

Interpretation and Implementation of the Convention
Trade in Plant Specimens

NURSERY REGISTRATION FOR ARTIFICIALLY PROPAGATED APPENDIX-I SPECIES

This document has been prepared by the CITES Secretariat at the request and under the guidance of the Plants Committee.

Introduction

It has been widely recognized that the artificial propagation of endangered plant species is an important tool for their conservation. Plants can relatively easily be propagated in large quantities. Thus they are available for many people who wish to keep them in their private collections. This applies in particular for such large and interesting families as the Cactaceae, Orchidaceae and Zamiaceae. Once the artificially propagated specimens are available in large quantities, there is no longer a need to collect them from the wild. An additional advantage of propagation is that artificially propagated plants are generally well established, so that even in international trade there is little loss during transport. Wild-collected plants generally lose their roots during the collecting process from the wild, and are also subject to physiological stress (in particular drought). Consequently many of them die before they even have a chance to re-establish themselves in the collections of the buyer in the importing countries.

There is a very large quantity of hybrid plants in trade (much larger than the quantity of artificially propagated specimens of botanical species), many of which have species in their ancestry listed in the CITES appendices, which is why they are covered by the Convention. During the past meetings of the Conference of the Parties, a number of measures have been taken to facilitate the trade in artificially propagated specimens of plants listed in Appendices I and II and of hybrids of species listed in all the appendices (Resolution Conf. 4.16, Resolution Conf. 8.17). In addition, some of these decisions were lately subject to adoption through the postal procedure as amendments to Appendices I and II which entered into force on 16 April 1993.

The trade

Generally, nurseries can be grouped into the following categories:

1. Those which produce for the wholesale market.

These nurseries produce large quantities of a variable number of species and are generally located in regions with favourable climates (Canary Islands, southern parts of the USA, and tropical regions). Their production is mainly exported in relatively large quantities to other nurseries, which propagate the plants further, or to enterprises which only sell of plants.

2. Those which produce for the retail market.

These nurseries produce smaller quantities of generally a much larger variety of species than those mentioned above. Their production is mainly sold to the amateur collector. Generally these nurseries combine a focus on the national market with a distribution world-wide.

3. Those which do little production themselves, but which mainly sell products acquired from the above-mentioned nurseries.

These nurseries (in equipment housing facilities often not different from the ones mentioned above) mainly focus on national markets.

In addition there is a small group of traders involved in the international plant trade, who mainly act as middlemen, buying plants from nurseries in categories 1 and 2, and exporting them worldwide to category 3 as well as to large supermarket chains.

The registration system described in the present document is mainly aimed at the nurseries in categories 1 and 2, although it might, under certain conditions, also apply to the small group of traders.

With regard to the nurseries, another point should be taken into account as well. Any of the categories above can be further subdivided into nurseries that are located in the country of origin of the species that they are propagating, and nurseries located in other countries. Unfortunately, the possibility to abuse the facilitation of issuance of export documentation, as proposed in this nursery registration system, may be greater in the first sub-category than in the second one. It may therefore very well be that the Management Authority of a country of origin does not wish to introduce such a facilitation. Nevertheless, the Plants Committee strongly recommends that when a Party decides to register nurseries exporting artificially propagated specimens of species included in Appendix I, it does so with the intention of implementing all the responsibilities stipulated in Annex 2 to the attached draft resolution (Annex 1).

The possibility of using the phytosanitary certificate, or other types of certificate, or a label, for the export of artificially propagated specimens of species in Appendix II, as well as hybrids of species included in Appendix I (Resolution Conf. 8.17) strongly reduces the administrative procedures required for the issuance of acceptable permits. Because of this, not only does the Management Authority of the exporting country reduce its paperwork but, more importantly, it is also possible for the exporting nursery to respond rapidly to requests from its customers. During the process of consultation in the preparation of the attached draft resolution, comments received from exporting nurseries in several countries indicated that they refrained from large-scale propagation of CITES species because of the difficulties (in particular long delays) in obtaining the necessary documents. This applied in particular to the Appendix-I species, for which the above-mentioned simple procedures can not be used.

