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THE BEAN BAG

A newsletter to promote communication among research scientists concerned with the systematics of the Leguminosae/Fabaceae

Number 28

November 1988



Third International Legume Conference

R. M. Polhill

Some of the subscribers to the Bean Bag have been suggesting practicalities for the Third International Legume Conference. Professor G. T. Prance, newly appointed as Director at the Royal Botanic Gardens, Kew, has offered to host a scientific meeting at Kew in the summer of 1992. The task of organising a major international conference on legumes has now reached the point where it seems best to divide the meeting into several sessions with co-ordinators responsible for a review of special aspects or particular tribal groupings.

There are many exciting new developments, and we welcome the widest participation. Collaborative programmes have worked well for the previous meetings and shortcomings in rapid publications of the proceedings should be overcome by existing facilities for in-house typesetting. The series *Advances in Legume Systematics* will be continued for interim papers and the proceedings can be divided into parts to expedite publication of experimental data.

In addition to the 1992 meeting, suggestions have been made for one or two intervening workshops in legume-rich tropical countries, so we can get together and talk more about plants and procedures. This might be linked to congresses already planned in suitable places.

Please do write in with your suggestions. - Dr. R. M. POLHILL, Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, Great Britain.

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**Bean Bag address: SBM&NL, Bldg. 265, BARC-East
Beltsville, MD 20705 USA**

From the Editors

Charles R. Gunn and Joseph H. Kirkbride, Jr.

The BB is designed to promote communication among research scientists concerned with legume systematics. To achieve this goal the BB is issued in May and November of each year and features six columns: From the Editors, News (meetings, major events, announcements, etc.), New Readers, Gleanings, Nodulation and Nitrogen Fixation (new nodulation records), and Recent Legume Literature. Data in the Gleanings column are derived from questionnaire sheets which Readers complete and return. If you have news about legume systematics, send it to us for this column. The Recent Legume Literature column contains published research papers of specific interest to BB Readers. Recent is defined as one year old. We rarely will publish a citation that is more than one year old. Specific interest to BB Readers is defined as research papers of interest to a world wide group of legume systematic botanists. We encourage Bean Bag (BB) Readers to send us notices, observations, etc.

Diacritical marks can now be placed in the BB. If such marks should be placed in your name, address, publications, etc., please let us know. We are especially interested in correcting our Directory. Thank you.

2nd ILDIS Workshop

International Legume Database & Information Service

Frank A. Bisby

The 2nd ILDIS Workshop was held at Southampton, Great Britain, from 21st to 23rd September 1988. The Workshop was for participants in the project to *i*) review progress with Phase 1 - establishment of a species diversity system for all of the world's legume species - and *ii*) plan Phase 2 - extension of the species diversity system eventually to provide information on phytochemistry, biotechnology and plant breeding, germplasm sources, nodulation, applied botany and taxonomic botany. There were 45 participants from 11 countries. We are grateful for support from SERC, and the Commission of the European Communities.

Phase 1: Species Diversity System for 1990/91

Phase 1 of ILDIS is to establish a species diversity database that covers all species of Leguminosae. The data to be provided for each species comprise species checklist data (name, synonyms, tribe membership and references), geographic distribution (by continents and country with the status in each country) and "common knowledge" data (lifeform, habitat, conservation status, uses, vernacular names, and literature references for descriptions, illustrations and maps).

The species diversity database is designed both for data-entry and for subsequent use on PC/AT compatible MS-DOS computers at remote sites using the ALICE software purchased from the ALICE Software Partnership. The ILDIS database has a fully relational file structure which stores the data in very compact form. The ALICE software is provided as dBASE III compiled with the Quicksilver Compiler.

Collating data for the species diversity database involves two main steps. Firstly geographical compilers in different continents are undertaking the initial entry of the Type 1 data. Secondly taxonomic coordinators for each tribe or large genus are going to edit data for their group, the aim being to consult widely and to bring the taxonomic checklist element of type 1 data into taxonomic consistency.

At the Workshop Mike Lock and Jim ZARUCCHI reported on the collation of the three large

geographical datasets, for Africa, the Americas, and Europe. These are complete and now handed over to the ILDIS Coordinating Centre. Mike Lock working at the Royal Botanic Gardens Kew, completed the African dataset in May 1988. It contained fairly full Type 1 data for 5,000 species (5,800 taxa). Jim ZARUCCHI at the Missouri Botanical Garden had in August 1988 completed his compilation of data on 7,160 N. American and S. American species (9,400 taxa). He had transferred the data, which comprised the checklist and geographical elements of Type 1 Data, from the TROPICOS system to the ILDIS Coordinating Centre. Tony Sumner at Reading University had also transferred data for about 1,200 European taxa from the ESFDS system to ILDIS.

Diana Richardson and Sue Hollis from the ILDIS Coordinating Centre at Southampton reported on progress with merging the three geographical datasets, "The Grand Merge." Diana has worked with the ALICE Software Partnership in writing the SAM software for checking incoming datasets and merging them with an ALICE format database. Sue Hollis has responsibility for botanical data standards in ILDIS and provides the editorial work involved in the merge. Workshop participants were a little concerned about the time taken and it was agreed to reduce the level of editorial work during the merge, leaving a larger share of the problems to be resolved subsequently by the taxonomic coordinators - the problem being that the taxonomic coordinators could not start until the merge was complete.

There was a wide ranging and useful discussion amongst the taxonomic coordinators. Many will receive their part of the merged database in spring 1989 in electronic form and will work on editing it using the ALICE software. Top priority was for taxonomic coordinators to check the taxonomic consistency of their group - this would involve consultation amongst taxonomists to agree on a consensus (with alternative classifications included in the synonymy), and then the work of harmonising the database records for consistency within this system. This editing involves getting the dataset to reflect the best of the available taxonomy, and not new research. Species accepted despite doubts will be marked "provisionally accepted." There was discussion on how some coordinators could edit hardcopy if they could not do the work on their own computer, and of difficulties in locating taxonomic coordinators for all groups.

The taxonomic editing work is planned for 1989, and during 1990 the edited data sets will be merged to give the first ILDIS database ready for public use. It will be complete for the legumes of Africa, Europe and the Americas, and projects in various stages of progress will add data for China, Pacific, W. Asia, S. Asia, S. E. Asia, Australia, Madagascar and USSR.

Peter Winfield and Bob ALLKIN reported for the ALICE Software Partnership. ILDIS participants are now using ALICE version 1, but will shortly be converted to using ALICE version 2. The new ALICE Query Module and ALICE Report Generator were demonstrated to ILDIS participants for the first time (using the African 5,000 African species dataset) and much admired by all.

Finally there was a discussion about how the legume species diversity database will be made available as a public service in 1990/91. The ILDIS User Services Group is expected to make precise recommendations during 1989, but preliminary discussions favored: hardcopy publications, publication on electronic media (database plus software on CD-ROM or diskettes), a database enquiry centre and an experimental online system (through BIOSIS).

