A. PROPOSAL

Deletion of Chrysalidocarpus lutescens from Appendix II.

B. PRO PONENT

The Kingdom of the Netherlands.

C. SUPPORTING STATEMENT

1. Taxonomy

11: Class:

Monocotyledoneae

12. Order:

Palmales (Arecales)

13. Family:

Palmae (Arecaceae)

14. Species:

Chrysalidocarpus lutescens H. Wendl.

15. Common Names:

English: butterfly palm, areca palm

French:

Spanish:

Trade names for the species may be: Areca lutescens or Areca baueri

16. Code Numbers:

Biological Data

Distribution: It is a well known and popular house and garden plant, in cultivation or escaped, with a widespread distribution. Until the early 1970's, the species was known only from cultivated material. It was rediscovered by the late Dr. H.E. Moore on Madagascar.

The wild population is endemic to the East coast of Madagascar and from there, it became widespread in all tropical regions. Madagascar endemism for flowering plants is ca. 86%. The wild population, at present, is very common on coastal dunes in the East between Ambila Lemaitso (Tamatave) and Fenerive (Est)(L.J. Dorr, in litt., 1986).

22. Population: Unknown, but large. It occurs in cultivation or escaped in numerous countries with tropical, sub-tropical and temperate climates, and is one of the most widely and commonly cultivated plants in the world. Millions of pots are cultivated in South Florida alone, and in the Netherlands, ca. 95% of the seeds for artificial propagation of butterfly palms as houseplants are imported from countries between latitude ca. 25°-30°N., Central America, Philippines, Florida, Hawaii, etc., where the butterfly palms are common in cultivation. The areca palm is a prolific seed producer which has adapted easily to the previously mentioned areas where it has been introduced as a landscape plant.

C. 1-2% of the seeds imported into the Netherlands (see 32.) come from Madagascar. The greater part of these seeds are collected from cultivated trees, in private gardens etc., in villages near the east coast and central mountain plateau. The remainder of the seeds imported into the Netherlands come from Puerto Rico, Brazil, Florida and Venezuela.

The wild population is large and collection of seeds would not in any way endanger the palm. In fact, the species seems to do especially well in disturbed or secondary forest (Dorr, in litt., 1986).

Habitat: The wild population on Madagascar is found in dune landscapes between the sea and the lagoons. It sometimes grows more inland, alongside flowing water, but never at an altitude above 1000 to 1333 metres. The species is common in disturbed areas or secondary forest. The East coast of Madagascar is densely populated and has an extensive infrastructure. This, however, does not seem to affect the species.

Cultivated palms are found in a wide range of habitats and show large ecological flexibility.

3. Trade Data

31. National Utilization: The palms are used for seed production, are popular garden and houseplants, and may be used as ornaments. The utilization of the butterfly palm on Madagascar is not known to proponent. The seeds are not edible, and no other use of the palm is known to proponent.

32. Legal International Trade:

International Trade in Seeds: An international trade practice which is common with the butterfly palm is to plant many seeds in a single pot. These seeds germinate readily and create an illusion of a spreading palm. Butterfly palm "tufts" will be used to describe this situation. In Europe the market prefers 15 seedlings per pot while in the United States the preferred number of seedlings is 35 per pot (D.R. Thompson, in litt., 1986).

One kilogram of seeds equals approximately 1,600 seeds. Very good germination is 80%, often it is much lower.

The Netherlands: Eleven major seed importers in the Netherlands imported c. 100,000 kg. of seeds in 1984 from the butterfly palm (89 - 109,000 kg.). With an estimated number of 1,600 seeds/kg., hence c. 160 million seeds entered the Netherlands in 1984. Their origin is mainly Brazil and the U.S.A. (Florida, Hawaii) (approximately 90%). Other countries of origin: Guatemala, Costa Rica, El Salvador, Cuba, Puerto Rico, Philippines and Taiwan. Only a very small percentage (c. 1 to 2%) comes from Madagascar.

These 160 million seeds potentially produce 112-148 million plants at c. 70-80% germination.

A large, but unknown, part of the seeds imported into the Netherlands are re-exported again to other European countries.

Artificially Propagated Plants in the Netherlands:

Butterfly palms ('tufts') supply by 4 major auctions in the Netherlands:

	1981	1982	1983	1984
Supply (x 1000 pieces)	266	490	1,781	2,011
Sales (x Hfl. 1000,)	1,483	3,110	8,614	8,587
Average price (Hfl.)	5.58	6.35	4.78	4.34

(Sources: Vereniging van Bloemenveilingen in Nederland) (Note: 1 US\$ = c. Hfl. 3)

Additional supply of butterfly palms occurs through agencies, small auctions 'contract-cultivation' and direct supply to merchants and exporters (no official data on numbers are available).

Federal Republic of Germany: In FRG, annually c. 200,000 'tufts' (=c. 2 million plants) are artificially propagated from seed imported from South-East Asia, the United States and South America. No import of seeds is known to occur from Madagascar. In FRG, annually about an equal number of tufts of house plants is imported from the Netherlands (Source: P. Menzel, Zentral-verband Gartenbau, e.V. Bonn).

