

UNIVERSITY
BOTANIC
GARDENS



УНИВЕРСИТЕТСКИ
БОТАНИЧЕСКИ
ГРАДИНИ

Cephalanthus occidentalis L.

INDEX SEMINUM

2016

HORTUS BOTANICUS UNIVERSITATIS SOPHIENSIS
NOMINE CLEMENTIS OCHRIDENSIS PRO MUTUA
COMMUTATIONE OFFERT ANNO 2015 COLLECTORUM

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Delipavlov D, Ed. in chief, (2011): Guide of plants in Bulgaria, Academically.publishing house of Agricultural University – Plovdiv.

Gramatikov D. (1992): Guide of trees and shrubs in Bulgaria, IntelSys, Plovdiv.

Jordanov D., Ed. in chief, (1963 – 2012): Flora Reipublicae Popularis Bulgaricae, Acad.Sci.Bulg.,Serdicae (In 11 Volumes).

Stojanov N., Stefanov B. et Kitanov B.,(1966): Flora Bulgarica, Nauka i iskustvo, Sophia.

All seeds are result of an open pollination.

Symbol asterisk * indicates seeds collected in natural habitats.

Symbol plus + indicates cuttings of plants.

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City	Year of foundation	Area	Location	Altitude	Average rainfall
SOFIA	1892	0.5 ha	42°36'N;23°25'E	549 m	650-700mm
VARNA	1977	36 ha	43°14'N;28°00'E	28-85m	450-550mm
BALCHIK	1955	1.9ha	43°24'N;28°01'E	1-35m	350-400mm

Part I SEEDS OF PLANTS IN THE OPEN FIELDS

PINOPSIDA

CEPHALOTAXACEAE

1. *Cephalotaxus drupacea* Siebold et Zucc.

CUPRESSACEAE

2. *Chamaecyparis lawsoniana* (A.Murray) Parl.
3. *Chamaecyparis pisifera* (Siebold et Zucc.) Endl. 'Filifera Aurea'
4. *Cupressus arizonica* Greene
5. *Cupressus sempervirens* L.
6. *Metasequoia glyptostroboides* Hu et W.C.Cheng
7. *Thuja plicata* Donn ex D.Don
8. *Thuja orientalis* L.
9. *Thujaopsis dolabrata* (L.) Siebold et Zucc.

PINACEAE

10. *Cedrus deodara* (Roxb. Ex D.Don) G.Don
11. *Larix deciduas* Mill.
12. *Picea abies* (L.) H.Karst.
13. *Picea pungens* Engelm
14. *Pinus halepensis* Mill.
15. *Pinus heldreichii* Christ
16. *Pinus maritima* Lam.
17. *Pinus nigra* J.F.Arnold
18. *Pinus strobus* L.
19. *Pinus sylvestris* L.

TAXACEAE

20. **Taxus baccata* L.
21. *Taxus brevifolia* Nutt.

TAXODIACEAE

22. *Cryptomeria japonica* Don.

MAGNOLIOPSIDA

ACATHACEAE

23. *Acanthus mollis* L.

ACERACEAE

24. **Acer campestre* L.

25. *Acer ginnala* Maxim.

26. *Acer pseudoplatanus* L.

27. * *Acer tataricum* L.

AMARANTHACEAE

28. *Amaranthus caudatus* L. 'Red'

29. *Amaranthus tricolor* L.

30. *Gomphrena globosa* L.

31. *Kali turgida* (Dumor.)Guterm

ANACARDIACEAE

32. **Cotinus coggygria* Scop.

33. *Rhus typhina* L.

APIACEAE

34. **Angelica sylvestris* L.

35. *Daucus carota* L.

36. **Heracleum sibiricum* L.

APOCYNACEAE

37. *Apocynum cannabinum* St.

38. **Cynanchum acutum* L.

AQUIFOLIACEAE

39. *Ilex aquifolium* L.

ARALIACEAE

40. **Hedera helix* L.

