

# 인도네시아 보고르 식물원, 발리 식물원 및 치보다스 식물원의 약용식물 조사 연구

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## Study on Medicinal Plants of Bogor Botanic Garden, Bali Botanic Garden and Cibodas Botanic Garden in Indonesia

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### Abstract

From the Bogor Botanic Garden, Bali Botanic Garden and Cibodas Botanic Garden in Indonesia, 293 medicinal plants were examined by photographing. From the Bogor Botanic Garden, 96 species in 50 families of plants were investigated. Among the medicinal plant region of this botanic garden, the most dominant family was Zingiberaceae with 12 species, followed by Acanthaceae with 7 species, Apocynaceae 5 species, Euphorbiaceae 5 species and Piperaceae 5 species. From Bali Botanic Garden, 185 species in 72 families of plants were studied. The most dominant families in the medicinal plant region of this botanic garden were Euphorbiaceae with 9 species and Zingiberaceae with 9 species, followed by Myrtaceae with 7 species and Malvaceae 5 species. From the Cibodas Botanic Garden, 12 species of medicinal plants were classified.

**Keywords:** Medicinal Plant, Bogor Botanic Garden, Bali Botanic Garden, Cibodas Botanic Garden, Indonesia

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## 서론

인도네시아의 정식명칭은 인도네시아공화국(Republic of Indonesia)이다. 자바, 수마트라, 보르네오, 셀레베스 등 크고 작은 섬들로 이루어진 세계 최대의 도서국가이며 수도는 자카르타(Jakarta)이다. 인도네시아 과학원(Indonesian Institute of Sciences, LIPI)은 4 개의 식물원을 보유하고 있다. 즉 보고르 식물원(Bogor Botanic Garden), 발리 식물원(Bali Botanic Garden), 치보다스 식물원(Cibodas Botanic Garden) 및 푸르오다디 식물원(Purwodadi Botanic Garden)이다.<sup>1)</sup> 이 중 보고르 식물원, 발리 식물원과 치보다스 식물원을 방문하여 약용식물을 조사했다. 보고르 식물원은 자카르타에서 남쪽 방향으로 60 km 떨어진 곳에 있다. 1817 년에 설립된 이 식물원은 87 헥타르 면적에 13,983 종의 식물이 자라고 있다.<sup>2,3)</sup> 1959 년에 설립된 발리 식물원은 발리 섬의 거의 중앙에 위치해 있으며 157.5 헥타르의 면적을 가지고 있다.<sup>4)</sup> 치보다스 식물원은 자카르타에서 남동쪽 100 km 에 위치해 있다. 1852 년 설립되었으며 면적은 84.99 헥타르이다.<sup>5,6)</sup> 3 곳 식물원에서 293 종의 약용식물을 촬영한 후 이들 학명을 알파벳순과 과명 순으로 정리하였다. 촬영한 식물 사진은 증거사진으로서 저자의 연구실에 보관 중이다.

## 본론

### 1) 조사방법

Table 1. Information on 3 botanical gardens in Indonesia

<b>Botanical Garden Name</b>	<b>Bogor Botanic Garden</b>
Location	Jl. Ir. H. Juanda 13, Bogor 16122, Indonesia
Created	1817
Area	87 ha
Tel	+62 (251) 8322187
E-mail	informasi.krbogor@mail.lipi.go.id
Website	http://krbogor.lipi.go.id
<b>Botanical Garden Name</b>	<b>Bali Botanic Garden</b>
Location	Jl. Kebun Raya, Candikuning, Baturiti, Kabupaten Tabanan, Bali 82191 Indonesia
Created	1959
Area	157.5 ha
Tel	+62 (368) 2033211
E-mail:	krbali@mail.lipi.go.id
Website	http://krbali.lipi.go.id
<b>Botanical Garden Name</b>	<b>Cibodas Botanic Garden</b>
Location	PO Box 19 Sindanglaya, Cipanas, Cianjur 43253 Indonesia
Created	1852
Area	84.99 ha
Tel	+62 (263) 520448
Website	https://krcibodas.lipi.go.id

저자가 방문 조사한 인도네시아의 보고르 식물원, 발리 식물원 및 치보다스 식물원의 정보는 Table 1 과 같다. 본 논문에 기재한 식물은 식물원의 팻말에 있는 학명을 기본으로 하여 the Plant List<sup>7)</sup>,



the International Plant Names Index<sup>8)</sup>, 국가생물종지식정보<sup>9)</sup>를 통해 이들 학명을 확인했다. 식물원 팻말에서 학명이 이명으로 표기된 것은 본문에 함께 제시하였다.