Denmark (1984 data)

Imports of seeds in millions		<pre>Imports of plant-t (x 1000 pieces)</pre>	ufts Export of tufts (x 1000 pieces)
Number	Country	Number Countrie	s Number
1.7	Brazil Taiwan	330 Holland, Bel Honduras	gium, 1000

(Source: Else Mikkelsen, Government Plant Protection Service)

<u>United States</u>: Both in 1984 and in 1985, 15,000 kg. of seeds were imported from Madagascar and sent to the United States. A potential annual harvest of 50,000 - 60,000 kg. of butterfly palm seeds from Madagascar is said to be possible.

Seeds imported through the Miami plant inspection station during 1985:

Brazil:	400	kg.	(880)	lbs.)
Honduras	942	kg.	(2,072	1bs.)
Madagascar	6,960	kg.	(15,312	1bs.)
Panama	9,100	kg.	(20,020	1bs.)
Taiwan	897	kg.	(1,934	lbs.)
Venezuela	1,670	kg.	(3,674	lbs.)

(Source: Don R. Thompson, Animal Plant Health Inspection Service, Hyattsville, \mbox{MD})

Estimated production of seeds in 1985

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Brazil 13,636 kg. (30,000 lbs.)
Panama 24,091 kg. (53,000 lbs.)
Puerto Rico 13,636 kg. (30,000 lbs.)
Venezuela 10,455 kg. (23,000 lbs.)
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(Source: Don R. Thompson)

International Trade in Live Plants

CITES comparative tabulation for live specimens of Chrysalidocarpus lutescens 1980-1984:

Year C.	of import	C. of export	Reported imports	Reported	exports	3
1980 1981 1982	USA FRG	Colombia USA	l live (art. prop.)	1,835	live (ar	rt. prop.)
1983	Japan	Philippines	5 live			
	Japan	Thailand	134,700 flowers (?)			
1984	Austria	Netherlands		•	•	t. prop.)
	Belgium	Netherlands		•	•	t. prop.)
	Bahrain	Netherlands			•	t. prop.)
•	Canada	Netherlands				t. prop.)
	Switzerland	Netherlands		•	-	t. prop.)
	Cyprus	Netherlands		•	•	rt. prop.)
	FRG	Netherlands		•		t. prop.)
•	Denmark	Netherlands		•	•	t. prop.)
	Egypt	Netherlands			•	rt. prop.)
	Spain	Netherlands				rt. prop.)
	Finland	Netherlands		11,096	live (ar	t. prop.)
	France	Netherlands				rt. prop.)
	UK	Netherlands		26,346	live (ar	rt. prop.)
	UK	Thailand	200 live (art. prop	.)		
	Greece	Netherlands		12,860	live (a	rt. prop.)
	Hong Kong	Netherlands		208	live (ar	rt. prop.)
	Iceland	Netherlands		634	live (a	rt. prop.)
	Italy	Netherlands				rt. prop.)
	Jordan	Netherlands		108	live (a)	rt. prop.)
	Luxemburg	Netherlands		282	live (a	rt. prop.)
	Netherlands	USA	2,939 live (art. pr	op.)		
	Portugal	Netherlands		7,055	live (ar	rt. prop.)
	Sweden	Netherlands		30,059	live (a	rt. prop.)
	Unknown	Netherlands		124,070	live (a	rt. prop.)
	S. Africa	Netherlands		17	live (a	rt. prop.)

(Source: Wildlife Trade Monitoring Unit, 1986)

- 33. Illegal Trade: Unknown to proponent.
- Potential Trade Threats: The Netherlands, Denmark and other countries supply house and garden with plants, cultivated from seeds, originating mainly from countries between 25° to 30°N. latitude, where the palms are introduced and occur abundantly in gardens and plantations. The Madagascar population is healthy and collection of seeds does not affect this population.

As mentioned earlier, the areca palm is a prolific seed producer and has adapted easily to areas where it has been introduced. In the United States and other countries where it has been introduced, the plants are commonly used as landscape plants near houses. Seeds are collected from these cultivated plants.

4. Protection Status

- National: The Missouri Botanical Garden has embarked upon a collaborative effort with Malagasy botanical scientists to initiate a comprehensive botanical survey in an effort to document the unique Madagascar flora, with at least 8,500 endemic species and eight endemic families (A. Godlewski, Miss. Bot. Garden Bull 73(7), Nov.-Dec. 1985).
- 42. International: A proposal from Madagascar at the second meeting of the Parties to the Convention in San José resulted in the inclusion of the butterfly palm in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Secretariat, Notification to the Parties No. 30 of 20 June 1975, Morges). The argument was based on the supposed poor status of Chrysalidocarpus lutescens in the wild (Moore, in litt. to MacBryde, 1976) and especially because seeds were in great demand outside the country.

The fifth meeting in Buenos Aires amended the appendices in order that seed trade would not be subject to CITES regulations, hence, seeds are no longer regulated.

Quarantine regulations in a number of countries, such as the USA, prohibit entry of live Chrysalidocarpus plants, mainly because of palm diseases, such as lethal yellowing and cadang-cadang, which may, potentially, be harmful to domestic palm plantings.

- 43. Additional Protection Needs:
- 5. Information on Similar Species
- 6. Comments from Countries of Origin
- 7. Additional Remarks
- 8. References

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