ASTERACEAE

41. *Achillea ageratum* L.
42. *Achillea clypeolata* Sm.
43. *Achillea millefolium* L. 'Cerise Queen'
44. *Aster novae – angliae* L.
45. **Agrimonia eupatoria* L.
46. **Arctium lappa* L.
47. *Artemisia santonicum* L.
48. *Ageratum houstonianum* Mill.
49. *Anthemis tinctoria* L.
50. *Coreopsis lanceolata* 'Golden queen'
51. *Centaurea arenaria* M.Bieb ex Willd. ssp. *borystenica*
52. *Centaurea nigrescens* Willd.
53. *Echinacea purpurea* (L.) Moenc
54. *Echinacea purpurea* 'Alba'
55. **Echinops ritro* L. subsp. *ruthenicus* (M.Bieb.) Nyman
56. **Eupatorium cannabinum* L.
57. *Felicia amelloides* (L.) Voss
58. *Gazania x hybrida*
59. *Gaillardia x grandiflora* hort. 'Red'
60. *Gaillardia x grandiflora* hort. 'Yellow'
61. *Helichrysum bracteatum* (Vent.) Tzvelev
62. *Helianthus tuberosus* L.
63. *Inula bifrons* L.
64. **Inula germanica* L.
65. *Inula helenium* L.
66. *Inula royleana* C.B. Clarke
67. *Jacobaea maritima* (L.) Pelsner et Meijden
68. **Onopordum acanthium* L.
69. *Rudbeckia amplexicaulis* Vahl.
70. *Santolina chamaecyparissus* L.
71. *Sanvitalia procumbens* Lam. 'Orange'
72. *Sanvitalia procumbens* Lam. 'Yellow'
73. *Solidago canadensis* L. f. *nana*
74. *Solidago gigantea* Aiton.
75. *Solidago virgaurea* L.
76. *Silphium perfoliatum* L.
77. **Taraxacum serotinum* (Waldst. et Kit.) Poir.
78. *Telekia speciosa* Baumg.

BEGONIACEAE

79. *Begonia semperflorens* L.

BETULACEAE

- 80. *Betula pendula* Roth. 'Youngii'
- 81. *Betula pendula* Roth.
- 82. *Carpinus orientalis* Mill.
- 83. *Corylus colurna* L.
- 84. *Ostrya carpinifolia* Scop.

BERBERIDACEAE

- 85. *Berberis julianae* C.K.Schneid.
- 86. *Berberis thunbergii* DC.
- 87. *Berberis vulgaris* L.
- 88. *Mahonia aquifolium* (Pursh) Nutt.
- 89. *Nandina domestica* Thunb.

BIGNONIACEAE

- 90. *Catalpa bignonioides* Walter

BORAGINACEAE

- 91. *Heliotropium arborescens* L.
- 92. *Lithospermum officinale* L.

BRASSICACEAE

- 93. *Aubrieta x hybrida* Hauskn.
- 94. *Iberis umbellatum* L.
- 95. *Matthiola incana* (L.) W.T.Aiton

CALYCANTACEAE

- 96. *Calycanthus floridus* L.

CANNABACEAE

- 97. *Humulus lupulus* L.

CANNACEAE

- 98. *Canna glauca* L.
- 99. *Canna indica* L.

CAPRIFOLIACEAE

100. *Leycesteria formosa* Wall.
101. *Lonicera etrusca* Santi
102. *Lonicera maackii* (Rupr.) Herder
103. *Lonicera nitida* E.H.Wilson
- 104.**Sambucus nigra* L.
105. *Symphoricarpos orbiculatus* Moench.
106. *Viburnum lantana* L.
107. *Viburnum opulus* L.
108. *Viburnum rhytidophyllum* Hemsl.
109. *Viburnum veitchii* C.H.Wright

CARYOPHYLLACEAE

110. *Dianthus arenarium* L.
111. *Dianthus barbatus* L.
112. *Lychnis flos-jovis* (L.) Desr.
113. *Lychnis chalcedonica* L.
114. *Saponaria officinalis* L.
115. *Silene pendula* L.
116. *Silene schafta* J.G.Gmel. ex Hohen.
- 117.**Silene thymifolia* Sm.

CELASTRACEAE

118. *Euonymus japonicus* Thunb.
119. *Euonymus europaeus* L.

CLEOMACEAE

120. *Cleome hassleriana* Chodat
121. *Cleome hassleriana* Chodat 'Sparkler rose'

CORNACEAE

- 122.**Cornus mas* L.

CUCURBITACEAE

123. *Cyclanthera pedata* (L.) Schrad.
124. *Cucumis africanus* L.
125. *Cucumis anguria* L.
126. *Diplocyclos palmatus* (L.) C.Jeffrey
- 127.**Ecballium elaterium* (L.) A.Rich.

DIPSACACEAE

- 128. *Cephalaria gigantea* (Ledeb.) Bobrov
- 129.**Cephalaria transsylvanica* (L.) Roem. et Schult.
- 130.**Dipsacus laciniatus* L.

EBENACEAE

- 131. *Diospyros lotus* L.

EUCOMIACEAE

- 132. *Eucommia ulmoides* Oliv.

EUPHORBIACEAE

- 133. *Euphorbia marginata* Pursh
- 134. *Ricinus communis* L.f.

ELEAGNACEAE

- 135. *Elaeagnus angustifolia* L.

FABACEAE

- 136. *Albizia julibrissin* Durazz.
- 137. *Caesalpinia gilliesii* (Hook.) D.Dietr.
- 138.**Caragana arborescens* Lam.
- 139. *Cassia stipulacea* Aiton.
- 140. *Cercis siliquastrum* L.
- 141.**Chamaecytisus hirsutus* Link
- 142.**Colutea arborescens* L.
- 143. *Gleditschia triacanthos* L.
- 144. *Glycyrrhiza echinata* L.
- 145. *Gymnocladus dioicus* (L.) K.Koch
- 146. *Laburnum anagyroides* Medik.
- 147. *Lespedeza daurica* (Laxm.) Schindl.
- 148. *Sophora vicifolia* Hance.
- 149. *Wisteria sinensis* (Sims.) Sweet

FAGACEAE

- 150. *Castanea sativa* Mill.
- 151. *Quercus ilex* L.

