weed, dwarf elder, goutweed, ground elder, herb Gerard; *French*: egopode, podagraire; *German*: Ackerholler; Geißfuß, Gewöhnlicher Giersch, Giersch, Podagra; *Italian*: castalda, girardina silvestre; *Russian*: snyt'obyknovennija

Usage ▶ pot-herb

Parts Used ▶ herb

Distribution ▶ temperate Asia, Europe, Turkey, Caucasus to C Asia, W Siberia, native elsewhere

Note ▶ The fruits used as falsification of *Carum carvi*-fruits.

Aichele/Schwegler 3, 1995; Bilgri/Adam 2000; Cheers 1998; Davidson 1999; Dudtschenko et al. 1989; Erhardt et al. 2002; Fleischauer 2003; Hager 4, 1992; Hanelt 200; Hiller/Melzig 1999; Hoppe 1949;

Melchior/Kastner 1974; Schönfelder 2001; Schultze-Motel 1986; Staesche 1972; Täufel et al. 1993; Uphof 1968; Wiersoma/León 1999

Aeollanthus Mart. ex Spreng. - Lamiaceae (Labiatae)

Aeollanthus buettneri Gürke

➤ *Aeollanthus pubescens* Benth.

Aeollanthus heliotropoides Oliv.

Synonyms ▶ *Aeollanthus suaveolens* Mart. ex Spreng.

Common Names ▶ *Portuguese*: chegahinka, macassa

Usage ▶ pot-herb (locally), for flavoring soups

Parts Used ▶ leaf

Distribution ▶ tropical Africa: Nigeria, Cameroon

Burkill 3, 1995; Hanelt 2001; Irvine 1948; Schultze-Motel 1986; Uphof 1968

Aeollanthus pubescens Benth.

Synonyms ▶ *Aeollanthus buettneri* Gürke

Usage ▶ spice, analog basil

Parts Used ▶ leaf, flower (local)

Distribution ▶ tropical Africa: Nigeria, Sierra Leone, from Mali to Cameroon, Central African Republic

Burkill 3, 1995; Dalziel 1957; Hanelt 2001; Schultze-Motel 1986; Sounhoulou et al. 2002; Uphof 1968

Aeollanthus suaveolens Mart. ex Spreng.

➤ *Aeollanthus heliotropoides* Oliv.

Aethusa mutellina St. Lag.

➤ *Ligusticum mutellina* (L.) Crantz

Aframomum K. Schum. - Zingiberaceae

Aframomum alboviolaceum (Ridley) K. Schum.

Synonyms ▶ *Aframomum glatifolium* K. Schum., *Amomum alboviolaceum* Ridley

Common Names ▶ Cameroon cardamom; *Cameroon*: odjom; *German*: Kamerun-Kardamom, Sierra Leone-Kardamom

Usage ▶ spice

Parts Used ▶ leaf

Distribution ▶ tropical Africa: Sierra Leone, Cameroon also cultivated

Berger 3, 1952; Berger 1964/65; Duke et al. 2003; Hanelt 2001

Aframomum angustifolium (Sonn.) K. Schum.

Synonyms ▶ *Aframomum sanguineum* (K. Schum.) K. Schum., *Amomum angustifolium* Sonn., *Amomum sanguineum* K. Schum.

Common Names ▶ Madagascar cardamom, dark Crimson cardamom, wild cardamom; *French*: cardamome de Madagascar; *German*: Blutroter Kardamom, Madagascar-Kardamom

Usage ▶ spice, the seeds are used like black pepper

Parts Used ▶ seed

Distribution ▶ E Africa, Madagascar, Zanzibar, Mauritius, Pemba and the Seychelles; cultivated on the Pemba Islands

Note ▶ In Near East and Egypt as addition to coffee.

Berger 3, 1952; 1964/65; Bois 1934; Coomes et al. 1955; Hager 5, 1993; Hanelt 2001; Hari et al. 1994; Melchior/Kastner 1974; Overdieck 1992; Peter 2001; Pruthi 1976; Schultze-Motel 1986; Seidemann 1993c; Siewek 1990; Täufel et al. 1993; Teuscher 2003; Uphof 1968

Aframomum cororima (Braun) P.C.M. Jansen

➤ *Aframomum korarima* (Peireira) Engl.

 **Aframomum daniellii** (Hook.f.) K. Schum.

Synonyms ▶ *Amomum danielli* J.D. Hook.

Common Names ▶ bastard melegueta, Cameroon cardamom; *French*: cardamome de Cameroun; *German*: Bastard-Meleguetapfeffer; Kamerun-Kardamom

Usage ▶ spice

Parts Used ▶ seed

Distribution ▶ tropical W Africa: Cameroon, also cultivated

Adegoke/Shura 1994; Berger 1964/65; Bois 1934; Hager 5, 1993; Hanelt 2001; Schultze-Motel 1986; Seidemann 1993c; Siewek 1990; Täufel et al. 1993; Teuscher 2003

 **Aframomum exscapum** (Sims) Hepper

Common Names ▶ alligator pepper, grains of paradise; *German*: Alligatorpfeffer, Stengelloser Alligatorpfeffer, Paradieskörner

Usage ▶ spice

Parts Used ▶ fruit

Distribution ▶ tropical W Africa

Duke et al. 2003; Seidemann 1993c; Täufel et al. 1993; Teuscher 2003

 **Aframomum hanburyi** K. Schum.

Synonyms ▶ *Amomum clusii* Hanb.

Common Names ▶ Cameroon cardamom; *French*: cardamome de Cameroun; *German*: Kamerun-Kardamom, Bastard Malagetta

Usage ▶ spice, condiment

Parts Used ▶ seed

Distribution ▶ tropical W Africa: Cameroon

Berger 1964/65; Bois 1934; Melchior/Kastner 1974; Overdieck 1992; Peter 2001; Pruthi 1976; Seidemann 1993c; Teuscher 2003; Uphof 1968; Zollo et al. 2002

 **Aframomum korarima** Pereira ex Engl.

Synonyms ▶ *Aframomum cororima* (Braun) P.C.M. Jansen, *Amomum korarima* Pereira;

Common Names ▶ Ethiopian cardamom, korarima carda-

mom, false cardamom, nutmeg cardamom, Guragi spice; *Arabic*: habhal hobashi, heil; *French*: cardamome d'Ethiopie, poivre d'Ethiopie; *German*: Abessinischer Kardamom, Ethiopischer Kardamom, Guragi-Gewürz, Korarima-Kardamom

Usage ▶ spice, e.g. flavoring for coffee (or tea), bread, butter (Kefa Province)

Parts Used ▶ seed

Distribution ▶ Ethiopia, Somalia; also cultivated

Note ▶ In Arabia they serve the flavoring of coffee. The aroma is nutmeg-like.