Planning Phase 2 - Extending the Database to Cover Legume Information for Pure and Applied Scientists

The second part of the workshop was devoted to how ILDIS might extend the species diversity database to include botanical and applied sets of information that would serve the large community of scientists working on legumes. We considered the needs in agriculture and forestry (legume crops, legume forestry, underutilised crops, multi-purpose trees, plant breeding, germplasm), in medicine (pharmaceuticals, toxins, ethnobotany), in ecology (biological diversity, habitats, systematic botany, biogeography, conservation, legislation), and in physiology and chemistry

(phytochemistry, insecticides etc., foods and flavors, nitrogen fixation, gums).

It was agreed to break this enormous range of possibilities into separate subprojects, each focusing on a distinct "module" to the database. Under each module it would be possible to outline the information of greatest use, the demand from users, and the resources needed for data acquisition and software preparation. Each Phase 2 module would depend on the completion and continued maintenance of the Phase 1 species diversity database, and hence should have built into its costing a contribution to the Phase 1 database and the ILDIS network.

1. *Phytochemistry Module* (Coordinator - Prof. J.B. Harborne). Jeffrey Harborne and Frank BISBY reported that the most important element would be an index giving detailed enumeration of substances and the legumes from which they were reported. To produce and maintain this would be a major undertaking. A proposal for commercial partnership in this venture had been received from Chapman & Hall Publishers.
2. *Biotechnology & Plant Breeding* (Coordinators - Dr.L. Brimer & Prof. J. Cubero). Leon Brimer and Teresa Milan described ideas on providing factual data on the status of species in genetic transformation and breeding programmes along with further associated biological data on tissue culture, breeding systems, etc. A request for funding under the EC Biotechnology/Bioinformatics Programme had been rejected, but there would be renewed opportunities.
3. *Germplasm* (Coordinator - Mr. N. MAXTED). Nigel MAXTED agreed to explore the ILDIS needs for a balanced directory of germplasm sources for all legumes. This would need to link with existing organizations covering crops (IBPGR), forest trees, and botanic gardens resources (IUCN).
4. *Nodulation & Nitrogen Fixation* (Coordinators - Dr. J. KIRKBRIDE & Dr. J. I. SPRENT). There was a need both for simple nodulation records that might be added to Type 1 data, and for a more detailed module dealing with nodule form, physiology and Rhizobia.
5. *Applied Botany* (Coordinator - Dr. C. HUGHES). Colin HUGHES agreed to lead a small group examining the needs for information on plant uses, ethnobotany, vernacular names etc.
6. *Taxonomic Botany* (Dr. R.M. POLHILL). There was support for including the taxonomic hierarchy, and considerable discussion concerning brief descriptions, and identification aids, and extending Type 1 data to cover chromosome numbers and further ecological detail. A number present favored provision of simple line drawings once the software was available.

It was agreed that Phase 2 Coordinators would report back to a planning meeting in 12 months time. In the meantime there was still much work to be done in completing Phase 1!

ILDIS Organization

Coordinating Centre (Enquiries & Requests for ILDIS Newsletter)

Dr. Sue Hollis, ILDIS Coordinating Centre, Dept. of Biology, Building 44, University of Southampton, SOUTHAMPTON, SO9 5NH, Great Britain.

Executive - Dr. Frank BISBY (Project Coordinator), Dr. Roger POLHILL, Dr. James ZARUCCHI

Database Development Team - Dr. Bob ALLKIN, Mr. Peter Winfield

Board - Dr. L. Coradin, Prof. J. I. Cubero, Mr. M. N. Dadd, Dr. E. FORERO,
Prof. J. B. Harborne, Prof. V. H. Heywood, Prof. L. J. G. VAN DER MAESEN,
Prof. G.T. PRANCE, Dr. J. I. SPRENT, Prof. J. T. Williams

Higher-Level Legume Phylogeny Call for Contributions

Michael Crisp, Jenny Chappill and Peter H. Weston

For the *3rd International Legume Conference*, to be held at Kew in the summer of 1992, we hope to develop a phylogeny of the legumes at the highest levels (tribes and above). Obviously this can only be achieved by a collaboration between a number of workers in the field. At this stage we wish to contact as many interested people as possible. We are looking for (a) contributors of papers on relationships, particularly at the tribal level and (b) people working in more specialized fields (e.g. palynology, developmental biology, molecular biology) who may be willing to contribute data that can be incorporated in a phylogenetic analysis of the whole family. Among the first group, we would hope to coordinate research so that it is complementary, and focusses on those groups which are most problematic. The major problem we see is the monophyly or otherwise of the three subfamilies, especially the Caesalpinoioideae and Papilionoideae and the basal tribes within them. Relationships to other families also must be considered.

Jenny CHAPPILL has just commenced a post-doctoral study with the aim of producing a preliminary cladogram of the family and providing a framework for more detailed studies. She is keen to hear from people working in specialised fields who are interested in systematic implications of their work. People who wish to contribute papers on phylogenetic studies should contact Michael CRISP. - Dr. Michael Crisp, Australian National Botanic Garden, Canberra ACT 2601, Australia.

NEWSLETTERS

TDWG Newsletter

Number 1, September 1988, ISSN 1012-7607

This newsletter is intended to inform the taxonomic community of the activities and progress of the *Taxonomic Databases Working Group for Plant Sciences*. The first number contains the following columns: Chairman's note; Note des éditeurs; Sub-group News (Data Dictionary, Minimum Function Nomenclature, Type & Lectotypification Registers, Exchange Data Format, Geographic Standard, Book Titles, and Nomenclatural Indexing); Project's corner; and Short news. The editors are H. M. Burdet, C. E. Zellweger, and B. L. von Arx. It can be requested from the address given below by mail or electronically through BITNET at these addresses: DIDELOT@CGEUGE51 or ZELLEGE@CGEUGE51. Available from: "TDWG Newsletter," Conservatoire botanique, Case postale 60, CH-1292 Chambésy/GE, Switzerland.

COMPOSITAE NEWSLETTER

Number 14, June 1988

Tod F. Stuessy founded the newsletter in 1975, and produced numbers 1 through 5 (1977). Numbers 6 (1978) through 12 (1981) were edited by Charles Jeffrey and supported by Otto Koeltz

Antiquariat, now Koetzl Scientific Books, and the Bentham-Moxon Trust, Kew. At the International Botanical Congress in Sydney, Jette Baagoe of Copenhagen assumed editorship with distribution to be effected by the Swedish Museum of Natural History. They produced only one issue, number 13 (1982). The editorship has now been assumed by Mari Källersjö, scientific editor, and Ulrika Egerö, technical editor, and they plan to publish two issues each year. Number 14 had the following articles: Editorial *B. Nordenstrom*; Research on Compositae in Stockholm *B. Nordenstrom*; Generic Names of Compositae, part V (Ba-Bu) *C. Jeffrey*; and Recent References *C. Jeffrey*. Mr. Jeffrey has agreed to continue his series on generic names and literature lists. Available from: The Swedish Museum of Natural History, Department of Phanerogamic Botany, P.O. Box 50007, S-104 05 Stockholm, Sweden.