## 2) 결과 및 고찰

인도네시아의 3개 국립식물원에서 293종의 약용식물을 사진촬영하여 그 학명을 정리·분석했다. 즉 보고르 식물원, 발리 식물원 및 치보다스 식물원에서 각 96종, 185종, 12종의 약용식물이 확인되었다.

보고르 식물원은 약용식물 구역과 일반식물 구역으로 나눠 촬영했다. 약용식물 구역에서는 31과 68종이 확인되었다(Fig. 1). 과(科)별로 분석하면 생강과(Zingiberaceae) 식물이 12종으로 가장 많았으며, 쥐꼬리망초과(Acanthaceae) 7종, 험죽도과(Apocynaceae), 대극과(Euphorbiaceae), 후추과(Piperaceae) 식물이 각 5종 순으로 분포되어 있다. 이중 생강과(Zingiberaceae)의 12종 식물은 *Alpinia galanga*, *Alpinia hainanensis*, *Amomum cerasinum*, *Amomum compactum*, *Boesenbergia rotunda*, *Curcuma aeruginosa*, *Curcuma zanthorrhiza*, *Curcuma zedoaria*, *Etlingera brevilabrum*, *Zingiber officinale*, *Zingiber ottensii*, *Zingiber zerumbet*이다. 약용식물 구역을 속(屬)별로 정리하면, 후추속(*Piper*) 식물 5종, 강황속(*Curcuma*)과 생강속(*Zingiber*) 식물이 각 3종이다(Table 2). 보고르 식물원의 일반식물 구역에서는 19과 28종의 식물이 확인되었다. 그중 녹나무속(*Cinnamomum*) 식물이 3종 분포하고 있다(Table 3).



Fig. 1. Some medicinal plants of Bogor Botanic Garden in Indonesia

- ① *Hibiscus rosa-sinensis* L., ② *Ixora javanica* (Blume) DC., ③ *Malpighia coccigera* L.,  
 ④ *Pseuderanthemum carruthersii* (Seem.) Guillaumin, ⑤ *Rauvolfia serpentina* (L.) Benth. ex Kurz,  
 ⑥ *Rauvolfia tetraphylla* L.

Table 2. The plant list of the medicinal plant region of Bogor Botanic Garden in Indonesia

Family name	Scientific name	Synonym written on the name tag in the botanical garden
Acanthaceae	<i>Acanthus montanus</i> (Nees) T.Anderson	
	<i>Clinacanthus nutans</i> (Burm.f.) Lindau	
	<i>Graptophyllum pictum</i> (L.) Griff.	<i>Graptophyllum pictum</i> var. <i>luridosanguineum</i> (Sims) Bremek. & Backer
	<i>Hemigraphis alternata</i> (Burm.f.) T.Anderson	
	<i>Pachystachys coccinea</i> (Aubl.) Nees	
	<i>Pseuderanthemum carruthersii</i> (Seem.) Guillaumin	
	<i>Thunbergia affinis</i> S.Moore	
Amaranthaceae	<i>Aerva sanguinolenta</i> (L.) Blume	
Annonaceae	<i>Anaxagorea javanica</i> Blume	
Apocynaceae	<i>Allamanda cathartica</i> L.	
	<i>Alyxia reinwardtii</i> Blume	
	<i>Rauvolfia serpentina</i> (L.) Benth. ex Kurz	
	<i>Rauvolfia tetraphylla</i> L.	
	<i>Tabernaemontana divaricata</i> (L.) R.Br. ex Roem. & Schult.	
Araliaceae	<i>Polyscias fruticosa</i> (L.) Harms	
Asparagaceae	<i>Dracaena angustifolia</i> (Medik.) Roxb.	
Berberidaceae	<i>Mahonia fortunei</i> (Lindl.) Fedde	
Cannaceae	<i>Canna indica</i> L.	<i>Canna discolor</i> Lindl.
Clusiaceae	<i>Garcinia × mangostana</i> L.	<i>Garcinia atroviridis</i> Griff. ex T.Anderson
Costaceae	<i>Costus pictus</i> D.Don	<i>Costus mexicanus</i> Liebm.
Euphorbiaceae	<i>Acalypha wilkesiana</i> Müll.Arg.	<i>Acalypha compacta</i> Guilf. ex C.T.White
	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss.	
	<i>Elateriospermum tapos</i> Blume	
	<i>Jatropha multifida</i> L.	
	<i>Manihot esculenta</i> Crantz	
Iridaceae	<i>Sisyrinchium palmifolium</i> L.	<i>Eleutherine palmifolia</i> (L.) Merr.
Lamiaceae	<i>Ocimum americanum</i> L.	<i>Ocimum canum</i> Sims
	<i>Plectranthus scutellarioides</i> (L.) R.Br.	<i>Coleus atropurpureus</i> Benth.
	<i>Premna oblongata</i> Miq.	
Lauraceae	<i>Litsea glutinosa</i> (Lour.) C.B.Rob.	
Malpighiaceae	<i>Malpighia coccigera</i> L.	
Malvaceae	<i>Durio zibethinus</i> L.	
	<i>Hibiscus rosa-sinensis</i> L.	
	<i>Urena lobata</i> L.	