In order to avoid the large-scale propagation of Appendix-I species being abandoned completely, the Plants Committee deems it necessary to clearly link the proposed nursery registration with a facilitation of the procedures for issuing export documents. If a country is not willing to comply with this, it should then carefully consider whether it wishes to register any nursery.

Purpose of nursery registration

The attached draft resolution (Annex 1) for registration of nurseries artificially propagating specimens of species included in Appendix I does in some aspects follow the general approach of Resolution Conf. 8.15 regarding the

registration of captive–breeding operations. Deviations from the procedures outlined in the latter Resolution are largely caused by the essential differences between the definition of bred in captivity (Resolution Conf. 2.12) and the definition of artificially propagated [Resolution Conf. 8.17, paragraph a)]. Also the quantities of specimens that could be produced in a relatively short time is an important difference when comparing procedures for plants with those for animals.

The nursery registration, and the inspection associated with it, forms an important tool in conservation of rare plant species, in particular those listed in Appendix I, for the following reasons:

- Granting document facilitation to reliable nurseries is the only way to prevent them from giving up the artificial propagation of Appendix–I species, or to stop them from exporting these specimens under false names.
- Normally, every consignment should be inspected on export and on import, but in several countries such a great number of shipments arrive daily that it is very difficult for the controllers to decide what to inspect. Since shipments from registered nurseries would be easily recognized by their registration numbers, inspectors would have a means to set their priorities for shipments that need inspection.
- It is also hoped that this system of nursery registration will help to equalize the competition between nurseries in range States and those in importing countries, which until now have largely dominated the market in artificially propagated plants of Appendix–I species. In particular the requirement to prove the legal origin of the wild parental stock could turn out to be an important and positive element in ascertaining this equality.

In any case, nurseries should be registered only if they regularly export artificially propagated specimens of Appendix–I species. Nurseries that do not export or very infrequently export any of these specimens should not be registered with the CITES Secretariat. They should use the currently existing procedures.

It should be stressed that the suggested registration procedure will only be implemented successfully, to the benefit of the conservation of the wild populations of the species concerned, if the Parties are willing to implement the simplified procedures for the issuance of export permits. If not, the Parties should seriously consider whether the whole system of nursery registration should be abandoned.

Amendments to other Resolutions following the adoption of the draft resolution on Nursery Registration

The adoption of the draft resolution on nursery registration would have some consequences for two consolidated Resolutions (see document Doc. 9.19.2). Proposed changes to these are included in Doc. 9.30 Annex 2.

1. The consolidated Resolution on Permits and Certificates contains a number of requirements relating to permits for specimens originating from commercial captive–breeding operations. These requirements would also apply to the permits relating to specimens originating from nurseries that are artificially propagating specimens of species included in Appendix I.
2. The paragraph d) of the consolidated Resolution on Trade in Plants deals with the trade in salvaged plants.
The Plants Committee is of the opinion that registered nurseries should not be excluded from using salvaged plant specimens as parental stock for artificial propagation. It therefore proposes to add a reference to registered nurseries at the end of the paragraph d) iii) C).
3. The paragraph f) of the consolidated Resolution on Trade in Plants (originating from the former Resolution Conf. 5.15) deals with nursery registration.

Having been adopted in 1985, and never implemented, this text has lost most of its impact. It is therefore suggested to delete this paragraph following the adoption of the attached draft resolution (Doc. 9.30 Annex 1).

Doc. 9.30 Annex 1

DRAFT RESOLUTION OF THE CONFERENCE OF THE PARTIES
Guidelines for the Registration of Nurseries Exporting Artificially Propagated
Specimens of Appendix–I Species

RECOGNIZING that Article VII, paragraph 4, of the Convention provides that specimens of Appendix–I species artificially propagated for commercial purposes shall be deemed to be specimens included in Appendix II;

RECOGNIZING that the artificial propagation of plants is essentially different from captive breeding of animals, in particular with regard to the number of specimens produced, as well as, in most cases, with regard to the time span between subsequent generations, and therefore requires a different approach;

RECOGNIZING the rights that each Party holds over its own natural phylogenetic resources;

RECOGNIZING that the transfer of germplasm is regulated under the Global System for the Conservation and Utilization of Plant Genetic Resources (FAO);