The Rhizosphere and Plant Growth

Beltsville Symposium XIV

May 8-11, 1989

Beltsville Agricultural Research Center
Beltsville, Maryland

Sponsored by Beltsville Area, Agricultural Research Service, U.S. Department of Agriculture
with the cooperation of
Friends of Agricultural Research - Beltsville

The symposium will consist of five sessions on the following topics: 1) The rhizosphere: General aspects; 2) Assessment of current methods and innovative new methods for rhizosphere studies; 3) Plant-microbe interactions: The rhizobium-legume symbiosis; 4) Rhizosphere interactions and plant pest control; and 5) Rhizosphere interactions and plant growth promotion. For additional information and registration materials contact: Dr. D. L. Keister, Chairman, or Ms. M. Blackwell, Conference Secretary, HH 19 Building 011, Beltsville Agricultural Research Center - West, Beltsville, Maryland 20705, USA, telephone: 301-344-1727.

Gleanings

AGULLO is studying *Prosopis*.

ALBUQUERQUE is Professor of Systematic Botany at the University and working on seed germination and identification with emphasis on legumes. Continues his work with medicinal plants and is contributing legume articles to a newspaper.

BEAUMONT (new Reader) has been working with STIRTON for 2 years as botanical illustrator on Psoraleae, *Otholobium*, and South American Sophoreae for *Flora Neotropica*. Now working with *Calpurnia* and plans to make extensive collections of *Calpurnia* throughout South Africa. Will supply duplicates to collaborators, and needs reprints on *Calpurnia* including agronomy and bruchid beetles.

BRENNER is in Pakistan until early December, 1988.

CACCAVARI (new Reader) is studying pollen of the *Piptadenia* group (*Mimosa* and *Stryphnodendron*). Needs pollen of *Mimosa* and offers same from Argentina.

CANNON (new Reader) is studying the ascomycete fungal genus *Phyllachora*, a large primarily

tropical group of obligate parasites, and is concentrating on those attacking members of the Fabaceae. There are about 200 named species, mostly distinguished on the basis of host. He will attempt to relate their classification to that of the Fabaceae.

CHAPPILL (new address) will be analyzing tribal level phylogeny for the Fabaceae, aiming for a report at the 1992 legume conference at Kew. See Crisp article above. Ed. Note: Thank you.

CLEMONS needs 15-25 viable seeds of *Mucuna pruriens* var. *utilis* (velvet-bean) and *Psophocarpus tetragonolobus* (winged-bean).

CORBY needs a few seeds of *Mora megistosperma*.

COWAN is working with MASLIN on *Acacia* spp. for the *Flora of Australia*.

DREWES (new Reader), with PALACIOS, is monographing *Marcopitium* spp. of Argentina.

EZE (new Reader) has completed papers on seed germination of *Prosopis africanum* and morphogenesis in seeds of selected Nigerian legumes. Has started a study of the interaction of light and water stress on seedlings of *Parkia* and *Prosopis*. Offers limited amount of *Prosopis* seeds.

GILL has started a study on the antimicrobial activity of selected tropical trees.

GUNN has submitted a 750 page typescript on the fruit-seed morphology of 156 genera of Caesalpinioideae to be published as USDA/ARS Technical Bulletin in about two years. Is completing the morphological aspects of an anatomical and morphological study of the lens on seeds of Caesalpinioideae and Mimosoideae with LERSTEN and Brubaker. See also WIERSEMA.

HOC continues her studies of *Pithecelobium*, *Inga*, *Albizia*, and *Cathormion* for *Flora del Paraguay* and started a taxonomic and pollen study of *Vigna* spp. of Argentina.

HUSAINI has begun to work on the cyto-morphology of legumes from northern Nigeria, and needs reprints on cytology and morphology of legumes. Offers seeds of some *Crotalaria* spp. from Nigeria.

HUSSAIN (new Reader) is working with root nodules.

KIRKBRIDE will be collecting germplasm of Lythraceae in southeastern Brazil and visiting herbaria in Brasília, Campinas, São Paulo, and Rio de Janeiro, Brazil, from January 15 to March 15, 1989. See also WIERSEMA.

KOPTUR has as a new project nectar production in annual legumes. Needs seeds of *Vigna unguiculata* and other *Vigna* spp. to grow in subtropics.

KRAUS (new Reader) has started a study of inflorescence morphology in Mimosoideae.

LEE (new Reader) is recording the morphological divergence patterns of reproductive characters for the three legume subfamilies. Needs references to monographs of large (100+ spp.) genera, especially from the Caesalpinioideae. Offers reprints after publication.

LERSTEN. See GUNN.

LOPEZ is working with nodulation and growth of *Inga* (tropical rain forest species) and *Enterolobium cyclocarpum*.

MASLIN. See COWAN.

MILTON offers *Acacia karoo*, *Lessertia* spp., *Melolbium*, and *Sutherlandia frutescens*.

OHASHI and P. Dy Phon are contributing *Desmodium* and allied genera to Flore du Cambodge, Flore du Laos, and Flore du Vietnam.

PALACIOS needs *Macroptilium* from northern Mexico and southern USA. Offers same from Argentina. See also DREWES.

PASQUET (new Reader) is studying the morphology, isozymes, and seed proteins using electrophoresis (SQS PAGE) of *Vigna*, principally *V. unguiculata* and *V. subterranea*.

RAHMAN is studying protein extraction from *Canavalia ensiformis*. Needs seeds of *Sesbania aculeata* (about 100gm). Offers seeds of an African variety of *Sesbania* (probably *S. bispinosa*) and *C. ensiformis*. Would be grateful if a Reader could send him some reprints on methods of extraction and bioassay of Canavanine and Concanavalin-A from *C. ensiformis*.

SHAANKER (new Reader) has been funded to study the evolution of reproductive mechanisms. Needs *Leucaena* spp. seeds, especially those with polyads, and fixed leaves of *Dalbergia* spp.

SUN (new Reader) has in press *Study of Yunnan Mimosaceae*. Is contributing to the legumes of the *Flora of Yunnan*. Needs types and data and offers specimens and data.

THOTHATHRI is contributing the legumes to the Flora of India project.