GENTIANACEAE

152. *Gentiana dahurica* Fisch.

GERANIACEAE

153. *Geranium sanguineum* L.

HIPPOCASTANACEAE

154. *Aesculus hippocastanum* L.

HYPERICACEAE

155. *Hypericum perforatum* L.

JUGLANDACEAE

156. *Juglans nigra* L.

157. *Pterocarya fraxinifolia* (Poir.) Spach

LAMIACEAE

158. *Agastache rugosa* (Fisch. et C.A.Mey.) Kuntze

159. *Betonica officinalis* L.

160. *Caryopteris incana* (Thunb. ex Houtt.) Miq.

161. *Hyssopus officinalis* L.

162. *Lavandula angustifolia* Mill.

163. *Lavandula stoechas* L.

164. *Melissa officinalis* L.

165. *Monarda didyma* L. 'Blaustrumpf'

166. *Monarda fistulosa* L.

167. *Ocimum basilicum* L.

168. *Ocimum basilicum* L. 'Purpurascens'

169. *Origanum vulgare* L.

170. *Phlomis samia* L.

171. *Salvia coccinea* Buc'hoz ex Etl.

172. *Salvia coccinea* Buc'hoz ex Etl. 'Corel Nymph'

173. *Salvia nemorosa* L.

174. *Salvia farinacea* Benth.

175. *Salvia forskahlei* L.

176.**Salvia pratensis* L.

177. *Salvia sclarea* L.

- 178. *Salvia splendens* Sellow ex Roem.&Schult.
- 179. *Salvia verticillata* L.
- 180. *Sideritis scardica* G
- 181. *Sideritis syriaca* L.
- 182. *Stachys byzantina* K. Koch.
- 183. *Stachys officinalis* (L.) Trevis.
- 184. *Teucrium chamaedrys* L.

LINACEAE

- 185. *Linum flavum* L.
- 186. *Linum perenne* L.

LYTHRACEAE

- 187. *Lagerstroemia indica* L.

MAGNOLIACEAE

- 188. *Liriodendron tulipifera* L.
- 189. *Magnolia grandiflora* L.

MALVACEAE

- 190. *Alcea rosea* L.
- 191. *Althaea armeniaca* Ten.
- 192.**Althaea cannabina* L.
- 193. . *Althaea officinalis* L.
- 194. *Althaea rosea* L.
- 195. *Hibiscus moscheutos* L. 'White'
- 196. *Hibiscus moscheutos* L. 'Red'
- 197. *Hibiscus syriacus* L.
- 198. *Lavatera trimestris* L.

MELIACEAE

- 199. *Melia azedarach* L.

MORACEAE

- 200. *Broussonetia papyrifera* (L.) L'Hèr. Ex Vent.
- 201. *Maclura pomifera* (Raf.) C.K.Schneid.

NYCTAGINACEAE

202. *Mirabilis jalapa* L.

OLEACEAE

203. *Fraxinus excelsior* L.

204.**Fraxinus ornus* L.

205. *Fraxinus pensylvanica* Marshall

206.**Jasminum fruticans* L.

207. *Ligustrum vulgare* L.

208. *Ligustrum ovalifolium* Hassk.

209. *Ligustrum ibota* Siebold.

210. *Syringa x prestoniae* McKewey

ONAGRACEAE

211. *Oenothera macrocarpa* Nutt. var. *missourensis*

PAEONIACEAE

212. *Paeonia arborea* Donn.

213. *Paeonia officinalis* Falk.

PAULOWNIACEAE

214. *Paulownia tomentosa* (Thunb.) Steud.

PAPAVERACEAE

215. *Glaucium flavum* Crantz

216. *Macleaya cordata* (Willd.) R.Br.

217. *Papaver orientale* L.

PHYTOLACCACEAE

218. *Phytolacca americana* L.

PITTOSPORACEAE

219. *Pittosporum tobira* (Thunb.) W.T.Aiton

PLANTAGINACEAE

220. *Veronica virginica* L

PLATANACEAE

221. *Platanus x acerifolia* (Aiton) Willd.

POLYGONACEA

222. *Rheum rhabarbarum* L.

223. *Rumex crispus* L.

PORTULACACEAE

224. *Portulaca grandiflora* Hook.

RANUNCULACEAE

225. *Anemone sylvestris* L.

226. *Aquilegia vulgaris* L.

227. *Clematis integrifolia* L.

228. *Clematis x jakmanii* Van Noutte

229. *Clematis recta* L.

230.**Clematis vitalba* L.

231.**Pulsatilla vulgaris* Mill.