Menispermaceae	<i>Tinospora crispa</i> (L.) Hook. f. & Thomson	
Moraceae	<i>Ficus deltoidea</i> Jack	
	<i>Morus alba</i> L.	
Moringaceae	<i>Moringa pterygosperma</i> Gaertn.	
Oleaceae	<i>Ligustrum lucidum</i> W.T.Aiton	
Oxalidaceae	<i>Averrhoa bilimbi</i> L.	
Piperaceae	<i>Piper betle</i> L.	
	<i>Piper caninum</i> Blume	
	<i>Piper nigrum</i> L.	
	<i>Piper retrofractum</i> Vahl	
	<i>Piper sarmentosum</i> Roxb.	
Poaceae	<i>Cymbopogon winterianus</i> Jowitt ex Bor	
Polygonaceae	<i>Persicaria chinensis</i> (L.) H. Gross	
Rubiaceae	<i>Gardenia jasminoides</i> J.Ellis	<i>Gardenia augusta</i> Merr.
	<i>Ixora javanica</i> (Blume) DC.	
Rutaceae	<i>Murraya paniculata</i> (L.) Jack	<i>Murraya exotica</i> L.
	<i>Triphasia trifolia</i> (Burm.f.) P.Wilson	
Sapotaceae	<i>Manilkara fasciculata</i> (Warb.) H.J.Lam & Maas Geest.	
Solanaceae	<i>Solanum torvum</i> Sw.	
Verbenaceae	<i>Stachytarpheta cayennensis</i> (Rich.) Vahl	
Xanthorrhoeaceae	<i>Aloe vera</i> (L.) Burm.f.	
Zingiberaceae	<i>Alpinia galanga</i> (L.) Willd.	
	<i>Alpinia hainanensis</i> K.Schum.	<i>Alpinia katsumadae</i> Hayata
	<i>Amomum cerasinum</i> Ridl.	
	<i>Amomum compactum</i> Sol. ex Maton	
	<i>Boesenbergia rotunda</i> (L.) Mansf.	
	<i>Curcuma aeruginosa</i> Roxb.	
	<i>Curcuma zanthorrhiza</i> Roxb.	
	<i>Curcuma zedoaria</i> (Christm.) Roscoe	
	<i>Etingera brevilibrum</i> (Valeton) R.M.Sm.	
	<i>Zingiber officinale</i> Roscoe	<i>Zingiber aromaticum</i> Noronha
	<i>Zingiber ottensii</i> Valeton	
	<i>Zingiber zerumbet</i> (L.) Roscoe ex Sm.	