TUCKER is studying development 1) of flowers normally missing organs in such genera as *Ateleia*, *Dialium*, *Saraca*, and *Swartzia*, and 2) of flowers showing proliferation of stamens and/or carpels among caesalpinioids and papilionoids, such as *Swartzia*. Needs material of the developmental series of inflorescences and flower buds in liquid fixative, especially Sophoreae and caesalpinioids from the tropics, e.g. *Acrocarpus*, *Aldina*, *Arcoa*, *Angylocalyx*, *Baphia*, *Cadia*, *Ceratonia*, *Cynometra*, *Cyathostegia*, *Dialium*, *Dimorphandra*, *Dussia*, *Labichea*, *Myroxylon*, *Ormosia*, *Poeppegia*, *Pterogyne*, *Sclerolobium*, and *Swartzia* (especially multicarpellate spp.).

VIERIRA is monographing *Crudia* of Central and South America. Needs herbarium specimens of *Crudia* from the study area.

VIJAYALAKSHMI needs seeds of *Psophocarpus palustris* and offers seeds of *Psophocarpus tetragonolobus*.

WATSON continues his work with the Caesalpinioideae and DELTA. Offers his Caesalpinioideae data on 5 1/4 inch diskettes in the format for online identification and information retrieval using Dallwitz's new program INTKEY.

WESTON (new Reader) needs viable seeds of any species of Liparieae and Podalyrieae and offers viable seeds of native Australian legumes.

WIERSEMA, KIRKBRIDE, and GUNN are preparing *Nomenclature of legumes (Fabaceae) in the USDA germplasm system* for publication as a USDA Technical Bulletin. 356 accepted genera will have their authority, subfamily, tribe, phylogenetic number, number of species, relevant comments, and synonyms, and 87 generic synonyms will be given with their authority. 3,507 accepted specific or subspecific taxa will have their authority, place of original publication, common names (in English), distribution, references, and synonyms, and 2,636 specific or subspecific synonyms will have their authority, place of original publication, relevant comments, and references.

YAKOVLEV has three books in preparation and has in press *Plants of Central Asia: Leguminosae, Part I*.

NODULATION AND NITROGEN FIXATION

Joseph H. Kirkbride, Jr.

The first appearance of this column in the May 1988 *Bean Bag* was positively repounded to, particularly by CORBY. The following table presents new nodulation reports available in the literature or from CORBY since late 1984. This information will be included in the ILDIS database. All readers or other interested persons are urged to send nodulation reports not in Allen and Allen (1981) to the editors for inclusion in this column. The scientific names used in the reports also will be used in the column with minor corrections in spelling and authorities; if a scientific name is, in general, considered to be a synonym, the correct name for the taxon will follow in parentheses. Other information or notices concerning nodulation and nitrogen fixation will be included.

Legume Nodulation Reports not in Allen and Allen (1981)

Taxon	Status ¹	Nodule ² Shape	Source ³
<i>Acacia aulacocarpa</i> Cunn. ex Benth.	+	Mu	5
<i>Acacia farnesiana</i> (L.) Willd.	-		8
<i>Acacia holosericea</i> Cunn. ex G. Don	-		8
<i>Acacia juncifolia</i> Benth.	+	As	5
<i>Acacia platycarpa</i> F. Muell.	+	As	5
<i>Acacia polyphylla</i> DC.	+	G1	7
<i>Acacia stenophylla</i> Cunn. ex Benth.	+	As	5
<i>Acacia tomentosa</i> Willd.	+		10
<i>Acosmium lentiscifolium</i> Schott in Spreng.	-		6
<i>Acrocarpus fraxinifolius</i> W. & A.	-		5
<i>Adenanthera pavonina</i> var. <i>microsperma</i> (Teysm. & Binn.) I. Nielson	-		7
<i>Aeschynomene lateritia</i> Harms	+	Ae	5
<i>Aeschynomene pfundi</i> Taub.	+	Ae	5
<i>Affonsea bullata</i> Benth.	+	Mu	7
<i>Albizia falcataria</i> (L.) Fosb. (= <i>Parasericanthus falcataria</i> (L.) I. Nielson)	+		8
<i>Albizia kalkora</i> (Roxb.) Prain	-		8
<i>Albizia odoratissima</i> (L.f.) Benth.	-		8
<i>Albizia guachapele</i> (H.B.K.) Dugand	+	CrB	6
<i>Albizia polycephala</i> (H.B.K.) Killip	+	As	5

<i>Albizia polycephala</i> (H.B.K.) Killip	+	CrB	6
<i>Albizia polyphylla</i> (Benth.) Killip	+	CrB	7
<i>Albizia sassa</i> (Willd.) Macbr.	+	CrB	6
<i>Alysicarpus heterophyllus</i> (Baker) Jafri & Ali	+		3
<i>Alysicarpus pubescens</i> Law.	+		10
<i>Amburana acreana</i> (Ducke) A.C. Smith	-		7
<i>Amburana cearensis</i> (Allem.) A.C. Smith	-		6
<i>Amorpha californica</i> Nutt.	+	As	5
<i>Amorpha nana</i> Brouss. ex Willd.	+	De	5
<i>Anagyris latifolia</i>	+	Mu	5
<i>Andira anthelmia</i> (Vell.) Macbr.	+	As	7
<i>Andira fraxinifolia</i> Benth.	+	As	6
<i>Andira frondosa</i> Benth.	+	As	6
<i>Andira legalis</i> (Vell.) Toledo	+	As	6
<i>Andira nitida</i> Mart.	+	As	7
<i>Andira racemosa</i> Lam.	+	As	7
<i>Andira retusa</i> (Poir.) H.B.K.			
(= <i>Andira surinamensis</i> (Bondt.) Splitz ex Pulle)	+	As	5
<i>Anthyllis barba-jovis</i> L.	+	De	5
<i>Anthyllis macrocephala</i> Wend.	+	De	5
<i>Anthyllis tetraphyllis</i> L.	+	De	5
<i>Aotus ericoides</i> (Vent.) G. Don	+	As	5
<i>Apuleia leiocarpa</i> (Vog.) Macbr.	-		6
<i>Arachis monticola</i> Krapov. & Rig.	+	De	5
<i>Arachis pusilla</i> Benth.	+	De	5
<i>Argyrobium roseum</i> (Camb.) Jaub. & Spach			
subsp. <i>orthnithopodioides</i> (Jaub. & Spach.) Jafri & Ali	+		4
<i>Argyrobium zanonii</i> (Turra) P. Ball	+	Cr	5
<i>Aspalathus ciliaris</i> L.	+	Cr	5
<i>Aspalathus recurva</i> Benth.	+	Cr	5
<i>Astragalus ammophilus</i> Kar. & Kir.	+		4
<i>Astragalus campylosema</i> Boiss.	+	As	5
<i>Astragalus centralpinus</i> Braun-Blanquet	+	As	5
<i>Astragalus cimbicarpus</i>	+	Cr	5
<i>Astragalus leontinus</i> Wulfen	+	As	5
<i>Astragalus leucopsis</i>	+	As	5
<i>Astragalus roemerii</i> Simonkai	+	As	5
<i>Astragalus tribuloides</i> Benth. ex Bunge	+		4
<i>Ateleia glazioviana</i> Baill.	+	As	6
<i>Atylosia platycarpa</i> Benth.	+		4
<i>Atylosia sericea</i> Benth.	+		10
<i>Bauhinia esculenta</i> Burchell	-		5
<i>Bauhinia forficata</i> Link.	-		6
<i>Bauhinia longifolia</i> (Bong.) Steud.	-		7
<i>Bauhinia macrostachya</i> Benth.	-		6
<i>Bauhinia macrostachya</i> (Raddi) Macbr.	-		7
<i>Bauhinia picta</i> DC.	-		6
<i>Bauhinia variegata</i> L. var. <i>candida</i> Voigt	-		6
<i>Bowdichia virgilioides</i> H.B.K.	+	Cr	6
<i>Brachysema chambersii</i> (F. Muell.) Benth.	+	As	5