RECOGNIZING that the artificial reproduction of specimens of species included in Appendix I could form an economic alternative to traditional agriculture in countries of origin, and could also increase conservation interest in the areas of natural distribution;

RECOGNIZING that the artificial propagation of specimens of species included in Appendix I, by making specimens readily available to all those interested, has a positive effect on the conservation status of the wild populations because it reduces the collecting pressure;

NOTING that Resolution Conf. 5.15, adopted at the fifth meeting of the Conference of the Parties (Buenos Aires, 1985), provided an initiative for plant–nursery registration but that no Party has ever informed the CITES Secretariat that it has implemented such registration;

RECALLING that a number of Resolutions have been adopted to facilitate the trade in artificially propagated specimens of species included in Appendix II and in hybrids of species included in Appendix I;

OBSERVING that such facilitation may also be necessary to ensure that the artificial propagation of species included in Appendix I will continue or be initiated;

RECOGNIZING that nurseries which are not registered may still continue exporting artificially propagated specimens of Appendix–I species using the standard procedures for obtaining export permits;

AWARE that a number of species currently included in Appendix I still occur in sizeable populations in the wild, so that the removal of a limited number of specimens for the purpose of use for parental stock may not be detrimental to their survival;

THE CONFERENCE OF THE PARTIES TO THE
CONVENTION

RESOLVES that

- a) the first and major responsibility for the registration of nurseries that, for export purposes, artificially propagate specimens of Appendix-I plant species shall rest with the Management Authority of each Party, in consultation with the Scientific Authority of that Party;
- b) any Management Authority that wishes to register any commercial nursery artificially propagating specimens of species included in Appendix I for export purposes shall provide to the Secretariat, for registration, all appropriate information to obtain, and maintain, the registration of each such nursery;
- c) artificially propagated Appendix-I specimens produced in registered nurseries may only be exported when:

- i) they are packed and labelled in such a way that they can not be mixed with artificially propagated or wild-collected Appendix-II and/or Appendix-III plants in the same consignment; and
 - ii) the CITES export permit clearly states the registration number attributed by the Secretariat and the name of the nursery of origin if it is not the exporter; and
- d) notwithstanding the right of each Party to remove a nursery within its jurisdiction from the Register, any Party that becomes aware of, and can demonstrate, a failure of a registered exporting nursery to comply satisfactorily with the requirements for registration, may propose to the Secretariat that this nursery be deleted from the Register, but the Secretariat will only make the deletion after consultation with the Management Authority of the Party in which the nursery is located; and

DIRECTS the Secretariat to critically evaluate any application for registration, and to compile and update a Register of Commercial Nurseries that, for export purposes, artificially propagate specimens of plant species included in Appendix I, on the basis of information received from the Parties, and to communicate this Register to the Parties.

Annex 1

Role of the Commercial Nursery

THE CONFERENCE OF THE PARTIES TO THE
CONVENTION

RESOLVES that the owner/manager of any commercial nursery seeking inclusion in the Secretariat's Register shall be responsible for providing to the Management Authority of the country in which it is located the following information:

1. name and address of the owner or manager of the nursery;
2. date of establishment;
3. description of the facilities and the propagation techniques;
4. description of the historical background of the nursery, in particular information on which species or plant groups have been propagated in the past;

5. taxa currently in propagation and an indication of the taxa which the nursery intends to propagate in the near future (Appendix I only);
6. description of the Appendix-I parental stock of wild origin, including quantities and evidence of legal acquisition (e.g. receipts, CITES documents, collecting permits, etc.);
7. expected annual production;
8. assessment of any perceived need for augmentation of the parental stock with specimens from the wild; and
9. quantities of specimens expected to be exported annually.