RHAMNACEAE

232.**Paliurus spina-christi* Mill.

233.**Rhamnus cathartica* L.

234.**Rhamnus frangula* L.

235. *Ziziphus jujuba* Mill.

ROSACEAE

236. *Agrimonia procera* Wallr.

237. *Alchemilla mollis* (Buser) Rothm

238. *Cotoneaster astrophoros* J.Fryer et E.C.Nelson

239. *Cotoneaster lactaeus* L.

240. *Cotoneaster franchetii* Bois

241. *Cotoneaster horizontalis* Decne.

242. *Cotoneaster integerrimus* Medik.

243. *Cotoneaster melanocarpus* Lodd., G.Lodd. et W.Lodd.

- 244.**Crataegus monogyna* Jacq.
- 245. *Laurocerasus officinalis* M.J.Roem
- 246. *Potentilla nepalensis* L.
- 247. *Photinia glabra* (Thunb.) Maxim.
- 248.**Prunus padus* L.
- 249. *Prunus cerasifera* Ehrh.
- 250. *Pyracantha coccinea* M. Roem.
- 251. *Rhodotypos cerrioides* Siebold & Zucc.
- 252. *Sanguisorba officinalis* L.
- 253. *Sorbus aucuparia* L.
- 254.**Sorbus domestica* L.

RUBIACEAE

- 255. *Cephalanthus occidentalis* L.

RUTACEAE

- 256. *Poncirus trifoliata* (L.) Raf.
- 257. *Ptelea trifoliata* L.
- 258. *Ruta graveolens* L.
- 259. *Tetradium daniellii* (Benn.) T.G.Hartley
- 260. *Zanthoxylum armatum* DC.
- 261. *Zanthoxylum simulans* Hance.

SAPINDACEAE

- 262. *Koelreuteria paniculata* Laxm.
- 263. *Sapindus mukorossi* Gaertn.

SAXIFRAGACEAE

- 264. *Philadelphus coronarius* L.

SCROPHULARIACEA

- 265. *Digitalis ferruginea* ssp. *schischkinii* Werner
- 266. *Digitalis lanata* Ehrh.
- 267. *Digitalis lutea* L.
- 268. *Digitalis purpurea* L.
- 269.**Verbascum phlomoides* L.

SOLANACEAE

- 270. *Brugmansia suaveolens* Berght & J. Presl.
- 271. *Datura inoxia* Mill.
- 272. *Datura stramonium* L.
- 273. *Nicotiana alata* Link et Otto
- 274. *Pionandra betacea* (Cav.) Miers
- 275. *Physalis alkekengi* L.
- 276. *Solanum sisimbrifolium* Lam.

STERCULIACEAE

- 277. *Sterculia platanifolia* L.

SIMAROUBACEAE

- 278. *Ailanthus altissima* Swingle.

TILIACEAE

- 279.**Tilia platyphyllos* Scop.

ULMACEAE

- 280.**Celtis australis* L.
- 281. *Celtis caucasica* Willd.
- 282. *Ulmus minor* Mill.

VERBENACEAE

- 283. *Callicarpa bodineri* H.Lev.
- 284. *Callicarpa japonica* Thunb.
- 285. *Lantana* sp.
- 286. *Verbena venosa* Spreng.
- 287. *Vitex agnus-castus* L.

VITACEAE

- 288. *Ampelopsis aconitifolia* Bunge
- 289.**Parthenocissus quinquefolia* (L.) Planch.

LILIOPSIDA

AMARYLLIDACEAE

- 290. *Allium giganteum* L.
- 291. *Allium schoenoprasum* L.
- 292. *Zephyranthes grandiflora* Lindl.

ASPARAGACEAE

- 293. *Ruscus aculeatus* L.

ASPHODELACEAE

- 294. *Asphodeline liburnica* Rchb.

BUTOMACEAE

- 295. *Butomus umbellatus* L.

CYPERACEAE

- 296.**Scirpus holoschoenus* L.

LILIACEAE

- 297. *Asphodeline lutea* Rchb
- 298. *Fritilaria imperialis* L.
- 299. *Kniphofia tuckii* Baker
- 300. *Lilium henryi* Baker
- 301. *Lilium regale* E.H.Wilson

IRIDACEAE

- 302. *Iris germanica* L.
- 303. *Sisyrinchium striatum* SM

POACEAE

- 304. *Agropyron elongatum* (R.Br) Spreng.
- 305. *Andropogon scoparius* Michx. 'Blazze'
- 306. *Bouteloua curtipendula* (Michx.) Torr.
- 307. *Chasmanthium latifolium* (Michx.) Yates
- 308. *Coix lacryma-jobi* L.
- 309. *Cortaderia selloana* (Schult. et Schult.f.) Asch. et Graebn
- 310. *Cymbopogon flexuosus* (Nees ex Steud.) W. Watson