<i>Brongniartia intermedia</i> Moric.			
(= <i>Brongniartia lupinoides</i> (H.B.K.) Taub.)	+	As	5
<i>Brownea longipedicellata</i> Huber	-		7
<i>Butea monosperma</i> (Lam.) Taub.	±		10
<i>Cadia varia</i> L'Hérit. (= <i>Cadia purpurea</i> (Picc.) Ait.)	+		5
<i>Caesalpinia bonduc</i> (L.) Roxb.	-		6
<i>Caesalpinia echinata</i> Lam.	-		6
<i>Caesalpinia ferrea</i> Mart. ex Tul. var. <i>leiostachya</i> Benth.	-		6
<i>Caesalpinia ferrea</i> Mart. ex Tul. var. <i>parvifolia</i> Benth.	-		6
<i>Caesalpinia peltophoroides</i> Benth.	-		6
<i>Caesalpinia pyramidalis</i> Tul.	-		7
<i>Calliandra confusa</i> Sprague & Riley	+	As	5
<i>Calliandra emarginata</i> (Humb. & Bonpl. ex Willd.) Benth.	-		8
<i>Calliandra harrisii</i> (Lindl.) Benth.	+	Cr	7
<i>Calophaca tianshanica</i> (B. Fedtsch.) Suav.	+		5
<i>Calopogonium caeruleum</i> (Benth.) Sauv.	+	Ae	5
<i>Campylotropis macrocarpa</i> (Bunge) Rehder	+	De	5
<i>Canavalia rosea</i> (Sw.) DC.	+	Mu	5
<i>Caragana brevispina</i> Royle ex Benth.	+	As	5
<i>Caragana decorticans</i> Hemsley	+	As	5
<i>Cassia bakeriana</i> Craib.	-		6
<i>Cassia feruginea</i> (Schrad.) Schrad. ex DC.	-		6
<i>Cassia kleinii</i> W. & A.	+		10
<i>Cassia leptophylla</i> Vog.	-		6
<i>Cassia moschata</i> H.B.K.	-		6
<i>Cassia purpurea</i> Roxb. ex Lindl. (= <i>Senna</i>)	+		3
<i>Cassia renigera</i> Wall.	-		6
<i>Cassia roxburghii</i> DC.	-		3
<i>Castanospermum australe</i> Cunn. & C. Fraser ex Hook.	-		5
<i>Cenostigma gardnerianum</i> Tul.	-		7
<i>Cenostigma macrophyllum</i> Tul.	-		6
<i>Cenostigma tocaninum</i> Ducke	-		7
<i>Centrolobium paraense</i> Tul.	+	Ae	7
<i>Chamaecrista asplenifolia</i> (IB) IB	-		6
<i>Chamaecrista ensiformis</i> (Vell.) IB var. <i>ensiformis</i>	-		6
<i>Chamaecrista ensiformis</i> (Vellozo) IB var. <i>ensiformis</i>	+	As	6
<i>Chamaecrista ramosa</i> (Vog.) IB	+	As	7
<i>Chesneya ternatea</i> (Korsh.) M. Popov	+	As/Cr	5
<i>Chorizema cordatum</i> Lindley (= <i>Chorizema ilicifolium</i> Labill.)	+	As	5
<i>Cicer pinnatifidum</i> Jaub. & Spach	+	As	5
<i>Coelidium fourcadei</i> Compton (= <i>C. parvifolium</i> (Thunb.) Druce)	+	As	5
<i>Colutea orientalis</i> Miller	+	Mu	5
<i>Copaifera langsdorfii</i> Desf.	-		6
<i>Copaifera trapezifolia</i> Hayne	-		6
<i>Cratylia hypargyrea</i> Mart.	+	De	7
<i>Crotalaria albida</i> Hayne	+		10
<i>Crotalaria calycina</i> Schrank	+		10
<i>Crotalaria lasiocarpa</i> Polhill	+	Cr	5
<i>Crotalaria leptostachya</i> Benth.	+		10
<i>Crotalaria triquetra</i> Dalz.	+		10
<i>Cullen lachnostachys</i>	+	De	5