Annex 2

Role of the Management Authority

THE CONFERENCE OF THE PARTIES TO THE
CONVENTION

RESOLVES that each Management Authority shall perform the following functions:

- a) apply to the Secretariat to register a nursery artificially propagating and exporting specimens of Appendix-I species and provide the following:
 - i) information about the scientific names (and full synonymy) of the species concerned;
 - ii) a description of the facilities and propagation techniques of the nursery, as provided by the nursery in accordance with Annex 1; and
 - iii) a description of the inspection procedures used by the Management Authority to confirm the identity and the legal origin of the parental stock and any other specimens of Appendix-I species of wild origin, present in the nursery concerned;

- b) ensure that the number of specimens of wild origin in a registered nursery, designated as parental stock of species in Appendix I is not depleted by the disposal of specimens other than through natural causes, unless the Management Authority consents, on the request of the registered nursery, to the transfer of the parental stock (or of part thereof) to another registered exporting nursery;
- c) ensure that the registered exporting nurseries are inspected on an annual basis by a specialist from the Management or Scientific Authority or other qualified entity appointed by the Management Authority, to certify the size of the parental stock and the number of plants produced from it and that the nursery holds no other specimens of wild origin of Appendix-I species, and communicate the results of these inspections to the Secretariat before 15 May each year;
- d) design a simple procedure for the issuance of export permits to each registered nursery, in accordance with

Article VII, paragraph 4, of the Convention, and with Resolution Conf. 8.5. Such a procedure could involve the pre-issuance of CITES export permits on which:

- i) in box 12b, the registration number of the nursery is included; and
- ii) in box 5, at least the following information is included:

PERMIT VALID ONLY FOR ARTIFICIALLY PROPAGATED PLANTS AS DEFINED BY CITES RESOLUTION Conf. 8.17. VALID ONLY FOR THE FOLLOWING TAXA; and

RESOLVES also that each Management Authority may permit the parental stock of a registered nursery to be replenished or obtained from wild-collected specimens provided that **(see also below, note from Secretariat)**:

- a) to the satisfaction of its Scientific Authority and that of the country of origin it has been demonstrated that:
 - i) suitable specimens are not available from other, already existing stocks; and
 - ii) the remaining wild population would not be affected by such trade; or
- b) if the registered nursery is situated in a country where the species concerned does not occur naturally, the number of plants to be imported does not exceed five specimens per species or subspecies or natural variety,

unless the Scientific Authorities of the exporting and importing countries mutually agree on a higher number; or

- c) if the registered nursery is in a country where the species does occur naturally, the number of plants to be removed from the wild has been or will be determined by the Scientific Authority of the country concerned.

Notes from the Secretariat

Wild specimens of Appendix-I species may not be imported for commercial purposes. Nurseries, at least those to be registered, are commercial enterprises.

The intention of Resolution Conf. 5.10 is to restrict imports of wild-taken specimens of Appendix-I species for captive breeding and artificial propagation to be used for non-commercial purposes. It contains some general principles regarding the definition of 'primarily commercial purposes' and gives some examples for the guidance of Parties in their assessment of the non-commercial aspects of the intended use of the Appendix-I specimens to be imported.

In the opinion of the Secretariat, if the intention of the text under the second RESOLVES of this Annex is to allow nurseries to import wild-taken specimens for commercial production, this would be contrary to the provisions of the Convention.

Annex 3

Role of the Secretariat

THE CONFERENCE OF THE PARTIES TO THE CONVENTION

RESOLVES that the Secretariat shall perform the following functions:

- a) receive from Management Authorities and review applications for registration of nurseries that artificially propagate Appendix-I plant specimens for export;
- b) may send these applications to appropriate experts and the relevant regional representative in the Plants Committee for advice on their acceptability;
- c) when satisfied that a nursery meets all requirements, publish the name, the registration number and other particulars in its Register within 30 days after receipt of the report;
- d) when a nursery is not accepted for registration, provide the relevant Management Authority with a full explanation of the reasons for rejection and indicate the specific conditions that must be met before it can be accepted;

- e) when a re-application for registration of such a nursery is also rejected, provide the relevant Management Authority with a full explanation of the reasons for rejection and submit the application for evaluation to the Plants Committee, which may appoint an independent consultant;
- f) receive and review annual inspection reports on registered nurseries, provided by the Parties, and present summary conclusions to the Plants Committee for evaluation;
- g) delete the name of a nursery from its Register when requested to do so, in writing, by the responsible Management Authority; and
- h) receive and review information from Parties or other sources regarding failure of a registered nursery to comply satisfactorily with the requirements for registration, inform the Management Authority of the Party concerned and, after consultation of the Plants Committee, delete the operation from the Register if appropriate.