Berger 3, 1952; Berger 1964/65; Biftu 1981; Hager 5, 1993; Hanelt 2001; Jansen 1981; Melchior/Kastner 1974; Norman 1990, 1991; Overdieck 1992; Peter 2001; Pruthi 1976; Schultze-Motel 1986; Seidemann 1993c; Siewek 1990; Täufel et al. 1993; Teuscher 2003; Zeven/de Wet 1982

 **Aframomum latifolium** K. Schum.

▶ *Aframomum alboviolaceum* (Ridley) K. Schum.

 **Aframomum letestuanum** Gagnep.

Usage ▶ spice

Parts Used ▶ seed

Distribution ▶ tropical Africa: Cameroon, Congo; also cultivated

Hanelt 2001; Poulsen/Lock 1999; Schultze-Motel 1986; Seidemann 1993c; Täufel et al. 1993; Teuscher 2003; Zollo et al. 2002

 **Aframomum macrospermum** (Smith) Burkill

Common Names ▶ Guinea cardamom; *French*: cardamome de Guinea; *German*: Großsamiger Kardamom, Guinea-Kardamom

Usage ▶ spice (locally)

Parts Used ▶ fruit

Distribution ▶ Guinea

Berger 1964/65

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 **Aframomum malum** Schum.

Common Names ▶ East African cardamom; *German*: Ostafrikanischer Kardamom

Usage ▶ condiment

Parts Used ▶ seed

Distribution ▶ E and tropical Africa

Uphof 1968

 **Aframomum melegueta** K. Schum.

Synonyms ▶ *Aframomum meleguetella* K. Schum.; *Amomum melegueta* Rosc.

Common Names ▶ Guinea pepper, Guinea grains, alligator pepper, grains of paradise, melegueta pepper; *Chinese*: hsi sha tou; *French*: graine de paradis, graine de maniguette, melegueta, poivre d'Afrique, poivre de Guinée, semance de paradis; *German*: Melegueta-Pfeffer, Paradieskörner, Grana paradisi, Alligatorpfeffer, Guineapfeffer, Piper Melegueta; *India*: malgoat; *Italian*: grani di melegueta, grani paradisi, mani guetta; *Russian*: amomum, ili malagetta, rauskoe serno, mallawetskij, gwinejskij perez; *Slovakian*: guinejské korenje; *Spanish*: granos de paraíso, malagueta, maniguette

Usage ▶ spice, e.g. admixture for "Ras el Hanout"

Parts Used ▶ seed

Distribution ▶ W tropical Africa; also cultivated from Guinea, Sierra Leone through Ivory Coast, Ghana, Benin, Nigeria, Cameroon, Gabon to Angola

Note ▶ In 1876 the plant was tried in the Singapore Botanic Gardens, but seems not to have succeeded.

Adegoke et al. 2003; Aedo et al. 2001; Berger 3, 1952; Berger 1964/65; Blancke 2000; Bois 1934; Boisvert/Huber 2000; Burkill 5, 2000; Craze 2002; Davidson 1999; Duke et al. 2003; Erhardt et al. 2002; Govindarajan et al. 1982; Griebel 1943; Hanelt 2001; v.Harten 1970; Hoppe 1949; Lock et al. 1977; Melchior/Kastner 1974; Norman 1990, 1991; Overdieck 1992; Peter 2001; Pochljobkin 1974, 1977; Pruthi 1976; Schenck/Nauendorf 1966; Schultze-Motel 1986; Seidemann 1993c; Small 1997; Staesche 1972; Täufel et al. 1993; Teuscher 2003; Uphof 1968; Wiersoma/León 1999; Wüstenfeld/Haensel 1964; Zeven/de Wet 1982

 **Aframomum meleguetella** K. Schum.

▶ *Aframomum melegueta* K. Schum.



■ **Aframomum melegueta**: a flowering b fruit and seeds

 **Aframomum pruinatum** Gagn.

Common Names ▶ Cameroon cardamom; *German*: Be-reifter Kardamom, Kamerun-Kardamom

Usage ▶ spice (rarely)

Parts Used ▶ seed

Distribution ▶ W Africa; Cameroon

Zollo et al. 2002

 **Aframomum sanguineum** (*K. Schum.*) *K. Schum.*

➤ *Aframomum angustifolium* (*Sonn.*) *K. Schum.*

 **Aframomum sceptrum** (*Oliv. et Hanb.*) *K. Schum.*

Common Names ▶ black amomum, Guinea grains; *German*: Schwarzer Kardamom, Guinea-Körner


Usage ▶ spice (essential oil), flavoring for food; **product**: essential oil

Parts Used ▶ leaf

Distribution ▶ W Africa

Note ▶ The seeds are camphoraceous in taste.

Burkill 5, 2000; Dalziel 1937; Duke et al. 2003

 **Aframomum subsericum** (*Oliv. et Hanb.*) *K. Schum.*

Common Names ▶ alligator pepper; *German*: Alligatorpfeffer

Usage ▶ condiment

Parts Used ▶ seed

Distribution ▶ W Africa

Note ▶ A smell of lemon.

Burkill 5, 2000

Afrostryax Perkins et Gilg - Styracaceae (Huaceae)

 **Afrostryax kamerunensis** *Perkins et Gilg*

Common Names ▶ Cameroon garlic tree; *German*: Kamerun-Knoblauchbaum

Usage ▶ local as garlic-like condiment, special of sauces

Parts Used ▶ seed, bark

Distribution ▶ tropical Africa: Cameroon, Gabon

Note ▶ Bark and seeds have a garlic taste.

Burkill 5, 2000; Neuwinger 1999; Walker 1952

 **Afrostryax lepidophyllus** *Mildbraet*

Common Names ▶ garlic bark (tree); *German*: Schuppenblättriger Knoblauchbaum


Usage ▶ spice, condiment

Parts Used ▶ bark, seed

Distribution ▶ tropical Africa: Cameroon, Congo, the Central Africa Republic, Zaire

Note ▶ Bark and seeds have a garlic taste.

Burkill 5, 2000; Milbroad 1913; Neuwinger 1998; Sandberg/Cronlund 1982

 **Agaricus edodes** *Berk.*

➤ *Lentinus edodes* (*Berk.*) *Sing.*

Agastache Gronov. - Mexican Hyssop - Lamiaceae (Labiatae)

 **Agastache anisata** *hort.*

➤ *Agastache foeniculum* (*Pursh*) *Kuntze*

 **Agastache foeniculum** (*Pursh*) *Kuntze*

Synonyms ▶ *Agastache anisata* *hort.*, *Hyssopus anisatus* *Nutt.*, *Stachys foeniculum* *Pursh*

Common Names ▶ anise hyssop, anise mint, blue giant hyssop, fragrant giant hyssop, licorice mint; *French*: hysope anisée; *German*: Duftnessel, Anisysop

Usage ▶ spice, e.g. for cakes and sweets; **product**: essential oil

Parts Used ▶ leaf

Distribution ▶ N America: S Canada to the NC states of USA, Rocky Mountains, former Soviet Union (Crimea, Moldavia), S Finland

Cheers 1998; Erhardt et al. 2002; Hanelt 2001; Mazza/Kiehn 1992; Mikus et al. 1997; Nykänen et al. 1989; Schultze-Motel 1986; Small 1997; Svoboda 1995; Tucker 1986; Wiersoma/León 1999; Wilson et al. 1992

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 **Agastache mexicana** (Kunth) Lint. et Epling

Synonyms ▶ *Dracocephalum mexicanum* H.B.K., *Cedronella mexicana* (Kunth) Benth.