- 311. *Deschampsia caespitosa* (L.) P.Beauv.
- 312. *Deschampsia flexuosa* (L.) Trin.
- 313. *Elymus arenaria* L.
- 314. *Eragrostis spectabilis* (Pursh) Steud.
- 315. *Koeleria glauca* (Schrad.)D.C.
- 316.**Leymus racemosus* (Lam.) Tzvelev ssp. *sabulosus* (M.Bieb.)Tzvelev
- 317. *Miscanthus sinensis* (Thunb.)Anders.
- 318. *Muhlenbergia capillaris* (Lam.) Trin
- 319. *Panicum amarum* Elliott.
- 320. *Pennisetum alopecuroides* (L.)Spreng.
- 321. *Pennisetum glaucum* (L.) R.Br. '*Purple Majesty*'
- 322. *Pennisetum orientale* Rich.
- 323. *Saccharum ravenae* L.
- 324. *Sorghastrum nutans* (L.) Nash.
- 325. *Sorghum halepense* Pers.
- 326. *Sorghum saccharatum* (L.) Moench.
- 327. *Sporolobus airoides* Torr.
- 328. *Stipa capillata* L.

Part II SEEDS OF PLANTS CULTIVATED IN GREENHOUSES

ARECACEAE

- 329. *Chamaerops humilis* L.
- 330. *Livistona chinensis* R.Brown ex Martins

ARISTOLOCHIACEAE

- 331. *Aristolochia elegans* Mast

FABACEAE

- 332. *Leucaena leucocephala* (Lam.) de Wit

PASSIFLORACEAE

- 333. *Passiflora morifolia* Mast.

Part III CACTI CULTIVATED INDOORS

CACTACEAE

334. *Astrophytum capricorne* (A.Dietr.) Britton et Rose var. minor Rge. et Quehl.
335. *Aylostera flavystila* Ritter
336. *Brasilicactus haselbergii* (F.Haage) Backeb. ex Schaff.
337. *Cleistocactus buchetii* Backbg.
338. *Cleistocactus flavispinus* (K. Sch.non SD) Backbg
339. *Cleistocactus parviflorus* (K.Sch.)Goss.
340. *Cleistocactus santacruzensis* Backeb.
341. *Cleistocactus smaragdiflorus* (F.A.C.Weber) Britton et Rose
342. +*Corynopuntia bulbispina* (Eng) Knuth.
343. +*Cylindropuntia leptocaulis* (DC.) F.M.Knuth.
344. +*Cylindropuntia leptocaulis* (DC.) F.M.Knuth var. *vaginata* Knuth.
345. *Disocactus biformis* (Lindl.) Lindl.
346. *Disocactus 'Red Coral'*
347. *Dolichothele baumii* Werd.et Buxb.
348. *Epiphyllum phyllanthus* (L.) Haw.
349. *Epithelantha bookei* L.D.Benson
350. *Epithelantha densispina* H.Bravo
351. *Epithelantha micromeris* (Engelm.)F.A.C.Weber ex Britton et Rose
352. *Epithelantha micromeris* (Engelm.)F.A.C.Weber ex Britton Rose var. *greggii* (Eng.)Berg.
353. +*Hatiora salicicornioides* (Haw.)Br. et R.
354. +*Lepismium puniceo-dulcis* (Lindl)Backbg.
355. *Lophophora fricii* Habermann.
356. *Lophophora williamsii* (Lem.ex SD) Coult
357. *Lophophora williamsii* (Lem.ex SD) Coult var. *pentagona* Croiz
358. *Mammillaria bocasana* Pos. var. *multilanata* Hort.
359. *Mammillaria calacantha* Tiegel
360. *Mammillaria celsiana* Lem.
361. *Mammillaria centricirrha* Lem.var. *curvispina*
362. *Mammillaria columbiana* Salm-Dyck var. *bogotensis* (Werd)Dugand
363. *Mammillaria conspicua* J.A.Purp
364. *Mammillaria crebrispina* DC
365. *Mammillaria crocidata* Lem.
366. *Mammillaria crucigera* Mart.
367. *Mammillaria elongata* DC var. *rufocrosea* (SD) K.Sch
368. *Mammillaria gladiata* Mart.
369. *Mammillaria glauca* A.Diter. Ex Link.
370. *Mammillaria grusonii* Runge