Table 3. The plant list of the general region in Bogor Botanic Garden in Indonesia

Family name	Scientific name	Synonym written on the name tag in the botanical garden
Altingiaceae	<i>Liquidambar formosana</i> Hance	
Apocynaceae	<i>Rauvolfia tetraphylla</i> L.	
Burseraceae	<i>Canarium indicum</i> L.	
Cibotiaceae	<i>Cibotium barometz</i> (L.) J.Sm.	
Combretaceae	<i>Combretum indicum</i> (L.) DeFilipps	<i>Quisqualis indica</i> L.
	<i>Terminalia chebula</i> Retz.	
Dipterocarpaceae	<i>Dryobalanops sumatrensis</i> (J.F.Gmel.) Kosterm.	<i>Dryobalanops aromatica</i> C.F.Gaertn.
	<i>Shorea leprosula</i> Miq.	
Ebenaceae	<i>Diospyros discolor</i> Willd.	<i>Diospyros blancoi</i> A.DC.
Erythroxylaceae	<i>Erythroxylum novogranatense</i> (D.Morris) Hieron.	
Lauraceae	<i>Cinnamomum camphora</i> (L.) J.Presl	
	<i>Cinnamomum cassia</i> (L.) J.Presl	
	<i>Cinnamomum iners</i> Reinw. ex Blume	
Leguminosae	<i>Mucuna bennettii</i> F.Muell.	
	<i>Pterocarpus indicus</i> Willd.	
Loganiaceae	<i>Strychnos colubrina</i> Blume	
	<i>Strychnos nigriflora</i> Baker	
Magnoliaceae	<i>Magnolia coco</i> (Lour.) DC.	
Malvaceae	<i>Cola acuminata</i> (P.Beauv.) Schott & Endl.	
	<i>Durio zibethinus</i> L.	
Moraceae	<i>Ficus albipila</i> (Miq.) King	
Piperaceae	<i>Piper nigrum</i> L.	
Santalaceae	<i>Santalum album</i> L.	
Solanaceae	<i>Solanum betaceum</i> Cav.	
Styracaceae	<i>Styrax benzoin</i> Dryand.	
Thymelaeaceae	<i>Aquilaria malaccensis</i> Lam.	
	<i>Gonystylus macrophyllus</i> (Miq.) Airy Shaw	
	<i>Gyrinops versteegii</i> (Gilg) Domke	

발리 식물원도 약용식물 구역과 일반식물 구역으로 구분하여 사진 촬영했다. 약용식물 구역에서 조사한 식물은 48 과 97 종이다(Fig. 2). 가장 많이 재배되어 있는 과(科)는 대극과(Euphorbiaceae)와 생강과(Zingiberaceae) 식물로서 9 종이다. 다음으로 도금양과(Myrtaceae) 7 종, 아욱과(Malvaceae) 식물이 5 종이다. 대극과(Euphorbiaceae)의 9 종 식물은 *Acalypha hispida*, *Acalypha wilkesiana*, *Aleurites triloba*, *Codiaeum variegatum*, *Euphorbia lactea*, *Euphorbia tirucalli*, *Jatropha curcas*, *Jatropha integerrima*, *Jatropha multifida*이다. 생강과(Zingiberaceae) 식물의 9 종은 *Alpinia galanga*, *Curcuma aeruginosa*, *Curcuma heyneana*, *Curcuma longa*, *Curcuma viridiflora*, *Curcuma zanthorrhiza*, *Kaempferia rotunda*, *Zingiber montanum*, *Zingiber officinale*이다. 이 식물원의 조사 식물을 속(屬)별로 분류하면 강황속(*Curcuma*)과 포도속(蒲桃属, *Syzygium*) 식물이 각 5 종, 무궁화속



(*Hibiscus*)과 자트로파속(*Jatropha*) 식물이 각 3 종이 분포하고 있다(Table 4). 발리 식물원의 일반식물 구역에서 24 과 88 종 식물을 촬영했다. 이곳에는 베고니아속(*Begonia*) 식물 21 종, 전죽속(滇竹屬, *Gigantochloa*)과 진달래속(*Rhododendron*) 식물 각 7 종, 포도속(蒲桃屬, *Syzygium*) 식물은 5 종이 자라고 있다(Table 5).

치보다스 식물원에서는 기린갈(*Daemonorops draco*), 산계초(*Litsea cubeba*), 인도자단(*Pterocarpus indicus*)을 포함한 12 종의 약용식물을 조사했다(Table 6). 이들 전체의 약용식물 사진은 저자의 연구실에 증거사진으로 보관 중이다.