Doc. 9.30 Annex 2

Proposed Amendments to Consolidated Resolutions

1. Consolidated Resolution on Permits and Certificates:

- a) amend paragraph o) of the Annex so that it reads **(addition in bold)**:

The registration number of the operation, attributed by the Secretariat, when a permit involves a specimen of a species included in Appendix I, that originates from an operation practising breeding in captivity **or artificial**

propagation for commercial purposes (Article VII, paragraph 4, of the Convention), and the name of the operation when it is not the exporter; and

2. Consolidated Resolution on Trade in Plants:

- a) insert in paragraph d) iii) C) after the word "institution" the phrase ", or a registered nursery";
- b) delete paragraph f), on registration of nurseries.

Interpretation and Implementation of the Convention
Trade in Plant Specimens
 REVISION OF THE CONSOLIDATED RESOLUTION

This document has been prepared by the CITES Secretariat at the request of the Plants Committee.

The consolidated Resolution on Trade in Plants (see document Doc. 9.19.2) contains a number of paragraphs that have been copied from Resolutions adopted some ten years ago. Consequently some elements of the text need updating in order to increase the impact and the efficacy of the paragraphs concerned. Therefore the following changes are proposed by the Plants Committee.

Paragraph d) Regarding Trade in Salvaged Plant Specimens

The intention of this paragraph is to stress the need for protecting the sites of the currently remaining populations of rare species. If such protection is not possible *in situ*, the plants should be salvaged for *ex situ* conservation.

However, sub-paragraph iii) strictly limits the use of these specimens for non-commercial purposes. The Plants Committee recognizes the need for large-scale artificial propagation of any species of commercial interest, because this will assist in reducing the collecting pressure on the remaining populations. Also, the space available in non-commercial operations may be much too limited for the quantity of specimens needing to be salvaged. The Plants Committee felt that it should be possible for salvaged plants to be used for commercial propagation. In permitting such use, one may also expect that larger quantities of salvaged plants would find appropriate destinations.

It is therefore proposed to delete the last part of subparagraph iii) C), i.e. "and is not for primarily commercial purposes".

Paragraph e) Regarding Education about Plant Conservation through CITES

This text, having been adopted in 1985 has lost most of its impact for the following reasons.

- With the appointment, in 1990, of a Plants Officer at the Secretariat, more attention has been given to communicating information regarding the implementation of CITES to national and international organizations involved in plant trade.
- National and international associations of plant enthusiasts have become more and more aware of the specific requirements of CITES.

- The education of the general public as well as of botanical specialists has strongly improved through close co-operation between the CITES Secretariat and associations of botanic gardens and in particular Botanic Gardens Conservation International. Workshops on CITES are more and more being incorporated in the programmes of meetings of botanic gardens.

The Plants Committee, however, recognizes that there is still a great need for further improvement of education and information exchange on CITES plant issues, at both the national and international levels. It therefore proposes a new text for this paragraph, reflecting the current need for education as part of existing networks of information exchange.

Paragraph f) Regarding the Registration of Nurseries

The deletion of this paragraph is proposed in the draft resolution on nursery registration (see document Doc 9.30 Annex 1). However, if this draft is NOT adopted by the Conference of the Parties, it will be necessary to update the current text on nursery registration as it appears in the consolidated Resolution.

Sub-paragraph i) requires that registered nurseries not be allowed to trade in wild-collected plants. But, under CITES, the commercial trade in wild-collected specimens of species included in Appendices II and III is perfectly legal on the condition that appropriate CITES documents have been issued. It seems unjustified that those nurseries which artificially propagate plants **and legally** trade in wild-collected ones, and which are frequently situated in the countries of origin of the species concerned, should be excluded from this registration. The Plants Committee therefore proposes to delete this prohibition.

Sub-paragraph ii) refers to one particular type of certificate of artificial propagation only, as an alternative to the phytosanitary certificate. However, other types of certificates of artificial propagation may be used as well. The Plants Committee therefore proposes to delete this whole sub-paragraph.

Some editorial changes are also proposed.