Common Names ▶ Mexican giant hyssop, lemon hyssop; *Chinese*: huo xiang; *French*: agastache; *German*: Mexikanische Duftnessel, Mexikanischer or Lemon Ysop; *Mexico*: toronjil; *Spanish*: totoji

Usage ▶ spice, flavoring

Parts Used ▶ leaf

Distribution ▶ Mexico; cultivated in N America

Cheers 1998; Erhardt et al. 2002; Hanelt 2001; Mikus/Schaser 1995; Ochoa/Alonso 1996; Omidbaigi/Sefidkon 2003; Schultze-Motel 1986; Seidemann 1993c; Small 1997; Svoboda et al. 1995; Teuscher 2003; Tucker 1986

 **Agastache rugosa** (Fischer et C.A.Meyer) Kuntze

Synonyms ▶ *Cedronella japonica* Hassk., *Elsholtzia monostachys* H. Lévl. et Van., *Lophanthus rugosus* Fischer et C.A. Meyer

Common Names ▶ Chinese giant hyssop, Korean mint, wrinkled giant hyssop; *Chinese*: huo xiang; *German*: Koreanische Minze, Minz-Agastache, Runzlicher Ysop; *Japanese*: kawa-midori; *Korean*: bangah, paechohyang, pangaphul

Usage ▶ spice; **product**: essential oil (perfumery)

Parts Used ▶ leaf

Distribution ▶ E Siberia, Russian Far E, Korea, China, Japan, N Vietnam; introduced to N America after World War II, also cultivated in China

Note ▶ The essential oil contains more than 90% methyl chavicol.


Ahn/Yang 1991; Boo-Yong Lee et al. 2001; Charles et al. 1991; Cheers 1998; Dung et al. 1996; Hanelt 2001; Hee-Juhn Park et al. 2000; Hiller/Melzig 1999; Kim et al. 2001; Moon Jung Lee et al. 2001; NICPBP 1987; Schultze-Motel 1986; Seidemann 1993c; Small 1997; Svoboda et al. 1995; Tae Hwan Kim et al. 2001; Teuscher 2003; Tucker 1986; Weyerstahl et al. 1992; Wiersoma/León 1999; Wilson et al. 1992

 **Agathophyllum aromaticum** (Sonn.) Willd.

▶ *Ravensaria aromatica* Sonn.

 **Agathosma betulina** Pillans

▶ *Barosma betulina* (Bergius) Bartl. et Wendl.

 **Agathosma crenulata** (L.) Pillans

▶ *Barosma crenulata* (L.)

 **Agathosma serratifolia** (Curtis) A.D. Spreeth

▶ *Barosma serratifolia* (Curtis) Will.

**Aglaia Lour. -
Meliaceae**
 **Aglaia affinis** Merr.

▶ *Aglaia odoratissima* Blume

 **Aglaia heterophylla** Merr.

▶ *Aglaia odoratissima* Blume

 **Aglaia odorata** Lour.

▶ *Aglaia odoratissima* Blume

 **Aglaia odoratissima** Blume

Synonyms ▶ *Aglaia affinis* Merr., *Aglaia heterophylla* Merr., *Aglaie odorata* Lour.

Common Names ▶ mock lime, orchid tree; *Chinese*: mi zan lau, mi sui lan, san yeh lan; *German*: Duft-Glanzbaum; *Indonesian*: pancal kidang, tanglu; *Japanese*: ju-ran, muran; *Malaysian*: chulan, kasa, telur belangkas, merlimau; *Thai*: prayong paa, sangkhriat

Usage ▶ flavoring of tea; **product**: essential oil

Parts Used ▶ flower

Distribution ▶ India, Indonesia: Sumatra, Java, Philippines, China

Note ▶ On Java a dwarf form (var. *microphylla* DC.) occasionally cultivated in gardens.

Artander 1960; Berger 2, 1950; Burkill 1966; Hanelt 2001; Heyne 1953; Corner 1988; Oyen/Dung 1999; Storrs 1997; Uphof 1968

Agrimonia L. - Agrimony - Rosaceae

 **Agrimonia eupatoria L. ssp.odorata (Gouan)**
Hook.

Synonyms ▶ *Agrimonia procera* Wallr.

Common Names ▶ odour agrimony, cock ley bur, liverwort; *Arabic*: ghafith, terfaq; *French*: aigremoine gariot; *German*: Duft-Odermennig, Großer Odermennig; *Italian*: agrimonia; *Spanish*: agrimonia

Usage ▶ flavoring (rarely)

Parts Used ▶ leaf, herb

Distribution ▶ Germany to W Russia, rarely cultivated

Bremness 2001; Hanelt 2002; Heeger 1956; Hoppe 1949; Schönfelder 2001; Schultze-Motel 1986; Small 1997; Uphof 1968; Wyk et al. 2004

 **Agrimonia procera Wallr.**

▶ *Agrimonia eupatoria L. ssp. odorata (Gouan) Hook.*

Ajuga L. - Bugle - Lamiaceae (Labiatae)

 **Ajuga macrosperma Wall.**

Common Names ▶ bugle; *French*: petite consoule; *German*: Großsamiger Günzel; *Russian*: shibutschka dubhiza

Usage ▶ pot-herb

Parts Used ▶ herb

Distribution ▶ India: temperate and tropical Himalaya

Arora/Pandey 1996; Hager 4, 1992; Shen, X.Y. et al. 1993

 **Ajuga reptans L.**

Common Names ▶ creeped bugle; *French*: bugle rampant; *German*: Kriechender Günzel; *Russian*: shibutschka polsutschij

Usage ▶ pot-herb

Parts Used ▶ herb, leaf

Distribution ▶ Europe, Turkey, Caucasus, N Iran, Algeria, Tunisia; nat in N America

Erhardt et al. 2002; Fleischhauer 2003; Loch 1993

 **Alarai pinnatifida Harvey**

▶ *Undaria pinnatifida (W.H. Harvey) W.F.R. Suringar*

Alchemilla L. - Lady's Mantle - Rosaceae

 **Alchemilla conjuncta Bab.**

Common Names ▶ silver lady's mantle; *German*: Silber-Frauenmantel, Verwachsener Frauenmantel

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ Europe, France, Switzerland, SW Alps; native in England

Erhardt et al. 2002; Fleischhauer 2003

 **Alchemilla fissa Günther et Schummel**

Common Names ▶ *German*: Spaltblättriger Frauenmantel, Zerschlitzer Frauenmantel

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ Europe: Spain, France, C Europe, Poland, Alps, Sudetenland

Erhardt et al. 2002; Fleischhauer 2003

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 **Alchemilla splendens** *Christ ex Favrat*

Common Names ▶ glittering lady's mantle; *German:* Schimmernder Frauenmantel

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ Europe: France, Switzerland, Alps, Jura

Erhardt et al. 2002; Fleischhauer 2003

 **Alchemilla vulgaris** *L.*

Common Names ▶ lady's mantle; *French:* alichimille, manteau de Notre-Dame; *German:* Gemeiner Frauenmantel, Sinau; *Italian:* alchemilla; *Russian:* manshetka; *Spanish:* pie de leon

Usage ▶ pot-herb

Parts Used ▶ leaf

Distribution ▶ C Europe, W Asia, E America

Erhardt et al. 2002; Fleischhauer 2003; Hanelt 2001; Hoppe 1, 1948; Koschtschejew 1990; Schönfelder 2001; Wyk et al. 2004

Aleurites J.R. Forst. et G. Forst. - Euphorbiaceae **Aleurites javanica** *Gand.*

▶ *Aleurites moluccana* (L.) Willd.