<i>Cullen leucantha</i>	+	De	5
<i>Cullen martinii</i>	+	De	5
<i>Cyclolobium vecchi</i> A. Samp. ex Hoehne	+	As	7
<i>Dahlstedtia pinnata</i> (Benth.) Malme	+	Mu	6
<i>Dahlstedtia pentaphylla</i> (Taub.) Burk.	-		7
<i>Dalbergia brasiliense</i> Vog.	+	Ae	7
<i>Dalbergia decipularis</i> Rizz. & Mattos	+	Ae	7
<i>Dalbergia frutescens</i> (Vell.) Britt.	+	Ae	6
<i>Dalbergia glaucescens</i> (Mart. ex Benth.) Benth.	+	Ae	6
<i>Dalbergia lanceolaria</i> L.f.	+	De	5
<i>Dalbergia lanceolata</i> L.	+		10
<i>Dalbergia miscolobium</i> Benth.	+	Ae	7
<i>Dalbergia riparia</i> (Mart.) Benth.	+	Ae	7
<i>Dalbergia villosa</i> Benth.	+	Ae	7
<i>Daniellia oliveri</i> (Rolfe) Hutch. & Dalziel	-		5
<i>Daviesia acicularis</i> Sm.	+	As	5
<i>Daviesia mimosoides</i> R. Br.	+	As	5
<i>Delonix regia</i> (Boj. ex Hook.) Raf.	+		8
<i>Desmodium podocarpum</i> DC.	+		4
<i>Desmodium sandwicense</i> E. Meyer	+	De	5
<i>Dialium guianense</i> (Aubl.) Sandw.	-		6
<i>Dialium guineense</i> Willd.	-		7
<i>Dimorphandra exaltata</i> Schott	+	CrB	6
<i>Dimorphandra mollis</i> Benth.	+	G1	6
<i>Dimorphandra vernicosa</i> Benth.	+	E1	7
<i>Dimorphandra wilsonii</i> Rizz.	+	G1	6
<i>Dioeclea glycinoides</i> hort. (= <i>Camptosema rubicundum</i> Hook. & Arn.)	+	De	5
<i>Diptotropis incexis</i> Rizz. & Matt.	+	CrS	6
<i>Dipteryx alata</i> Vog.	-		5
<i>Dipteryx punctata</i> (Blake) Amsoff.	-		7
<i>Elizabetha durissima</i> Ducke	-		7
<i>Elizabetha paraensis</i> Ducke	-		7
<i>Elizabetha princeps</i> Schomb. ex Benth.	-		7
<i>Elizabetha speciosa</i> Ducke	-		7
<i>Enterolobium gummiferum</i> (Mart.) Macbr.	+	CrB	6
<i>Enterolobium maximum</i> Ducke	+	CrB	7
<i>Enterolobium mongollo</i> (Vell.) Mart.	+	CrB	6
<i>Erythrina barqueroana</i> Kruk. & Bar.	+	De	7
<i>Erythrina bogatensis</i> hort. (This name never validly published.)	+	As/De	5
<i>Erythrina falcata</i> Benth.	+	Ae	6
<i>Erythrina folkersii</i> Krukoff & Moldenke	+	Ae	6
<i>Erythrina hondurensis</i> Standl.	+	Ae	6
<i>Erythrina lanceolata</i> Standl.	+	Ae	6
<i>Erythrina orientalis</i> (L.) Merr. (= <i>Erythrina variegata</i> L.)	+		8
<i>Erythrina senegalensis</i> DC.	+	Mu	5
<i>Erythrina stricta</i> Roxb.	+		10
<i>Erythrina suberosa</i> Roxb.	+		10
<i>Erythrina verna</i> Vell.	+	Ae	6
<i>Erythrina vespertilio</i> Benth.	+	De/Mu	5
<i>Euchresta japonica</i> Benth.	+		5
<i>Eutaxia microphylla</i> (R. Br.) J. Black	+	As	5

<i>Exostyles venusta</i> Schott ex Spr.	-		7
<i>Factorovskya aschersoniana</i> (Urb.) Eig	+	Cr	5
<i>Gastrobium laytoni</i> J. White	+	As	5
<i>Genista cinerea</i> (Villars) DC.	+	Cr	5
<i>Geoffroea decorticans</i> (Gillies ex Hook. & Arn.) Burkart	+	De	5
<i>Gliricidia sepium</i> (Jacq.) Steud.	-		8
<i>Glycine schliebenii</i> Harms (= <i>Ophrestia radicata</i> (A. Rich.) Verdc. var. <i>schliebenii</i> (Harms) Verdc.)	+	De	5
<i>Glycyrrhiza uralensis</i> Fischer ex DC.	+	Cr	5
<i>Gompholobium latifolium</i> Sm.	+		5
<i>Goniorrhachis marginata</i> Taub.	-		6
<i>Grazielodendron rio-docensis</i> Lima	-		6
<i>Havardia mexicana</i> (Rose) Britton & Rose	+	As	5
<i>Hebostigma cubense</i> (Kunth) Urban	+	As	5
<i>Hesperolaburnum platycarpum</i> (Maire) Maire	+		5
<i>Hovea longifolia</i> R. Br.	+	As	5
<i>Humularia welwitschii</i> (Taub.) Duvign.	+	Ae	5
<i>Hylocodendron gabunense</i> Taub.	-		5
<i>Hymenaea aurea</i> Lee & Lang.	-		6
<i>Hymenaea rubriflora</i> Ducke var. <i>rubriflora</i>	-		6
<i>Hymenocarpus circinnatus</i> (L.) Savi	+	De	5
<i>Hymenolobium alagoanum</i> Ducke var. <i>parvifolium</i> Lima	+	As	6
<i>Hymenolobium janeirense</i> Kuhlmann	-		7
<i>Hypocalyptus oxalidifolius</i> (Sims) Baill.	+	As	5
<i>Indigofera cassioides</i> Rottler ex DC.	+		10
<i>Indigofera hochstetteri</i> Baker	+		2
<i>Indigofera oblongifolia</i> Forsk.	+		1
<i>Inga capitata</i> Desv.	+	Mu	6
<i>Inga cordistipulata</i> Mart.	+	Mu	7
<i>Inga fagifolia</i> (L.) Benth.	+	Mu	7
<i>Inga hispida</i> Schott	+	Mu	7
<i>Inga lenticifolia</i> Benth.	+	Mu	7
<i>Inga luschnathiana</i> Benth.	+	Mu	6
<i>Inga maritima</i> Benth.	+	Mu	7
<i>Inga nobilis</i> Willd.	+	De/Mu	5
<i>Inga nuda</i> Salzm.	+	Mu	6
<i>Inga sessilis</i> Mart.	+	Mu	6
<i>Inga striata</i> Benth.	+	Mu	7
<i>Isobertlinia angolensis</i> (Benth.) Hoyle & Brenan	-		5
<i>Jacksonia sericea</i> Benth.	+	As/Cr	5
<i>Kennedia retrorsa</i> Hemsley	+	De	5
<i>Kennedia rubicunda</i> (Schneev.) Vent.	+	Mu	5
<i>Lamprolobium fruticosum</i> Benth.	+	Cr	5
<i>Lathyrus emodii</i> (Wall. ex Fritsch) Ali	+		4
<i>Lathyrus humilis</i> (Ser.) Fischer ex Sprengel	+		4
<i>Lens peruviana</i>	+	Cr	5
<i>Lespedeza daurica</i> (Laxm.) Schindler	+	De	5
<i>Lespedeza x divaricata</i> (Nakai) T. B. Lee	+	De	5
<i>Lespedeza maximowczii</i> C. Schneider	+	De	5
<i>Lespedeza schlindleri</i> Léveillé	+	De	5
<i>Leucaena lanceolata</i> S. Watson	+	As	5