Doc. 9.31 Annex

Proposed Amendments to the Consolidated Resolution on Trade in Plants

1. Delete the phrase "and is not for primarily commercial purposes" from paragraph d) iii) C) so that the newly proposed text reads:

import is by a bona fide botanic garden or scientific institution [, or a registered nursery];

- * the text between square brackets will only be added after the adoption of the draft resolution on nursery registration (Doc. 9.30).

2. Replace the full text of paragraph e) with the following:

e) **Regarding Education about Plant Conservation through CITES**

- i) **that Parties routinely provide updates of information on all aspects of CITES implementation for plants for publication in scientific, horticultural or plant trade journals and in the publications of plant associations;**

- ii) that Parties regularly provide updates of information on all aspects of CITES implementation to botanic gardens, tourist organizations and relevant non-governmental organizations for further dissemination to the general public;
 - iii) that Parties develop and maintain a good liaison with national plant-trade organizations, to inform them about all aspects of the implementation of CITES for plants, and to communicate to the Secretariat specific implementation problems presented by these national organizations, for consideration by the Plants Committee;
 - iv) that the Secretariat develop and maintain a good liaison with international plant-trade organizations and botanic garden associations (in particular with the International Association of Botanic Gardens and Botanic Gardens Conservation International); and
- v) that the Secretariat distribute information on the beneficial aspects of artificial propagation for the survival of natural populations and, where possible, promote such artificial propagation.
3. If the draft resolution on nursery registration is NOT adopted, replace the full text of paragraph f) with the following:
- f) Regarding the Registration of Nurseries
- i) that Parties consider, where appropriate to their circumstances, registering individual traders of artificially propagated plants of species in Appendix I, II or III, and taking adequate steps to inspect nursery premises whenever possible, and to inspect their trade catalogues, advertisements and other relevant literature; and
 - ii) that each Party adopting such a system inform the Secretariat accordingly.

Interpretation and Implementation of the Convention
Trade in Plant Specimens
 STANDARD REFERENCE FOR ORCHIDACEAE

This document has been prepared and submitted by the Vice-Chairman of the Nomenclature Committee. It provides information on the approach chosen for the preparation of the Standard Reference to the Names of Orchidaceae, the progress made, and the workplan for 1995–1997. For further details see document Doc. 9.16.

With the adoption of Resolution Conf. 8.19, the Conference of the Parties recommended the following:

- a) that the Nomenclature Committee prepare a standard reference for selected Orchidaceae genera in trade, providing information on species, with synonymy and the countries of distribution of recognized taxa;
- b) that the Vice-Chairman of the Nomenclature Committee co-ordinate the input needed from scientific institutions, monitor the progress of the work, and report annually to the Standing Committee, in consultation with the Chairman of the Nomenclature Committee;
- c) that recommendation 6. of the "Review of Significant Trade in Species of Plants Included in Appendix II of CITES" (document Doc. 8.31) serve as a basis for identifying priority orchid taxa for inclusion in a standard reference;
- d) that, upon acceptance by the Nomenclature Committee, the reference (or parts thereof) be presented to the Conference of the Parties for adoption as the standard reference for Orchidaceae; and
- e) that updated versions of the reference, as they become available, be reviewed and accepted at meetings of the Conference of the Parties.

At its third meeting (Chiang Mai, Thailand, November 1992) the Plants Committee extensively discussed a proposal by the Vice-Chairman of the Nomenclature Committee regarding the possible mechanisms to develop the Standard Reference to Names of Orchidaceae. It endorsed a procedure by which compilations made on a central database were to be sent to experts for consultation and final decisions on the valid names to be used for the taxa concerned.

Based on the recommendations of the Plants Committee and on those of Resolution Conf. 8.19, the Secretariat established a Memorandum of Understanding with the Royal Botanic Gardens, Kew (United Kingdom) for the preparation of this standard reference. The work started on the first of July 1993.