 **Aleurites moluccana** (L.) Willd.

Synonyms ▶ *Aleurites javanica* Gand., *Aleurites triloba* J.R. Forst. et G. Forst., *Jatropha moluccana* L., *Juglans camirium* Lour.

Common Names ▶ candle berry, candle nut, Indian walnut; *Chinese:* shi li zi; *French:* noix des Indes, noix de Bancoul, noix des Moluques; *German:* Kandeln, Bankuln, Kekunanuss, Kemiri, Kemiri-, Kerzen- or Lichternuss; *Hindi:* jangli akhrot; *Indonesian:* kemiri, miri, muncang; *Javanese:* kemiri; *Malaysian:* kemiri, kembiri, buah keras; *Laos:* kôk namz man; *Pilipino:* kami, lumbang, biao; *Portuguese:* noz da Índia; *Spanish:* calumbán, camirio,

lumban; *Thai:* phothisat, kue-ra, purat, mayao; *Vietnamese:* cây lai

Usage ▶ spice; before used the seeds are roasted, especially for soups and sauces

Parts Used ▶ seed

Distribution ▶ India, China, SE Asia, Polynesia, New Zealand, origin. Malaysia; widely cultivated in the Tropics

Note ▶ Before being used the seeds must be roasted. Raw seeds are poisonous. It is an indispensable spice in Indonesian cuisine.

Blank R.J. et al. 1997; Engelbeen 1946; Erhardt et al. 2002; Foster 1962; Guzman/Siemonsma 1999; Hanelt 2001; Seidemann 1993; Seidemann/Siebert 1987; Staesche 1972; Strauß 1969c; Täufel et al. 1993; Wealth of India 1, 1948; Wiersoma/León 1999; Zeven/de Wet 1982

 **Aleurites triloba** *J.R.Forst. et G. Forst.*


▶ *Aleurites moluccana* (L.) Willd.

 **Alga marina** *Lam.*

▶ *Zostera marina* L.

Alliaria Heist. ex Fabr. - Brassicaceae (Cruciferae) **Alliaria officinalis** *Andr. ex M. Bieb.*

▶ *Alliaria petiolata* (M. Bieb.) Cavara ex M. Bieb.

 **Alliaria petiolata** (M. Bieb.)
Cavara et Grande 

Synonyms ▶ *Alliaria officinalis* Andr. ex M. Bieb., *Sisymbrium alliaria* Scop.

Common Names ▶ garlic mustard, hedge garlic, Jack-by-the-hedge, onion nettle; *Arabic:* hashisha thaw-miyah; *French:* alliairé; *German:* Lauchkraut, Knoblauchsrauke, Lauchhederich; *Italian:* agliaria, alliaria; *Russian:* tschesnotschnik, tschesnotschniza, tschesnotschnaja trawa, lesnoj tschesnok; *Spanish:* erisimo



▣ **Alliaria petiolata**, flowering

Usage ▶ pot-herb, condiment

Parts Used ▶ fresh and dried leaves

Distribution ▶ N Africa, temperate Asia, India, E Europe, SE and SW Europe, native elsewhere

Aichele/Schwegler 3, 1995; Arora/Pandey 1996; Bois 1934; Bremness 2001; Davidson 1999; Dudtscheko et al. 1989; Erhardt et al. 2002; Fleischhauer 2003; Hager 4, 1992; Hiller/Melzig 1999; Pochljobkin 1974, 1977; Schönfelder 2001; Seidemann 1993c, 1995a; Seidemann/Siebert 1987; Täufel et al. 1993; Tucker 1986; Uphof 1968; Wiersema/León 1999

 **Alliaria wasabi** Prantl

➤ *Wasabi japonica* (Miq.) Matsum.

Allium L. – Garlic, Leek, Onion - Alliaceae (Liliaceae)

Abraham et al. 1976; Bernhardt 1970; Block 1985, 1992; Block et al. 1992 a, b; Brewster 1994; Burba/Galmarini 1997; Carson 1987; Davis 1992; Fenwick/Hanley 1985/1986; Hager 4, 1992; Hanelt 1994, 2001; Helm 1956; Herrmann 1995; Jones/Mann 1963; Maggioni et al. 2001; Mathew 1996; Rabinowitch/Brewster 1990; Rabinowitch/Currah 2002; Schwartz/Mohan 1994; Seidemann 1993c; Täufel et

al 1993; Vvedensky 1944; Whitaker 1976; Widder/Sabater 2002; Woodward 1996; Xiao-Jia et al. 1994

 **Allium altaicum** Pall.

Synonyms ▶ *Allium ceratophyllum* Bess. & Ledeb., *Allium microbulbum* Prokh., *Allium sapidissimum* Hedw., *Allium saxatile* Pall.

Common Names ▶ Altai onion; *German*: Altai-Zwiebel, Sibirische Zwiebel; *Russian*: altajskij luk, sibirskij dinkij luk, kamennij luk, gorowoj luk, sontschina, mongol'skij luk, luk altajskij

Usage ▶ spice


Parts Used ▶ bulb

Distribution ▶ Altai, mountains of S Siberia and Mongolia to the Transbaical region, SE Kazakhstan, NW China

Dudtschenko et al. 1989; Hanelt 2001; Pochljobkin 1974, 1977; Schultze-Motel 1986; Täufel et al. 1993; Zeven/de Wet 1982

 **Allium ampeloprasum** L.

➤ *Allium ampeloprasum* L. var. *ampeloprasum*

 **Allium ampeloprasum** L. var. *ampeloprasum*

[or Great-Headed Garlic Group]

Synonyms ▶ *Allium ampeloprasum* L., *Allium holmense* Mill., *Allium lineare* Mill., *Porrum ampeloprasum* (L.) Mill.