Fig. 2. Some medicinal plants of Bali Botanic Garden in Indonesia

- ① *Melastoma malabathricum* L., ② *Phaleria macrocarpa* (Scheff.) Boerl., ③ *Plumbago zeylanica* L., ④ *Rivina humilis* L., ⑤ *Sambucus javanica* Blume, ⑥ *Wimmerella longitubus* (E.Wimm.) Serra, M.B.Crespo & Lammers

Table 4. The plant list of the medicinal plant region of Bali Botanic Garden in Indonesia

Family name	Scientific name	Synonym written on the name tag in the botanical garden
Acanthaceae	<i>Graptophyllum pictum</i> (L.) Griff.	
	<i>Justicia gendarussa</i> Burm.f.	<i>Gendarussa vulgaris</i> Nees
	<i>Sericocalyx crispus</i> (L.) Bremek.	
	<i>Strobilanthes crispa</i> Blume	
Adoxaceae	<i>Sambucus javanica</i> Blume	
Amaranthaceae	<i>Aerva sanguinolenta</i> (L.) Blume	
Annonaceae	<i>Annona squamosa</i> L.	
	<i>Cananga odorata</i> (Lam.) Hook.f. & Thomson	
Apiaceae	<i>Centella asiatica</i> (L.) Urb.	
Apocynaceae	<i>Alstonia scholaris</i> (L.) R. Br.	
	<i>Plumeria alba</i> L.	
Areaceae	<i>Areca catechu</i> L.	
Asparagaceae	<i>Cordyline fruticosa</i> (L.) A.Chev.	

	<i>Cordyline rubra</i> Otto & A.Dietr.	
Boraginaceae	<i>Ehretia microphylla</i> Lam.	<i>Carmona retusa</i> (Vahl) Masam.
Bromeliaceae	<i>Ananas comosus</i> (L.) Merr.	
Cactaceae	<i>Epiphyllum crenatum</i> (Lindl.) G.Don	
	<i>Nopalea cochenillifera</i> (L.) Salm-Dyck	
Campanulaceae	<i>Wimmerella longitubus</i> (E.Wimm.) Serra, M.B.Crespo & Lammers	
Compositae	<i>Cyanthillium cinereum</i> (L.) H.Rob.	<i>Vernonia cinerea</i> (L.) Less.
	<i>Elephantopus scaber</i> L.	
	<i>Pluchea indica</i> (L.) Less.	
Crassulaceae	<i>Bryophyllum pinnatum</i> (Lam.) Oken	<i>Kalanchoe pinnata</i> (Lam.) Pers.
Dicksoniaceae	<i>Dicksonia blumei</i> (Kunze) Moore	
Dioscoreaceae	<i>Dioscorea bulbifera</i> L.	
	<i>Dioscorea hispida</i> Dennst.	
Euphorbiaceae	<i>Acalypha hispida</i> Burm.f.	
	<i>Acalypha wilkesiana</i> Müll.Arg.	
	<i>Aleurites triloba</i> J.R. Forst. & G. Forst.	
	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss.	
	<i>Euphorbia lactea</i> Haw.	
	<i>Euphorbia tirucalli</i> L.	
	<i>Jatropha curcas</i> L.	
	<i>Jatropha integerrima</i> Jacq.	
Lamiaceae	<i>Jatropha multifida</i> L.	
	<i>Premna oblongata</i> Miq.	
	<i>Orthosiphon aristatus</i> (Blume) Miq.	
Lauraceae	<i>Salvia splendens</i> Sellow ex Schult.	
	<i>Cinnamomum burmanni</i> (Nees & T.Nees) Blume	
Lecythidaceae	<i>Cinnamomum sintoc</i> Blume	
	<i>Planchonia valida</i> (Blume) Blume	
Leguminosae	<i>Erythrina hypaphorus</i> Boerl. ex Koord.	
	<i>Euchresta horsfieldii</i> (Lesch.) Benn.	
	<i>Tamarindus indica</i> L.	
Lythraceae	<i>Punica granatum</i> L.	
Malvaceae	<i>Hibiscus mutabilis</i> L.	
	<i>Hibiscus pedunculatus</i> L. f.	
	<i>Hibiscus rosa-sinensis</i> L.	
	<i>Sida rhombifolia</i> L.	
	<i>Urena lobata</i> L.	
Marantaceae	<i>Maranta arundinacea</i> L.	
Melastomataceae	<i>Dissochaeta reticulata</i> Blume	
	<i>Melastoma malabathricum</i> L.	