Recommendation 6. of the "Review of Significant Trade in Species of Plants Included in Appendix II of CITES" outlined the following genera as priorities:

Aerangis, Angraecum, Ascocentrum, Bletilla, Brassavola, Calanthe, Catasetum, Cattleya, Coelogyne, Comporetia, Cymbidium, Cypripedium, Dendrobium, Disa, Dracula, Encyclia, Epidendrum, Laelia, Lycaste, Masdevallia, Miltonia, Miltoniopsis, Odontoglossum, Oncidium, Paphiopedilum, Paraphalaenopsis, Phalaenopsis, Phragmipedium, Renanthera, Rhynchostylis, Rossioglossum, Sophronitis, Vanda and Vandopsis.

The Memorandum of Understanding stated that completed and verified checklists of the following groups should be prepared for the ninth meeting of the Conference of the Parties:

Cattleya, Cypripedium, Laelia, Paphiopedilum, Phalaenopsis, Phragmipedium, Pleione and Sophronitis.

Based on the agreed formula, a database was established at the Royal Botanic Gardens, Kew, on the ALICE Software system. ALICE is a central programme for biologists designing their own checklist or biodiversity system. To establish the database, core references were screened and the information included in the ALICE system. In addition data were imported from other database systems. On this basis preliminary checklists were produced and circulated to the international panel of orchid experts. Following the return of the validated data, the panel comments, decisions and amendments were incorporated in the database. A second version of the checklist was then generated and circulated to the experts for approval. Details of the type of information to be included in the database supporting the standard reference were discussed by the Plants Committee at its fourth meeting (Brussels, Belgium, September 1993). Currently the database contains information on more than 400 species and their accepted names (plus more than 900 synonyms), their authorities (contained in 1600 literature references) and their distribution. Available information on the conservation status is included as well. A sample of the database contents is attached as Annex 1.

However, not all this detailed information is needed for the average user of the standard reference. At its fifth meeting (San Miguel de Allende, Mexico, May 1994) the Plants Committee agreed that for CITES purposes the most important information is the reference to the valid name, the distribution of the species and its most common synonyms. A sample of a page from such a standard reference is attached as Annex 2.

The standard reference will also contain country-by-country checklists, presenting only the valid names in alphabetical sequence. A sample of such a checklist is attached as Annex 3.

The Standard References will be published by the Royal Botanic Gardens, Kew, following their approval at the ninth meeting of the Conference of the Parties. Copies of the texts of the standard references will, during the ninth meeting of the Conference of the Parties, be available for consultation from the Vice-Chairman of the Nomenclature Committee.

Working programme for 1995–1997

From the genera mentioned in Recommendation 6., mentioned above, standard references remain to be prepared for:

Aerangis, Angraecum, Ascocentrum, Bletilla, Brassavola, Calanthe, Catasetum, Coelogyne, Comporetia, Cymbidium, Dendrobium, Disa, Dracula, Encyclia, Epidendrum, Lycaste, Masdevallia, Miltonia, Miltoniopsis, Odontoglossum, Oncidium, Paraphalaenopsis, Renanthera, Rhynchostylis, Rossioglossum, Vanda and Vandopsis.

It is recommended that the highest priority be given to the preparation of the checklist for *Dendrobium*. This is a very large genus of more than 800 species, many of which are in trade. Within this genus, priority should be given to the sections for species that have a high profile in trade. The development of this checklist is also important for the proposed study of significant trade in plants of this genus (cf. document Doc. 9.34). Standard references will also be prepared for the following genera:

Aerangis, Angraecum, Ascocentrum, Bletilla, Disa, Dracula, Encyclia, Lemboglossum (a group of popular species, recently separated from the genus Odontoglossum), Lycaste, Masdevallia, Miltonia, Miltoniopsis, Renanthera, Rhynchosstylis and Rossioglossum.

It is proposed that the current Vice-Chairman of the Nomenclature Committee, should continue to co-ordinate

the production of standard references for these taxa, in accordance with the procedures outlined in Resolution Conf. 8.19, and in close co-operation with the Plants Committee.

It is also proposed that each completed standard reference be made available to the Parties immediately after its completion.