Common Names ▶ great round-headed garlic, levant garlic, wild leek, leek; *Arabic*: tum-zu el-raas; *Chinese*: da tou Suan; *Dutch*: wilde prei, wild look; *French*: ail d'Orient, ail à cheval, faux poireau, poireau d'été, petit oignon; *German*: Acker-Knoblauch, Sommer-Knoblauch, Pferde-Knoblauch, Weinlauch; *Italian*: porrandello, porraccio, porro selvatico; *Portuguese*: alho porro bravo; *Russian*: luk shemtschushnuj, luk vinogradnji; *Spanish*: cebollino, puerro agreste, puerro silvestre

Usage ▶ spice

Parts Used ▶ bulb, clove, leaf


Distribution ▶ Greece, Russia, Near East, Middle East:

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Iran, NW India, Transcaucasus, Turkey; SE Asia, Mexico, Chile, USA, N Africa, also cultivated

Note ▶ The plant has a strong garlic-like smell.

Aichele/Schwegler 5, 1996; Blancke 2000; Cheers 1998; Davidson 1999; Erhardt et al. 2002; Fattorusso et al. 2002; Hager 4, 1992; Hanelt 2001; Hepper 1992; Täufel et al. 1993; Uphof 1968; Wiersema/León 1999; Zeven/de Wet 1982

 **Allium ampeloprasum L. var. porrum (L.) J. Gray**

▶ *Allium porrum* L.

 **Allium angolense Baker**

Common Names ▶ African onion, African shallot;
French: echalotte d'Angole, echalotte d'Afrique tropicale; *German*: Afrikanische Zwiebel, Angolanische Zwiebel; *Russian*: luk angol'skij

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ Africa: Angola, Congo, Gabun, Zaire, also cultivated

Schultze-Motel 1986; Teuscher 2003

 **Allium anguinum Bubani**

▶ *Allium victoralis* L.

 **Allium angulosum Lour.**

▶ *Allium ramosum* L.

 **Allium angulosum L.**

Common Names ▶ edged garlic; *German*: Kantiger Lauch

Usage ▶ spice

Parts Used ▶ bulb, leaf

Distribution ▶ Europe, Siberia

Erhardt et al. 2002; Fleischhauer 2003; Loch 1993

 **Allium ascalonicum L.**


▶ *Allium cepa* L. var. *ascalonicum* Baker

 **Allium ascalonicum auct. non L.**


▶ *Allium cepa* L. var. *ascalonicum* Baker

 **Allium bakeri Hoop. non Regel**

▶ *Allium fistulosum* L.

 **Allium bakeri Regel**

▶ *Allium chinense* G. Don

 **Allium bouddhae O. Debeaux**

▶ *Allium fistulosum* L.

 **Allium canadense L.**

Synonyms ▶ *Allium continuum* Small; *Allium mutabile* Mich.

Common Names ▶ Canada onion, American wild onion;
Cuban: ajo montaña, ajo porro; *German*: Kanadische Zwiebel

Usage ▶ spice (rarely), especially by the Cheyenne Indians

Parts Used ▶ bulb

Distribution ▶ Canada; cultivated in Cuba

Note ▶ Perhaps also taxonomic derivatives of the species cultivated in Cuba.

Hanelt 2001; Small 1997

 **Allium carinatum L.**

Common Names ▶ keeled garlic; *German*: Gekielter Lauch

Usage ▶ spice

Parts Used ▶ leaf, bulb

Distribution ▶ C Europe

Note ▶ The ssp. *carinatum* and ssp. *pulchellium* (G. Don) Bonn. et Layens (nice garlic; *French*: ail à carène élégant; *German*: Schöner Lauch are only rarely spreaded and used.

Erhardt et al. 2002; Fleischhauer 2003; Loch 1993

Allium cepa L. var. ascalonicum Baker

Synonyms ▶ *Allium ascalonicum* auct. non L.

Common Names ▶ eschalot, shalott, Spanish garlic;

Dutch: esjalot; *French*: ail stérile, échalotte, ciboule oignon patate, oignon sous terre; *German*: Askalonzwiebel, Aschlauch, Batatenzwiebel, Eschlauch, Frühlingszwiebel, Frühlingslauch, Kartoffelzwiebel, Klöben, Levantelauch, Schalotte, Schlotte, Syrische Zwiebel; *Hindi*: kanda lasum; *India*: gundhun; *Indonesian*: bawang erah; *Italian*: scalogno; *Malaysian*: bawang merah; *Pilipino*: sibuyas tagalog; *Portuguese*: cebolha roxa; *Russian*: luk nemezki, luk schalot; *Spanish*: chalote, ascalonia, ascaloña; *Thai*: horm daeng, horm lek; *Vietnamese*: canh kho, canh ieu

Usage ▶ spice; seeds for flat bread and curry powder

Parts Used ▶ bulb, seed

Distribution ▶ only cultivated

Bärtels 1997; Bendel 2002; Blancke 2000; Bois 1934; Cheers 1998; Davidson 1999; Dudtschenko et al. 1989; Duke et al. 2003; Fattorusso et al. 2002; Hager 4, 1992; Hanelt 2001; Hiller/Melzig 1999; Hoppe 1949; Hutton 1989; Körber-Grohne 1989; Melchior/Kastner 1974; Pochljobkin 1974, 1977; Seidemann 1993c; Seidemann/Siebert 1987; Täufel et al. 1993; Teuscher 2003; Tindall 1983; Vogel 1995a

Allium cepa L. – Cepa-Group (Common Onion Group)

Allium cepa L. var. cepa

Common Names ▶ onion, bulb onion, garden onion, potato onion, Spanish onion; *Arabic*: bas(s)al, besla; *Chinese*: hsieh pai, hu cong, xie ba, yang cong, yang ts'ung; *Dutch*: ui; *French*: ciboule, oignon; *German*: Küchenzwiebel, Sommerzwiebel, Speiszwiebel, Rams, Zip(p)eln, Zipolle; *Hindi*: piyaz,



 **Allium cepa var. ascalonicum, aerial onions**

pyaj; *Italian*: cipolla; *Japanese*: atasugi, tamanegi; *Korean*: okpha, tunggulpha, yangpha; *Malaysian*: bawang; *Pilipino*: lasona, sibuyas; *Portuguese*: cebola; *Russian*: luk reptschatyj; *Sanskrit*: palandu, durandha; *Spanish*: cebolla; *Thai*: yai; *Vietnamese*: khan ko, hanh la

Usage ▶ spice and food (vegetable)

Parts Used ▶ bulb

Distribution ▶ only cultivated

Adam et al. 2000; Aichele/Schwegler 5, 1996; Aksoy 1983; Bärtels 1997; Bendel 2002; Block 1985, 1992; Boelens et al. 1971; Bois 1934; Bremness 2001; Brodnitz et al. 1969; Carson 1987; Davidson 1999; Dudtschenko et al. 1989; Duke et al. 2003; Faheid 1998; Farkas et al. 1992; Farrell 1985; Fossen et al. 1998; Hager 4, 1992; Hanelt 2001; Heeger 1956; Hepper 1992; Hiller/Melzig 1999; Hoffmann et al. 1992; Hoppe 1949; Järvenpää et al. 1998; Kaak et al. 2004; Koch 1994; Koderä et al. 2002; Körber-Grohne 1989; Laul et al. 1984; Lewington 1990; Marotti/Piccaglia 2002; Martine 1980; Martin-Lagos et al. 1992; Matheis/Lösung 1999; Mazza et al. 1980; Melchior/Kastner 1974; Nefisa et al. 1994; Patil et al. 1995; Peter 2001; Pochljobkin 1974, 1977; Pruthi 1976; Pschyrembel 1998; Raine 1978; Rosengarten 1969; Roth/Kormann 1997; Saini/Davis 1969; Schönfelder 2001; Seidemann 1993c; Seidemann/Siebert 1987; Sfikas 1994; Sharma 2003; Täufel et al. 1993; Teuscher 2003; Tindall 1983;