<i>Leucaena retusa</i> Benth.	+	As	5
<i>Lonchocarpus costatus</i> Benth.	+	Mu	6
<i>Lonchocarpus filipes</i> Benth.	+	Mu	7
<i>Lonchocarpus guilleminianus</i> (Tul.) Malme	+	Mu	6
<i>Lonchocarpus leucanthus</i> Burk.	+	Mu	7
<i>Lonchocarpus muehlbergianus</i> Hassl.	+	Mu	7
<i>Lonchocarpus punctatus</i> Kunth	+	De	5
<i>Lonchocarpus spruceanus</i> Benth.	+	Gl	7
<i>Lonchocarpus virgilioides</i> Benth.	+	Mu	7
<i>Lophocarpinia aculeatifolia</i> (Burkart) Burkart	+		5
<i>Lotus collinus</i> (Boiss.) Heldr.	+	De	5
<i>Lotus glinoides</i> Del.	+	De	5
<i>Lotus sessilifolius</i> DC.	+	De	5
<i>Lotus spectabile</i> Choisy	+	De	5
<i>Luetzelburgia auriculata</i> (Fr. Allem.) Ducke	-		7
<i>Luetzelburgia guaissara</i> Toledo	-		7
<i>Lupinus hirsutissimus</i> Benth.	+	Lu	5
<i>Lysiloma latisiliquum</i> (L.) Benth.	+	As	5
<i>Machaerium aculeatum</i> Raddi	+	Ae	6
<i>Machaerium angustifolium</i> Vog.	+	Ae	7
<i>Machaerium brasiliense</i> Vog.	+	Ae	7
<i>Machaerium fulvovenosum</i> Lima	-		6
<i>Machaerium gracile</i> Benth.	+	Ae	7
<i>Machaerium hirtum</i> Vell.	+	Ae	7
<i>Machaerium incorruptibile</i> Fr. Allem.	+	De	5
<i>Machaerium nyctitans</i> (Vell.) Benth.	+	Ae	6
<i>Machaerium pedicellatum</i> Vog.	+	Ae	7
<i>Machaerium stipitatum</i> Vog.	+	Ae	7
<i>Machaerium triste</i> Vog.	+	Ae	7
<i>Machaerium villosum</i> Vog.	+	Ae	7
<i>Macrolobium acaciaefolium</i> Benth.	-		7
<i>Macrolobium latifolium</i> Vog.	-		6
<i>Melanoxylon brauniae</i> Schott	+	As	6
<i>Mezoneuron angolense</i> Oliv.	-		5
<i>Millettia atropurpurea</i> (Wallich) Benth. (= <i>Whitfordiodendron atropurpurea</i> (Wallich) Merr.)	-		8
<i>Millettia grandis</i> (E. Meyer) Skeels	+	De	5
<i>Millettia thonningii</i> (Schum.) Baker	+	De	5
<i>Mimosa apariciana</i> Burk.	+	As/Cr	7
<i>Mimosa artemisiana</i> Hering. & Paula	+	Gl	7
<i>Mimosa flocculosa</i> Burk.	+	As/Cr	7
<i>Mimosa laticifera</i> Rizz. & Mattos	+	As	5
<i>Mimosa laticifera</i> Rizz. & Mattos	+	Gl	7
<i>Moldenhawera floribunda</i> Schrad.	+	As	6
<i>Mucuna birdwoodiana</i> Tutcher	+	De/Mu	5
<i>Mucuna monosperma</i> DC.	+		10
<i>Mucuna nigricans</i> (Lour.) Steud.	+		4
<i>Muelleranthus trifoliolatus</i> Hutch. ex A. Lee	+	As/Cr	5
<i>Myrocarpus fastigiatus</i> Fr. Allem.	-		6
<i>Myrocarpus frondosus</i> Fr. Allem.	±		6
<i>Myrocarpus leprosus</i> Pickel	-		6

<i>Myroxylon peruiferum</i> L.f.	-		6
<i>Neuradolphia volubilis</i> (Willd.) Britton	+		11
<i>Newtonia contorta</i> (DC.) Burkart	+	Cr	6
<i>Newtonia nitida</i> (Benth.) Brenan	+	As	7
Nielsen D. (<i>Pithecelobium discolor</i> Britton)	+	As	5
<i>Onobrychis argentea</i> Boiss.	+	As	5
<i>Onobrychis grandis</i> Lipsky	+	As	5
<i>Onobrychis petrea</i> (Bieb. ex Willd.) Fischer	+	As/Cr	5
<i>Onobrychis sibirica</i> Turcz. ex Besser (= <i>Onobrychis arenaria</i> (Kit) DC. subsp. <i>sibirica</i> (Turcz. ex Besser) P. Ball)	+	Cr	5
<i>Orbexillum lanceolatum</i> (= <i>Psoralidium lanceolatum</i> (Pursh) Rydberg)	+	De	5
<i>Orbexillum macrostachyum</i> (= <i>Hoita macrostachya</i> (DC.) Rydberg)	+	De	5
<i>Ormocarpum sennoides</i> DC.	+	Ae	7
<i>Ormosia krugii</i> Urban	+		11
<i>Ormosia nitida</i> Vog.	+	Mu	6
<i>Oxylobium robustum</i> Joy Thomps.	+	As	5
<i>Oxytropis pyrenaica</i> Godron & Gren.	+	As	5
<i>Pachyrhizus angulatus</i> A. Rich.	+	De/Mu	5
<i>Pachyrhizus tuberosus</i> (Lam.) Sprengel	+	Mu	5
<i>Parapiptadenia pterosperma</i> (Benth.) Brenan	+	Cr	6
<i>Parkia decussata</i> Ducke	-		6
<i>Parkia gigantocarpa</i> Ducke	-		6
<i>Parkia inundabilis</i> Ducke	-		7
<i>Parkia nitida</i> Miq.	-		7
<i>Parkia platycephala</i> Benth.	-		6
<i>Peltogyne angustiflora</i> Ducke	-		6
<i>Peltogyne confertiflora</i> (Hayne) Benth.	-		6
<i>Peltophorum dubium</i> (Spreng.) Taub.	-		6
<i>Pericopsis mooniana</i> (Thwaites) Thwaites	+	As	5
<i>Phaseolus filiformis</i> Benth.	+	Mu	5
<i>Phyllocarpus riedellii</i> Tul.	±		6
<i>Piptadenia gonoacantha</i> (Mart.) Macbr.	+	Cr	6
<i>Piptadenia paniculata</i> Benth.	+	Gl	7
<i>Piptanthus concolor</i> Craib (= <i>Piptanthus nepalensis</i> (Hook.) D. Don)	+	Mu	5
<i>Piptanthus leiocarpus</i> Stapf (= <i>Piptanthus nepalensis</i> (Hook.) D. Don)	+	As	5
<i>Pithecellobium avaremotemo</i> Mart.	+	Mu	7
<i>Pithecellobium diversifolium</i> Benth.	+	Mu	7
<i>Pithecellobium edwallii</i> Hoehne	+	Mu	7
<i>Pithecellobium foliosum</i> Benth.	+	Mu	6
<i>Pithecellobium inaequale</i> (H.B.K.) Benth.	+	Mu	7
<i>Pithecellobium inopinatum</i> Harms	+	CrB	7
<i>Pithecellobium jiringa</i> (Jack) Prain	-		8
<i>Pithecellobium lusorium</i> (Vell.) Benth.	+	Mu	6
<i>Pithecellobium pedicellare</i> (DC.) Benth.	+	Mu	6
<i>Platycyamus regnellii</i> Benth.	-		6
<i>Platycyamus regnellii</i> Benth.	+		5
<i>Platymiscium floribundum</i> Vog.	+	Ae	6
<i>Platypodium elegans</i> Vog.	+	Ae	6
<i>Platythymenia reticulata</i> Benth.	+	Mu	6
<i>Poecilanthe grandiflora</i> Benth.	+	As	6
<i>Poecilanthe parviflora</i> Benth.	+	As	6