371. *Mammillaria hidalgensis* Purpus
372. *Mammillaria inaiiae* Graig
373. *Mammillaria ingens* Backeb.
374. *Mammillaria kewensis* SD
375. *Mammillaria knuthii* Echrenbg
376. *Mammillaria mammillaris* (L.) H.Karst.
377. *Mammillaria matudae* Bravo
378. *Mammillaria multiceps* Salm-Dyck
379. *Mammillaria neocoronaria* F.M.Knuth
380. *Mammillaria nivosa* Lk.
381. *Mammillaria obconella* Schneidw. var. *galeottii* Backbg.
382. *Mammillaria oliviae* Orcutt
383. *Mammillaria orcutii* Bod.
384. *Mammillaria pennispinosa* Krainz.
385. *Mammillaria prolifera* (Mill.) Haw. var. *haitensis* Hort.
386. *Mammillaria pseudoperbella* Quehl
387. *Mammillaria rhodantha* Link et Otto
388. *Mammillaria ruestii* Quehl
389. *Mammillaria schiedeana* Ehrenb. ex Schltdl.
390. *Mammillaria simplex* Torr. et A.Gray
391. *Mammillaria* sp. 'Toluca'
392. *Mammillaria spinosissima* Lem. 'Rubrispina'
393. *Melocactus canescens* F.Ritter
394. *Nopalea dejecta* (Salm-Dyck) Salm-Dyck
395. *Notocactus caespitosus* (Speg.) Backbg
396. *Notocactus submammulosus* (Lem.) Backbg
397. *Opuntia alta* Griffiths
398. *Opuntia bergeriana* Web.
399. *Opuntia dillenii* (Ker Gawl.) Haw.
400. *Opuntia hyptiacantha* Web.
401. *Opuntia linguiformis* Griffiths
402. *Opuntia macdougaliana* Rose
403. +*Opuntia microdasys* (Lehm.) Pfeiff.
404. +*Opuntia microdasys* (Lehm.) Pfeiff. var. *albispina* Fobe et Backbg
405. +*Opuntia microdasys* (Lehm.) Pfeiff. var. *rufida* K.Sch
406. *Opuntia procumbens* Engelm. et J.M.Bigelow
407. *Opuntia streptacantha* Lem.
408. *Opuntia stricta* Haw.
409. *Opuntia tomentosa* SD.
410. *Oreocereus hendriksenianus* Backeb.
411. *Parodia saint-pieana* Backeb.
412. +*Pereskia aculeata* Mill.
413. +*Pereskia aculeata* Mill. var. *godseffiana* (Sand)Knuth

414. *Rebutia minuscula* K.Sch. f.*violaciflora* (Backbg.)Buin et. Don
 415. +*Rhipsalis angustissima* F.A.C.Weber
 416. +*Rhipsalis aureziana*
 417. +*Rhipsalis cereuscula* Haw.
 418. +*Rhipsalis coralloides* Rauh
 419. *Rhipsalis dissimilis* K.Sch f.*marnierianum* Barthlott et N.P.Taylor
 420. +*Rhipsalis ewaldiana* Barthlott et N.P.Taylor
 421. +*Rhipsalis grandiflora* (Haw) Buxb
 422. +*Rhipsalis heptagona* Rauh et Backeb
 423. +*Rhipsalis heteroclada* Br.& R.
 424. +*Rhipsalis houletiana* Lem.
 425. +*Rhipsalis lumbricoides* (Lem.) Lem.
 426. +*Rhipsalis mesembryanthemoides* Haw.
 427. +*Rhipsalis penduliflora* N.E.Br.
 428. +*Rhipsalis pitttieri* (Br.& R.)H. Friedr.
 429. +*Rhipsalis prismatica* (Lem.) Rumlper
 430. +*Rhipsalis purpusii* Weing.
 431. +*Rhipsalis teres* (Vell.) Stend.
 432. +*Rhipsalis werklei* A.Berger
 433. *Rhodocactus grandifolius* (Haw) Knuth
 434. *Submatucana paucicostata* (F.Ritter) Backeb.
 435. +*Tephrocactus minor* Backbg.
 436. + *Tunilla soehrensii* D.R.Hunt. & Illif

Part IV **SUCCULENTS CULTIVATED INDOORS**

AGAVACEAE

437. *Dasyilirion wheeleri* S.Wats.
 438. *Nolina longifolia* (Karw.ex Schult.) Hemsl.
 439. *Yucca filamentosa* L.
 440. *Yucca glauca* Nutt.

AIZOACEAE

441. +*Delosperma echinatum* Schwantes
 442. +*Delosperma kurense* (Engl.) Herre
 443. +*Drosanthemum eburneum* L.Bol.
 444. +*Lampranthus coralliflorus* (Salm.)Schwant.
 445. +*Ruschia rupicola* (Engl.) Schwantes
 446. +*Trichodiadema mirabile* Schwantes

AMARYLLIDACEAE

447. *Haemanthus albiflos* Jacq.