Meliaceae	<i>Toona sureni</i> (Blume) Merr.	
Moraceae	<i>Morus alba</i> L.	
Musaceae	<i>Musa</i> × <i>paradisica</i> L.	
Myristicaceae	<i>Knema cinerea</i> Warb.	
Myrtaceae	<i>Callistemon coccineus</i> F.Muell.	
	<i>Psidium guajava</i> L.	
	<i>Syzygium aqueum</i> (Burm.f.) Alston	<i>Eugenia aquea</i> Burm.f.
	<i>Syzygium aromaticum</i> (L.) Merr. & L.M.Perry	
	<i>Syzygium polyanthum</i> (Wight) Walp.	
	<i>Syzygium polycephalum</i> (Miq.) Merr. & L.M.Perry	
Oleaceae	<i>Jasminum sambac</i> (L.) Aiton	
Oxalidaceae	<i>Averrhoa carambola</i> L.	
Phyllanthaceae	<i>Antidesma bunius</i> (L.) Spreng.	
	<i>Baccaurea racemosa</i> (Reinw. ex Blume) Müll.Arg.	
	<i>Phyllanthus acidus</i> (L.) Skeels	<i>Cicca acida</i> (L.) Merr.
Phytolaccaceae	<i>Rivina humilis</i> L.	
Piperaceae	<i>Piper betle</i> L.	
Plumbaginaceae	<i>Plumbago zeylanica</i> L.	
Poaceae	<i>Cymbopogon citratus</i> (DC.) Stapf	
	<i>Cymbopogon winterianus</i> Jowitt ex Bor	
	<i>Imperata cylindrica</i> (L.) Raeusch.	
Primulaceae	<i>Ardisia crenata</i> Sims	
Rubiaceae	<i>Psydrax dicoccos</i> Gaertn.	<i>Canthium dicocum</i> (Gaertn.) Merr.
Rutaceae	<i>Citrus maxima</i> (Burm.) Merr.	<i>Citrus grandis</i> (L.) Osbeck
	<i>Citrus medica</i> L.	
	<i>Melicope latifolia</i> (DC.) T.G. Hartley	<i>Euodia latifolia</i> DC.
	<i>Murraya paniculata</i> (L.) Jack	
Sapotaceae	<i>Mimusops elengi</i> L.	
Solanaceae	<i>Solanum torvum</i> Sw.	
Symplocaceae	<i>Symplocos odoratissima</i> Choisy ex Zoll.	
Talinaceae	<i>Talinum fruticosum</i> (L.) Juss.	<i>Talinum triangulare</i> (Jacq.) Willd.
Thymelaeaceae	<i>Phaleria macrocarpa</i> (Scheff.) Boerl.	
Verbenaceae	<i>Stachytarpheta mutabilis</i> (Jacq.) Vahl	
Xanthorrhoeaceae	<i>Aloe vera</i> (L.) Burm.f.	<i>Aloe barbadensis</i> Mill.
Zingiberaceae	<i>Alpinia galanga</i> (L.) Willd.	<i>Languas galanga</i> (L.) Stuntz
	<i>Curcuma aeruginosa</i> Roxb.	
	<i>Curcuma heyneana</i> Valetton & Zijp	
	<i>Curcuma longa</i> L.	<i>Curcuma domestica</i> Valetton
	<i>Curcuma viridiflora</i> Roxb.	

	<i>Curcuma zanthorrhiza</i> Roxb.	
	<i>Kaempferia rotunda</i> L.	
	<i>Zingiber montanum</i> (J.Koenig) Link ex A.Dietr.	<i>Zingiber purpureum</i> Roscoe
	<i>Zingiber officinale</i> Roscoe	

Table 5. The plant list of the general region of Bali Botanic Garden in Indonesia