<i>Poeppegia procera</i> Presl.	-	6
<i>Pongamia pinnata</i> (L.) Pierre	-	8
<i>Priestleya hirsuta</i> (Thunb.) DC.	+ As	5
<i>Priotropis cystisoides</i> W. & A.	+ As	10
<i>Prosopis alba</i> Griseb.	+ As	5
<i>Prosopis farcta</i> (Sol. ex Russell) J. F. Macbr.	+ As	5
<i>Prosopis pubescens</i> Benth.	+ As	5
<i>Psoralea repens</i> L.	+ De	5
<i>Pterocarpus macrocarpus</i> Kurz	+ De	5
<i>Pterocarpus violaceus</i> Vog.	-	6
<i>Pterodon pubescens</i> Benth.	-	6
<i>Pultenaea altissima</i> F. Muell.	+ As/Mu	5
<i>Pultenaea obovata</i> Benth.	+ As	5
<i>Rhynchosia himalensis</i> Benth. ex Baker	+ Mu	4
<i>Rhynchosia luteola</i> (Hiern) K. Schum.	+ Mu	5
<i>Rhynchosia parviflora</i> DC.	+ De	5
<i>Rhynchosia pulverulenta</i> Stocks	+ De	1
<i>Rhynchosia rothii</i> Benth. ex Ait.	+ Mu	10
<i>Robynsiophyton vanderystii</i>	+ As	5
<i>Schizolobium amazonicum</i> Ducke	-	7
<i>Sclerolobium pilgerianum</i> Harms	+ G1	7
<i>Sclerolobium rugosum</i> Mart. ex Benth.	+ Mu	7
<i>Senna auriculata</i> Roxb.	-	1
<i>Senna australis</i> (Vell.) IB	-	7
<i>Senna aversiflora</i> (Her.) IB	-	7
<i>Senna cana</i> (Nees & Mart.) IB var. <i>cana</i>	-	6
<i>Senna holosericea</i> (Fresen.) Greuter	-	1
<i>Senna macranthera</i> (Collad.) IB	-	6
<i>Senna multijuga</i> (L.C. Rich.) IB	-	6
subsp. <i>multijuga</i> var. <i>verrucosa</i> (Vog.) IB	-	6
<i>Senna septemtrionalis</i> (Viviani) IB	-	6
<i>Senna silvestris</i> (Vell.) IB	-	7
subsp. <i>silvestris</i> var. <i>sapindifolia</i> (Vog.) IB	-	7
<i>Senna spectabilis</i> (DC.) IB var. <i>ensifformis</i>	-	6
<i>Senna spectabilis</i> (DC.) IB var. <i>spectabilis</i>	-	6
<i>Senna splendida</i> (Vog.) IB var. <i>splendida</i>	-	6
<i>Senna surattensis</i> (Burm. f.) IB	-	4
<i>Senna tora</i> (L.) Roxb.	+ As	8
<i>Senna velutina</i> (Vog.) IB	-	6
<i>Sesbania cochinchinensis</i> Kurz. (= <i>Sesbania javanica</i> Miq.)	+ Mu	5
<i>Sesbania concolor</i> Gillet	+ De/Mu	3
<i>Sesbania punicea</i> (Cav.) Benth.	+ De/Mu	5
<i>Sindora cochinchinensis</i> Baill.	-	7
<i>Smithia salsuginea</i> Hance	+ As	10
<i>Sophora alopecuroides</i> L.	+ As	5
<i>Sophora mollis</i> (Royle) Baker subsp. <i>griffithii</i> (Stocks) Ali	+ As	4
<i>Stauracanthus genistoides</i> (Brot. Samp.	+ As	5
<i>Stryphnodendron pulcherrimum</i> (Willd.) Hochr.	-	6
<i>Swartzia acutifolia</i> Vog.	+ As	6
<i>Swartzia apetala</i> Raddi	+ G1	7
<i>Swartzia flaemingii</i> Raddi	+ As	6

<i>Swartzia langsdorffii</i> Raddi	+	As	6
<i>Swartzia myrtifolia</i> J.E. Smith var. <i>elegans</i> (Schoot) Cowan	-		6
<i>Swartzia pinnata</i> Willd.	-		8
<i>Sweetia fruticosa</i> Spreng.	-		6
<i>Tachigali paniculata</i> Aubl. var. <i>alba</i> (Ducke) Dwyer	+	Mu	7
<i>Tachigalia multijuga</i> Benth.	+	CrS	6
<i>Tephrosia tinctoria</i> Pers.	+		10
<i>Tephrosia pauciflora</i> Grah.	+		10
<i>Tephrosia strigosa</i> (Dalz.) Sant. & Maheshw	+		1
<i>Tetrapleura tetraptera</i> (Schum.) Taub.	-		5
<i>Tetrapleura thonningii</i> Benth.	-		6
<i>Thermopsis macrophylla</i> Hook. & Arn.	+	Cr	5
<i>Trifolium argutum</i> Sol.	+	Cr	5
<i>Trifolium aureum</i> Pollich	+	Cr	5
<i>Trifolium carmeli</i> Boiss.	+		4
<i>Trifolium pilulare</i> Boiss.	+	Cr	5
<i>Trigonella uncatata</i> Boiss. & Noe	+		4
<i>Uraria crinita</i> (L.) Desv. ex DC.	+	De	5
<i>Uraria picta</i> (Jacq.) Desv. ex DC.	+	Mu	5
<i>Vatairea heteroptera</i> (Fr. Allem.) Ducke	-		7
<i>Vataireopsis araroba</i> (Aguiar) Ducke	-		6
<i>Vavilovia formosa</i> (Steven) Fed.	+	Cr	5
<i>Vigna triphylla</i> (R. Wilczek) Verdc.	+	De	5
<i>Virgilia divaricata</i> Adamson	+	As	5
<i>Xanthocercis zambesiaca</i> (Baker) Dumaz-le Grand	+		5
<i>Zollernia falcata</i> Nees	-		6
<i>Zollernia ilicifolia</i> (Brongn.) Vog.	-		6

¹ Status: +, root nodules reported as present; -, root nodules reported as absent; ±, the nodulation report conflicts with Allen and Allen (1981).

² Nodule shape: Ae, aescychnomenoid; As, astragaloid (now referred to as caesalpinoid by Corby, in press³); Cr, crotalarioid; CrB, branched crotalarioid; CrS, simple crotalarioid; De, desmodioid; Gl, globose; Lu, lupinoid; Mu, mucunoid (Corby, in press; Faria et al., 1984, 1987³).

³ Sources:

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