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Uhl 2000; Uphof 1968; Villamara et al. 1994; Wiersema/León 1999; Wyk et al. 2004; Zeven/de Wet 1982

 **Allium cepa L. ssp. vivipara Metzg. Alef.**

➤ *Allium x proliferum (Moench) Schrad. ex Willd.*

 **Allium cepa L. var. cepa**

➤ *Allium cepa L. – Cepa-Group.*

 **Allium cepa L. var. proliferum (Moench)**
Targ.-Tozz

➤ *Allium x proliferum (Moench) Schrad. ex Willd.*

 **Allium cepa L. var. sylvestre Regel**

➤ *Allium oschaninii B. Fedtsch.*

 **Allium cepa L. var. viviparum (Metzg.) Alef.**

➤ *Allium x proliferum (Moench) Schrad. ex Willd.*

**Allium cepa L. –
Every-ready onion Group**

 **Allium cepa L. var. perutile Stearn**

Common Names ▶ Ever-ready onion

Usage ▶ spice

Parts Used ▶ bulb, leaf

Distribution ▶ cultivated in France

Chopra et al. 1956; Hanelt 1985, 2001

 **Allium ceratophyllum Bess. & Ledeb.**

➤ *Allium altaicum Pall.*

 **Allium cernuum Roth.**

Common Names ▶ lady's leek, nodding onion, wild onion; *French:* ail penché; *German:* Sommerzwiebel

Usage ▶ spice, flavoring

Parts Used ▶ bulb, leek

Distribution ▶ Canada, USA: Florida, California, Mexico

Cheers 1998; Sánchez-Monge/Parellada 1981; Täufel et al. 1993; Teuscher 2003; Wiersema/León 1999

 **Allium chinense Maxim.**

➤ *Allium ramosum L.*

 **Allium chinense G. Don**

Synonyms ▶ *Allium bakeri* Regel, *Allium splendens* Miq., *Allium triquetrum* Lour.

Common Names ▶ Baker' garlic, Chinese chives, Chinese onion, Chinese scallion, Japanese scallion, Oriental onion; *Arabic:* tum rlxhabazeen; *Chinese:* jiao tou, qiao tou, xie; *French:* echalotte chinoise; *German:* Chinesischer Schnittlauch, Chinesische Zwiebel, Schnittknoblauch; *Japanese:* rakkyō; *Korean:* junggukpuchu, yompuchu; *Portuguese:* chalota chinesa; *Spanish:* chalote chinesa; *Thai:* mee yoi

Usage ▶ spice (pickles); **product:** essential oil

Parts Used ▶ bulb

Distribution ▶ China, cultivated elsewhere, specially Asia, also cultivated in SE Asia, Hawaii, Australia, California, Cuba

Arora/Pamdey 1996; Davidson 1999; Hager 4, 1992; Hanelt 2001; Hiller/Melzig 1999; Kameoka et al. 1984; Kumar 2003; Mann/Stearn 1960; Peng et al. 1996; Pino et al. 2001; Schultze-Motel 1986; Seidemann 1993c; Siemonsma/Piluek 1993; Small 1997; Täufel et al. 1983; Teuscher 2003; Uphof 1968; Wiersema/León 1999; Zeven/de Wet 1982

 **Allium consanguineum Kunth**

Synonyms ▶ *Allium stracheyi* Baker

Common Names ▶ *German:* Blutsverwandter Lauch; *Hi-*

malayas: dunna, pharan; *India*: chollang (NE India)

Usage ▶ spice

Parts Used ▶ leaf

Distribution ▶ W, C Himalayas, N India

Arora/Pandey 1996; Hanelt 2001; Negi/Plant 1992; Sharma et al. 1997

Allium continuum *Small*

▶ *Allium canadense* L.

Allium ellipticum *Wall.*

▶ *Allium victorais* L.

Allium fistulosum L.

Synonyms ▶ *Allium bakeri* Hoop. non Regel; *Allium bouddhae* O. Debeaux

Common Names ▶ cibol, Japanese bunching onion, Japanese leek, spring onion, silverskin onion, Welsh onion; *Arabic*: bassal el-mustatere, bassal el-ankudy; *Chinese*: bai, cong, mu ts'ung, ts'ung; *Dutch*: grof bieslook; *French*: ciboule, ail fistuleux, oignon d'hiver; *German*: Schnitzzwiebel, Winterzwiebel, Heckenzwiebel, Hohllauch, Jakobslauch, Klöben, Silberzwiebel; *Indonesian*: aun bawang; *Italian*: cipoletta, cipolla d'inverno; *Japanese*: negi; *Korean*: pha; *Malaysian*: daun bawang; *Pilipino*: sibuyasna mura; *Russian*: kitajskij luk, luk batun, luk tatarka; *Spanish*: cebolleta, cebolleta francesa, cebollino inglés; *Thai*: ton horm; *Vietnamese*: hanh, hombua, thong bach

Usage ▶ spice; **product**: essential oil

Parts Used ▶ leek

Distribution ▶ only cultivated, probable origin in Asia

Aichele/Schwegler 5, 1996; Blancke 2000; Bois 1934; Bremness 2201; Cheers 1998; Davidson 1999; Dudtschenko et al. 1989; Hager 4, 1992; Hanelt 2001; Helm 1956; Hutton 1998; Kameoka et al. 1984; Körber-Grohne 1898; Kuo et al. 1990; Leung 1991; Lück 2004; Melchior/Kastner 1974; Pochljobkin 1974, 1977; Pruthi 1976; Schultze-Motel 1986; Seidemann 1993c; Seidemann/Siebert 1987; Siemonesma/Piluek 1993; Täufel et al. 1983; Teuscher 2003; Tindall



Allium fistulosum, flowering

1983; Tucker 1986; Uphof 1968; Vogel 1995b; WHO Manila 1990; Wiersema/León 1999; Zeven/de Wet 1982

Allium giganteum *Regel*

Common Names ▶ giant onion; *French*: ail géant de l'Himalaya; *German*: Riesen-Zwiebel

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ in the former Soviet Union, Himalayas, C Asia

Cheers 1997; Dudtschenko et al. 1989; Erhardt et al. 2002; Hanelt 2001; Täufel et al. 1993; Teuscher 2003; Wiersema/León 1997

Allium grayi *Regel*

Common Names ▶ Chinese garlic, Japanese garlic, water garlic; *Chinese*: siao suan, xiao, xie bai, yeh-suan, yeh-tsin-tsai; *French*: ail du Japon; *German*: Chinesischer Knoblauch, Japanischer Knoblauch; Wasserknoblauch; *Italian*: aglio giapponese;