Family name	Scientific name	Synonym written on the name tag in the botanical garden
Acanthaceae	<i>Hemigraphis bicolor</i> Boerl.	
Acoraceae	<i>Acorus calamus</i> L.	
Apocynaceae	<i>Alstonia scholaris</i> (L.) R. Br.	
Arecaceae	<i>Actinorhynchus calapparia</i> (Blume) H.Wendl. & Drude ex Scheff.	
	<i>Rhapis excelsa</i> (Thunb.) Henry	
Asparagaceae	<i>Asparagus setaceus</i> (Kunth) Jessop	<i>Asparagus plumosus</i> Baker
	<i>Cordyline fruticosa</i> (L.) A.Chev.	<i>Cordyline terminalis</i> (L.) Kunth
	<i>Cordyline rubra</i> Otto & A.Dietr.	
	<i>Dracaena angustifolia</i> (Medik.) Roxb.	<i>Pleomele angustifolia</i> (Medik.) N.E.Br.
Begoniaceae	<i>Begonia aconitifolia</i> A.DC.	
	<i>Begonia auriculata</i> Hook.f.	
	<i>Begonia baliensis</i> Girm.	
	<i>Begonia bowerae</i> Ziesenh.	
	<i>Begonia coriacea</i> Hassk.	
	<i>Begonia didyma</i> D.C.Thomas & Ardi	
	<i>Begonia dregei</i> Otto & Dietr.	
	<i>Begonia echinosepala</i> Regel	
	<i>Begonia heracleifolia</i> Cham. & Schtdl.	
	<i>Begonia listada</i> L.B.Sm. & Wassh.	
	<i>Begonia manicata</i> Brongn.	
	<i>Begonia multangula</i> Blume	
	<i>Begonia muricata</i> Blume	
	<i>Begonia obscura</i> Brade	
	<i>Begonia rex</i> Putz.	
	<i>Begonia scutifolia</i> Hook.f.	
	<i>Begonia silhetensis</i> (A.DC.) C.B.Clarke	
	<i>Begonia sizemoreae</i> Kiew	
	<i>Begonia sudjanae</i> C.-A.Jansson	
	<i>Begonia variegata</i> Y.M.Shui & W.H.Chen	<i>Begonia masoniana</i> var. <i>maculata</i> S.K.Chen, R.X.Zheng & D.Y.Xia
<i>Begonia venosa</i> Skan ex Hook.f.		



Boraginaceae	<i>Symphytum officinale</i> L.	
Burseraceae	<i>Canarium asperum</i> Benth.	
Cactaceae	<i>Cephalocereus palmeri</i> var. <i>sartorianus</i> (Rose) Krainz	
	<i>Cereus jamacaru</i> DC.	
	<i>Harrisia bonplandii</i> (Parm.) Britton & Rose	<i>Eriocereus bonplandii</i> (Parm. ex Pfeiff.) Riccob.
	<i>Mammillaria polythele</i> subsp. <i>durispina</i> (Boed.) D.R. Hunt	<i>Mammillaria durispina</i> Boed.
	<i>Myrtillocactus geometrizans</i> (Mart. ex Pfeiff.) Console	
	<i>Opuntia robusta</i> J.C. Wendl.	
	<i>Rhipsalis micrantha</i> (Kunth) DC.	<i>Rhipsalis wercklei</i> A. Berger
	<i>Rhipsalis neves-armondii</i> K.Schum.	
Cupressaceae	<i>Platycladus orientalis</i> (L.) Franco	<i>Thuja orientalis</i> L.
	<i>Thujopsis dolabrata</i> (L.f.) Siebold & Zucc.	
Cyperaceae	<i>Bolboschoenus maritimus</i> (L.) Palla	<i>Scirpus mucronatus</i> Pollich
Ericaceae	<i>Rhododendron dilatatum</i> Miq.	
	<i>Rhododendron inundatum</i> Sleumer	
	<i>Rhododendron javanicum</i> Benn.	
	<i>Rhododendron konori</i> Becc.	
	<i>Rhododendron macgregoriae</i> F.Muell.	
	<i>Rhododendron mucronatum</i> (Blume) G. Don	
	<i>Rhododendron rhodopus</i> Sleumer	
Euphorbiaceae	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss.	
Leguminosae	<i>Cassia javanica</i> L.	
Malvaceae	<i>Durio zibethinus</i> L.	
Meliaceae	<i>Aphanamixis polystachya</i> (Wall.) R.Parker	<i>Amoora grandifolia</i> Walp
	<i>Dysoxylum nutans</i> (Blume) Miq.	
Moraceae	<i>Artocarpus heterophyllus</i> Lam.	
	<i>Callistemon coccineus</i> F.Muell.	
	<i>Decaspermum fruticosum</i> J.R.Forst. & G.Forst.	
	<i>Leptospermum polygalifolium</i> Salisb.	<i>Leptospermum flavescens</i> Sm.
	<i>Psidium guajava</i> L.	
	<i>Syzygium antisepticum</i> (Blume) Merr. & L.M.Perry	
	<i>Syzygium cormiflorum</i> (F.Muell.) B.Hyland	
	<i>Syzygium malaccense</i> (L.) Merr. & L.M.Perry	
Myrtaceae	<i>Syzygium muelleri</i> (Miq.) Miq.	
	<i>Syzygium polyanthum</i> (Wight) Walp.	
	<i>Baccaurea racemosa</i> (Reinw. ex Blume) Müll.Arg.	
	<i>Phyllanthus buxifolius</i> (Blume) Müll.Arg.	