Doc. 9.32 Annex 1

Example of database contents

PAPHIOPEDILUM		
Accepted name:	<i>Paphiopedilum druryi</i>	Author: (Bedd.) Stein
Synonym:	<i>Cordula druryi</i> <i>Cypripedium druryi</i>	Author: (Bedd.) Rolfe Author: Bedd.
Geographical Distribution:	India	
CITES Status:	Appendix I	
IUCN Conservation Status:	Endangered	
IUCN Proposed New Categories:	Critical	
Accepted name:	<i>Paphiopedilum fairrieianum</i>	Author: (Lindl.) Stein
Synonym:	<i>Cordula fairrieana</i> <i>Cypripedium fairrieianum</i>	Author: (Lindl.) Rolfe Author: Lindl.
Geographical Distribution:	Bhutan	
	India (Arunchal, Pradesh, Sikkim)	
CITES Status:	Appendix I	
IUCN Conservation Status:	Endangered	
IUCN Proposed New Categories:	Endangered	

Doc. 9.32 Annex 2

Paphiopedilum Binomials in Current Usage

Ordered Alphabetically on all Names

<i>Cordula argus</i> = Paphiopedilum argus	PH
<i>Cordula barbata</i> = Paphiopedilum barbatum	TH, MY
<i>Cordula nigrita</i> = Paphiopedilum barbatum	TH, MY
<i>Cypripedium appletonianum</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN
<i>Cypripedium argus</i> = Paphiopedilum argus	PH
<i>Cypripedium barbatum</i> = Paphiopedilum barbatum	TH, MY
<i>Cypripedium barbatum</i> var. <i>biflorum</i> = Paphiopedilum barbatum	TH, MY
<i>Cypripedium biflorum</i> = Paphiopedilum barbatum	TH, MY
<i>Cypripedium bullenianum</i> var. <i>appletonianum</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN
<i>Cypripedium nigratum</i> = Paphiopedilum barbatum	TH, MY
<i>Cypripedium picherianum</i> = Paphiopedilum argus	PH
<i>Cypripedium poyntzianum</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN
<i>Cypripedium wolterianum</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN
Paphiopedilum acmodontum	PH
Paphiopedilum adductum	PH

Paphiopedilum appletonianum	CN, KH, LA, TH, VN
Paphiopedilum argus	PH
<i>Paphiopedilum argus</i> var. <i>sriwaniae</i> = Paphiopedilum argus	PH
Paphiopedilum armeniacum	CN
Paphiopedilum barbatum	TH, MY
<i>Paphiopedilum barbatum</i> var. <i>argus</i> = Paphiopedilum argus	PH
<i>Paphiopedilum barbatum</i> var. <i>nigritum</i> = Paphiopedilum barbatum	TH, MY
Paphiopedilum barbigerum	CN
<i>Paphiopedilum elliottianum</i> = Paphiopedilum adductum	PH
<i>Paphiopedilum hainanense</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN
<i>Paphiopedilum insigne</i> var. <i>barbigerum</i> = Paphiopedilum barbigerum	CN
<i>Paphiopedilum nigritum</i> = Paphiopedilum barbatum	TH, MY
<i>Paphiopedilum sriwaniae</i> = Paphiopedilum argus	PH
<i>Paphiopedilum wolterianum</i> = Paphiopedilum appletonianum	CN, KH, LA, TH, VN

Bold Type = Accepted Name

Italic Type = Synonym

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Example of regional checklist

Species are ordered alphabetically on accepted names only.

CAMBODIA

Paphiopedilum appletonianum
Paphiopedilum callosum
Paphiopedilum concolor

CHINA

Paphiopedilum appletonianum
Paphiopedilum armeniacum
Paphiopedilum barbigerum
Paphiopedilum bellatulum
Paphiopedilum concolor
Paphiopedilum dianthum
Paphiopedilum emersonii
Paphiopedilum henryanum
Paphiopedilum hirsutissimum
Paphiopedilum hirsutissimum var. *hirsutissimum*
Paphiopedilum malipoense
Paphiopedilum micranthum
Paphiopedilum parishii
Paphiopedilum purpuratum
Paphiopedilum tigrinum

HONG KONG

Paphiopedilum purpuratum

INDIA

Paphiopedilum druryi
Paphiopedilum fairrieianum
Paphiopedilum hirsutissimum
Paphiopedilum insigne
Paphiopedilum spicerianum
Paphiopedilum venustum
Paphiopedilum villosum