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Japanese: no-biru; *Korean:* tallae; *Mongolian:* zer-leg sarmis; *Portuguese:* alho do Japão; *Russian:* luk krupnotytschinkovyj; *Spanish:* ajo del Japon

Usage ▶ spice, flavoring (sporadically)

Parts Used ▶ bulb, leek

Distribution ▶ E Asia, China, Mongolia; Russia, Far and Middle East

Helm 1956; Ho JongYoul et al. 2001; Peng et al. 1995; Schultze-Motel 1986; Täufel et al. 1983; Teuscher 2003; Wiersema/León 1997

 **Allium holmense** Mill.

▶ *Allium ampeloprasum* L. ssp. *ampeloprasum*

 **Allium hookeri** Thwaites

Synonyms ▶ *Allium wallichii* Regel, *Allium tsoongii* Wang et Tang

Common Names ▶ Hooker garlic; *German:* Hooker-Zwiebel; *Chinese:* kuan ye jiu; *Thai:* su


Usage ▶ flavoring for soups

Parts Used ▶ leaf

Distribution ▶ E Himalayas, Tibet, SW China, Assam, N Thailand, Sri Lanka

Note ▶ The fleshy root is used as a vegetable; the cultivated forms are seed-sterile.

Hanelt 1994, 2001; Kumar 2003; Sharma et al. 1997

 **Allium karataviense** Regel

Common Names ▶ *French:* ail du Turkestan; *German:* Blauzungenlauch, Turkestanische Zwiebel

Usage ▶ spice

Parts Used ▶ bulb, leaf

Distribution ▶ C Asia, especially Turkestan

Erhardt et al. 2002; Hanelt 2001

 **Allium kunthii** G. Don

Synonyms ▶ *Allium longifolium* (Kunth) Humb., *Schoenoprasum longifolium* Kunth

Common Names ▶ Mexican onion; *German:* Mexikanische Zwiebel

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ N Mexico, New Mexico; Texas

Hanelt 2001; Schultze-Motel 1986; Seidemann 1993c; Täufel et al. 1993

 **Allium kurrat Schweinf.** ex K. Krause

[or *Allium kurrat* Group]

Common Names ▶ Egypt leek, salad leek; *Arabic:* kurrat, kurrat baladi, kurrat nabati; *French:* kurrat; *German:* Ägyptischer Lauch, Kurratlauch, Arabischer Schnittlauch, Salatlauch; *Japanese:* kurrat nabati; *Portuguese:* kurrat; *Russian:* luk kurrat, luk salat-nji; *Spanish:* kurrat

Usage ▶ spice, condiment, food (vegetable)

Parts Used ▶ leaf

Distribution ▶ cultivated in N Africa: Egypt, also in Arabia and Near and Middle East: Palestine

Davidson 1999; Hanelt 2001; Hepper 1992; Schultze-Motel 1986; Seidemann 1993c; Täufel et al. 1993; Teuscher 2003; Tucker 1986; Uphof 1968; Wiersema/León 1999; Zeven/de Wet 1982

 **Allium lacteum** Sm.

▶ *Allium neopolitanicum* Cyr.

 **Allium latissimum** Prokh.

▶ *Allium victoralis* L.

 **Allium ledebourianum** Schult.

Common Names ▶ ledebour onion; *German:* Ledebour-Zwiebel

Synonyms ▶ *Allium uliginosum* Ldb.

Usage ▶ spice, condiment

Parts Used ▶ bulb, leaf

Distribution ▶ Far East, Russia: Siberia, Japan

Hanelt 2001; Uphof 1968

 **Allium lineare** *MilL.*

➤ *Allium ampeloprasum* L. ssp. *ampeloprasum*

 **Allium longifolium** (*Kunth*) *Humb.*

➤ *Allium kunthii* G. Don

 **Allium longicuspis** *Regel*

[*Longicuspis* Group]

Common Names ▶ *German*: Spitzer Lauch; *Russian*: luk dlinno-ostrokonetschji

Usage ▶ spice

Parts Used ▶ bulbil

Distribution ▶ C, W Asia, in the former Soviet Union; since 1952 cultivated in Kazakhstan

Aichele/Schwegler 5, 1996; Blancke 2000; Dudtschenko et al. 1989; Hanelt 2001; Hepper 1992; Schultze-Motel 1986; Täufel et al. 1993; Teuscher 2003; Wiersema/León 1999; Zeven/de Wet 1982

 **Allium macrostemon** *Bunge*

➤ *Allium grayi* *Regel*

 **Allium margaritaceum** *Moench*

➤ *Allium scorodoprasum* L.

 **Allium microbulbum** *Prokh.*

➤ *Allium altaicum* *Pall.*

 **Allium microdictyum** *Prokh.*

➤ *Allium victoralis* L.

 **Allium moly** L.

Common Names ▶ lily leek, moly, yellow onion; *French*: ail doré; *German*: Goldlauch, Molyzwiebel, Spanischer Lauch

Usage ▶ spice

Parts Used ▶ leek, bulb

Distribution ▶ SW Europe: Spain, SW France, N Africa; also frequently cultivated in gardens as an ornamental plant

Note ▶ This plant is not identical with the moly-plant of antiquity.

Bärtels 1997; Cheers 1998; Erhardt et al. 2002; Koch 1995; Seidemann 1992b

 **Allium mutabile** *Mich.*

➤ *Allium canadense* L.

 **Allium neglectum** *Wender*

➤ *Allium scorodoprasum* L.

 **Allium neopolitanum** *Cyr.*

Synonyms ▶ *Allium cowanii* Lindl., *Allium lacteum* Sm., *Allium sulcatum* DC.

Common Names ▶ Daffodil garlic, naples garlic, false garlic, flowering onion, Neapolitan garlic; *French*: ail de Naples; *German*: Neapel-Zwiebel, Neopolitanische Zwiebel; *Mexico (Nahua)*: xonacat

Usage ▶ spice, condiment

Parts Used ▶ bulb, leaf

Distribution ▶ Europe: Iberia, Turkey; C Mexico, grown as an ornamental plant in several warm temperate countries; N Africa, W Asia

Bärtels 1997; Cheers 1998; Erhardt et al. 2002; Hanelt 2001; Wiersema/León 1997

 **Allium nigrum** L.

Common Names ▶ black garlic, broad leaf garlic; *German*: Schwarzer Lauch, Zwiebelreicher Lauch


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Usage ▶ spice

Parts Used ▶ bulbil, leaf

Distribution ▶ Europe, Turkey, Syria, N Africa, W Asia
SE Europe, SW Europe

Erhardt et al. 2002; Fleischhauer 2003; Loch 1993; Wiersema/León 1997

 **Allium nutans L.**

Common Names ▶ *German*: Nickender Lauch; *Russian*: slizun

Usage ▶ spice

Parts Used ▶ young leaves

Distribution ▶ Siberia, from S Ural to the Yenissei and Kazakhstan

Erhardt et al. 2002; Hanelt 1994, 2001

 **Allium obliquum L.**

Common Names ▶ oblique onion, twisted leaf; *German*: Schiefe Zwiebel, Ziegenlauch; *Mongolian*: sarmisan songino; *Russian*: dikij tschesnok, luk kosoj

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ Romania, S Europe, Russia, SW and C Siberia, Kazakhstan, Uzbekistan; NW Mongolia, NW China; cultivated in W Siberia

Note ▶ The plant is a wild substitute for true garlic.