Plantaginaceae	<i>Plantago major</i> L.	
Poaceae	<i>Bambusa maculata</i> Widjaja	
	<i>Bambusa vulgaris</i> Schrad.	
	<i>Dendrocalamus asper</i> (Schult.) Backer	
	<i>Gigantochloa apus</i> (Schult.) Kurz	
	<i>Gigantochloa atter</i> (Hassk.) Kurz	
	<i>Gigantochloa hasskarliana</i> (Kurz) Backer	
	<i>Gigantochloa luteostriata</i> Widjaja	
	<i>Gigantochloa manggong</i> Widjaja	
	<i>Gigantochloa nigrociliata</i> (Buse) Kurz	
	<i>Gigantochloa pubinervis</i> Widjaja	
	<i>Neololeba atra</i> (Lindl.) Widjaja	
	<i>Schizostachyum brachycladum</i> (Kurz) Kurz	
	<i>Schizostachyum lima</i> (Blanco) Merr.	
Sapindaceae	<i>Dimocarpus longan</i> Lour.	<i>Euphoria longan</i> (Lour.) Steud.
	<i>Dodonaea viscosa</i> (L.) Jacq.	<i>Dodonaea angustifolia</i> L.f.
	<i>Guioa diplopetala</i> (Hassk.) Radlk.	
	<i>Guioa waigeoensis</i> Welzen	
	<i>Mischocarpus pentapetalus</i> (Roxb.) Radlk.	
Simaroubaceae	<i>Ailanthus integrifolia</i> Lam.	
Zingiberaceae	<i>Hedychium coronarium</i> J.Koenig	

Table 6. The plant list of Cibodas Botanic Garden in Indonesia

Family name	Scientific name
Altingiaceae	<i>Liquidambar formosana</i> Hance
Arecaceae	<i>Daemonorops draco</i> (Willd.) Blume
Combretaceae	<i>Terminalia australis</i> Cambess.
Lauraceae	<i>Litsea cubeba</i> (Lour.) Pers.
	<i>Litsea diversifolia</i> Blume
Leguminosae	<i>Caesalpinia spinosa</i> (Molina) Kuntze
	<i>Pterocarpus indicus</i> Willd.
Polypodiaceae	<i>Drynaria pleuridioides</i> Pr.
Rubiaceae	<i>Cinchona pubescens</i> Vahl
Schisandraceae	<i>Illicium anisatum</i> Gaertn
	<i>Illicium parviflorum</i> Michx. ex Vent.
Styracaceae	<i>Styrax formosanus</i> Matsum.



## 결론

보고르 식물원의 약용식물 구역에서 31 과 68 종의 식물을 조사했다. 이를 과(科)별로 정리하면 생강과 식물이 12 종으로 가장 많으며, 다음으로 쥐꼬리망초과 7 종, 협죽도과, 대극과, 후추과 식물이 각 5 종 순이었다. 이 식물원의 일반식물 구역에서 19 과 28 종의 식물을 조사했다. 발리 식물원의 약용식물 구역에서 48 과 97 종의 식물을 확인했다. 가장 많이 분포한 과(科)는 대극과와 생강과 식물로서 9 종이다. 다음으로 도금양과 7 종, 아욱과 식물이 5 종 자라고 있다. 발리 식물원의 일반식물 구역에서는 24 과 88 종의 식물이 확인되었다. 치보다스 식물원에서는 12 종의 약용식물을 조사했다.

## 감사의 글

자료 정리를 위해 수고해 준 박성민 前 연구보조원(순천대 한의약연구소)에게 감사드린다.

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