ASCLEPIADACEAE

- 448. +*Ceropegia debilis* N.E.Br.
- 448. +*Ceropegia linearis* E.Mey. var. *hastata*
- 449. +*Ceropegia stapeliformis* Haw. ssp. *bramdeska*
- 450. +*Ceropegia woodii* Schltr.
- 451. +*Echidnopsis cereiformis* Hook.f.
- 452. +*Echidnopsis cereiformis* Hook.f. var. *brunnea* Bgr.
- 453. +*Huernia hystrix* N.E.Br.
- 454. +*Huernia macrocarpa* Schweinfurth ex K.Schum.
- 455. +*Huernia macrocarpa* var. *penzigii* (N.E.Br.) A.C.White et Sloane
- 456. +*Huernia pendula* E.A.Bruce
- 457. +*Huernia pendurata* Budai
- 458. +*Piaranthus foetidus* N.E.Br.
- 459. +*Piaranthus pulcher* N.E.Br.
- 460. +*Stapelia x comparabilis* A.C.White et B.Sloane
- 461. +*Stapelia variegata* L.
- 462. +*Stapelia variegata* L. var. *monstrosus*
- 463. +*Stapelianthus decaryi* Choux

ASPHODELOIDEAE

- 464. *Aloe hemmingii* Reyn.et Bally
- 465. *Aloe somaliensis* Watson
- 466. *Aloe striata* Haw.
- 467. +*Haworthia angustifolia* Haw. var. *liliputana* Uitew.
- 468. +*Haworthia cymbiformis* (Haw.)Duv.
- 469. +*Haworthia herbacea* (Mill.) Stearn
- 470. +*Haworthia mucronata* Haw. var. *mucronata*
- 471. +*Haworthia planifolia* Haw.
- 472. +*Haworthia planifolia* Haw. f. *variegata*
- 473. +*Haworthia triebneriana* v.Poelln

ASTERACEAE

- 474. +*Othonna capensis* L.H.Bailey
- 475. +*Senecio articulatus* (L.f.) Sch.Bip.
- 476. +*Senecio articulatus* (L.f.) Sch.Bip.cv. *variagata*
- 477. *Senecio barbertonicus* Klatt
- 478. +*Senecio herreianus* Dinter
- 479. *Senecio longifolius* (DC.) Sch.Bip

- 480. *Senecio medley-woodi* Hutch.
- 481. +*Senecio radicans* (L.f.) Sch.Bip.
- 482. +*Senecio rowleyanus* H.Jacobsen
- 483. *Senecio sempervivus* (Forsk.) Sch.Bip
- 484. *Senecio stapeliiformis* Phillips var. *gregori* S. Moore

BROMELIACEAE

- 485. *Acanthostachys strobilacea* Link, Klotrsech et Otto
- 486. *Aechmea bracteata* Griseb.
- 487. *Duckia niederleinii* Mez.
- 488. *Puya mirabilis* (Mez) L.B.Sm.

BURSERACEAE

- 489. *Bursera fagaroides* (Kunth)Engl.

COMMELINACEAE

- 490. +*Cyanotis somalensis* C.B.Clarke
- 491. *Rhoeo discolor* Hance
- 492. +*Tradescantia navicularis* Ortg

CRASSULACEAE

- 493. +*Aeonium decorum* Webb.
- 494. +*Aeonium simsii* (Sweet)Stearn
- 495. +*Bryophyllum diagremontianum* Berger.
- 496. +*Bryophyllum scandens* (Perr.)Berger.
- 497. +*Bryophyllum tubiflorum* Harv.
- 498. +*Crassula ausensis* P.C.Hutsch.
- 499. +*Crassula brevifolia* Harv.
- 500. + *Crassula browniana* Brutt. Davy
- 501. + *Crassula corallina* Thunb.
- 502. +*Crassula corymbulosa* Link. et Otto
- 503. +*Crassula dejecta* Jacq.
- 504. +*Crassula ernestii* Schonland et Baker f.
- 505. +*Crassula exilis* Harv.
- 506. +*Crassula lactea* Aiton
- 507. +*Crassula languinosa* Harv. var. *pachystemon* (Schoenl.et Bak.F.)Toelken
- 508. +*Crassula lycopodioides* Lam.
- 509. +*Crassula lycopodioides* Lam. var. *purpusii* Jacobs.
- 510. +*Crassula lycopodioides* Lam. var. *viridis* Bgr.

511. +*Crassula marginalis* Soland.
512. +*Crassula marginalis* Soland. cv. 'Variegata'
513. +*Crassula marnieriana* Huber & Jacobsen
514. +*Crassula multicava* Lem.
515. +*Crassula muscosa* L.
516. + *Crassula nealiana* v. Higgins
517. +*Crassula orbicularis* L.
518. +*Crassula pellucida* L.
519. +*Crassula pellucida* L. ssp. *marginalis* „Rubra” (Dryand in Ait) Toelken
520. +*Crassula perforata* Thunb.
521. +*Crassula perforata* Thunb. cv. 'Variegata'
522. +*Crassula portulacea* Lam.
523. +*Crassula portulacea* Lam. cv. 'Variegata'
524. +*Crassula pruinosa* MG 2343 L.
525. +*Crassula rattrayi* Diels ex Schonland et Baker f.
526. +*Crassula rogersii* Schonland
527. +*Crassula rosularis* Haw.
528. +*Crassula rupestris* L.f.
529. +*Crassula rupestris* L.f. ssp. *marnierana* (Huber. Et. Ja-cobs) Toelken
530. +*Crassula sarcocaulis* Eckl. et Zeyh.
531. +*Crassula spathulata* Thunb.
532. +*Crassula tetragona* L.
533. +*Crassula* „Hottentot”
534. +*Graptopetalum macdougallii* Alexander
535. +*Kalanchoe* „Exotic”
536. +*Kalanchoe glaucescens* Britten
537. +*Kalanchoe laxiflora* Bak. var. *violacea* Mann. et Boin.
538. +*Kalanchoe longiflora* Schltr. var. *coccinea* Marn-Lap.
539. +*Kalanchoe manginii* Hammett Perr.
540. +*Kalanchoe pritwitzii* Engl.
541. +*Kalanchoe rhombopilosa* Mann. et Boit.
542. +*Kalanchoe serrata* Mannoni et Boiteau
543. +*Kalanchoe somalensis* Hook.f.
544. +*Lenophyllum pusillum* Rose
545. +*Pachyphytum brevifolium* Rose
546. +*Pachyphytum compactum* Rose
547. +*Pachyphytum werdermannii* Poelln.
548. +*Sedum alantoides* Rose
549. +*Sedum burrito* Moran
550. +*Sedum clavifolium* Rose
551. +*Sedum dasyphyllum* L.
552. +*Sedum hakonense* Makino 'Chocolate Ball'
553. +*Sedum kimnachii* Byalt.