Hanelt 2001; Mansfeld 1986; Schultze-Motel 1986; Seidemann 1993c; Täufel et al. 1993; Teuscher 2003; Uphof 1968

 **Allium ochotense Prokh.**

▶ *Allium victoralis L. ssp. plytyphyllum*

 **Allium odorum L.**

▶ *Allium ramosum L.*

 **Allium odorum auct. non L.**

▶ *Allium tuberosum Rottl. ex Spreng.*

 **Allium oleraceum L.**

Common Names ▶ field garlic; *German*: Feldzwiebel, Kohllauch, Rosslauch

Usage ▶ spice, flavoring

Parts Used ▶ bulb, leaf

Distribution ▶ Europe, especially Iberia; Caucasus, also naturalized elsewhere in temperate regions

Aichele/Schwegler 5, 1996; Dudtschenko et al 1989; Erhardt et al. 2002; Fleischhauer 2003; Hanelt 2001; Schnelle 1999; Täufel et al 1993; Uphof 1968

 **Allium ophioscorodon Link**

▶ *Allium sativum var. ophioscorodon (Link) Döll*

 **Allium oschaninii B. Fedtsch.**

Synonyms ▶ *Allium cepa L. var. sylvestre* Regel

Common Names ▶ *German*: Oschanin-Zwiebel; *Russian*: luk oschanina

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ Tajikistan, N, W and C Afghanistan, NE Iran, Uzbekistan

Note ▶ According to molecular and isoenzyme data the cultivar group of French shallots belong to the species.

Hanelt 2001; Schultze-Motel 1986; Wiersema/León 1999; Zeven/de Wet 1982

 **Allium paradoxum (M. Bieb.) G. Don**

Common Names ▶ few-flowered leek; *German*: Seltsamer Lauch

Usage ▶ spice

Parts Used ▶ bulb, leaf

Distribution ▶ EC Europe, Caucasus, N Iran, C Asia, W Asia, native elsewhere

Erhardt et al. 2002; Fleischhauer 2003; Hanelt 2001; Loch 1993; Wiersema/León 1997

Hanelt 1994, 2001; Schultze-Motel 1986; Seidemann 1993c; Teuscher 2003

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Allium porrum L.

[or Leek Group respectively Porrum Group]

Synonyms ▶ *Allium ampeloprasum* L. var. *porrum* (L.) J. Gay, *Porrum commune* Rchb., *Porrum sativum* Mill.

Common Names ▶ leek, common leek, purret; *Arabic*: kourrath; *French*: poireau, porreau; *German*: Porree, Breitlauch, Suppenlauch, Welschlauch, Winterlauch; *Hindi*: vilayaiti lasson; *India*: paru; *Indonesian*: bawang pere; *Italian*: porro; *Japanese*: nira-negi; *Portuguese*: alho francês, alho porro; *Russian*: luk porej; *Spanish*: ajo porro, ajo puerro, puerro;

Usage ▶ spice (greens), and food (vegetable)

Parts Used ▶ shaft of the plant, leaf

Distribution ▶ Egypt, Mediterranean region, cultivated in many European countries, especially in W Europe, N America

Aichele/Schwegler 5, 1996; Bendel 2002; Bonnet 1976; Bremness 2001; Cheers 1998; Davidson 1999; Dudtschenko et al. 1989; Fat-torusso et al. 2000, 2001; Hager 4, 1992; Hanelt 1994, 2001; Heeger 1956; Hepper 1992; Hiller/Melzig 1999; Körber-Grohne 1989; Pochljobkin 1994, 1977; Schulz et al 1999; Schultze-Motel 1986; Seidemann 1993c; Siemonesma Piluek 1993; Starke/Herrmann 1976; Stephanie/Baltes 1991, 1992; Täufel et al. 1993; Teuscher 2003; Uphof 1968; Zeven/de Wet 1982

Allium porrum L. var. sectivum F.H. Lueder

[or Pearl-Onion Group]

Common Names ▶ pearl onion, sand leek, Spanish garlic; *German*: Natternknoblauch, Perllauch, Perlzwiebel, Rockenbole, Rokambole, Schlangenglauch, Silberzwiebel

Usage ▶ spice and for pickling

Parts Used ▶ small bulb and bulblet

Distribution ▶ cultivated in Germany, the Netherlands, Italy

Note ▶ The Indonesian prei anak cultivars also belong to this group.

Allium x proliferum (Moench) Schrad. ex Willd.

Synonyms ▶ *Allium cepa* L. var. *proliferum* (Moench) Targ.-Tozz., *Allium cepa* L. ssp. *vivipara* Metzg., *Allium cepa* L. ssp. *viviparum* (Metzgt.) Alef., *Allium wakegi* Araki; *Cepa prolifera* Moench

Common Names ▶ Beltsville bunching onion, Catawissa onion, Egyptian onion, top onion, tree onion, Wakegi onion; *French*: oignon d'Egypte, oignon catawissa; *German*: Ägyptische Zwiebel, Catawissazwiebel, Etagenzwiebel, Luftzwiebel; *Japanese*: wakegi; *Russian*: luk mnogojarusnyj

Usage ▶ spice

Parts Used ▶ inflorescence bulbils, bulb, leaf

Distribution ▶ Altai, N Caucasus, W Siberia; only cultivated

Note ▶ Only cultivated; a hybrid between *A fistulosum* and *A. cepa*.

Bärtels 1997; Davidson 1999; Faray et al 1981; Hager 4, 1992; Hanelt 2001; Lück 2004; Pochljobkin 1974, 1977; Schultze-Motel 1986; Seidemann 1993c; Seidemann/Siebert 1987; Täufel et al. 1993; Teuscher 2003; Zeven/de Wet 1982

Allium pskemense B. Fedtsch

Common Names ▶ *German*: Pskemenser Zwiebel; *Russian*: pskemskej luk, pies-ansyr; gornyj luk

Usage ▶ spice

Parts Used ▶ bulb

Distribution ▶ former Soviet Union: Tien-Schan, Taskentian, Alatau; C Asia

Dudtschenko et al. 1989; Hanelt 2001; Pochljobkin 1974, 1977; Wiersema/León 1999; Zeven/de Wet 1982

Allium ramosum L.

Synonyms ▶ *Allium angulosum* L., *Allium chinense* Maxim., *Allium odorum* L., *Allium tartaricum* L.f., *Allium uliginosum* G. Don

Common Names ▶ Chinese chive, Chinese leek, fragrant