- 554. +*Sedum lucidum* R.T.Clausen
- 555. +*Sedum moranense* Kunth ssp. *grandiflorum* R.T.Clausen
- 556. +*Sedum nussbaumerianum* Bitter
- 557. +*Sedum oaxacantum* Rose
- 558. +*Sedum praealtum* A.DC.
- 559. +*Sedum rubrotinctum* R.T.Clausen
- 560. +*Sedum rubrotinctum* R.T.Clausen cv. "Aurora"
- 561. +*Sedum stahlii* Solms
- 562. +*Sedum treleasei* Rose
- 563. + *Sedum urvillei* D.C.
- 564. +*Villadia imbricata* Rose

EUPHORBIACEAE

- 565. *Euphorbia grandidens* Haw.
- 567. +*Euphorbia pteroneura* A.Berger
- 568. +*Euphorbia tirucalli* L.
- 569. +*Synadenium grantii* Hook.f.

GERANIACEAE

- 570. *Pelargonium barklyi* Scott-Elliot
- 571. *Pelargonium exstipulatum* L'Her.

LAMIACEAE

- 572. +*Plectranthus prostratus* Gurke

PIPERACEAE

- 573. +*Peperomia columella* Rauh et Hutchison
- 574. +*Peperomia 'Amigo Green Split'*
- 575. +*Peperomia 'Marcello'*

PORTULACACEAE

- 576. +*Portulacaria afra* Jacq.
- 577. +*Portulacaria afra* Jacq. cv. '*Variegata*'

ZINGIBERACEAE

- 578. *Zingiber spectabile* Griff.

Part V WINTERHARDY CACTI AND SUCCULENTS CULTIVATED OUTDOORS

CACTACEAE

- 579. *Opuntia aureispina* (S.Brack et K.D.Heil) Pinkava et B.D.Parfit
- 580. *Opuntia compressa* (Salisb.) J.F.MacBr.
- 581. *Opuntia cymochila* Eng.
- 582. *Opuntia engelmannii* Salm-Dyck
- 583. *Opuntia erinacea* Engelm. et J.M.Bigelow var. *utahensis* (Eng.)Benson
- 584. *Opuntia lindheimeri* Engelm.
- 585. *Opuntia macrorhiza* Engelm.
- 586. *Opuntia macrorhiza* Engelm. 'Prescott Arizona'
- 587. *Opuntia phaeacantha* Engelm. var. *camanchica* "Albispina" (Eng.)Borg.
- 588. *Opuntia phaeacantha* Engelm. var. *longispina*
- 589. *Opuntia phaeacantha* Engelm. var. *minor*
- 590. *Opuntia phaeacantha* Engelm. var. *rubra* Hort.
- 591. *Opuntia tortispina* Engelm. et J.M.Bigelow
- 592. *Opuntia violacea* Engelm.
- 593. *Opuntia winteriana* A.Berger

CRASSULACEAE

- 594. *Sedum spectabile* Boreau

Plant Material Supply Agreement

As part of the commitment by this botanic garden to implementing the provisions of the Convention on Biological Diversity, the plant material listed below is supplied on condition that:

- a) it is used for the common good, for research, education, conservation and display;
- b) genetic material or resources or products derived from it are not passed to, or transferred in any way, to a third party without prior written permission from the above named botanic garden, and then only subject to a legally binding material supply agreement consistent with the agreement contained herein;
- c) publications resulting from research undertaken on the material supplied, or related to the study of that material, will acknowledge the source of this material;
- d) copies of any such publications will be lodged with the above named botanic garden within one year of the appearance of those publication;
- e) if the recipient of the material seeks to commercialize that material, or its progeny, or any derivatives thereof, that prior informed consent must first be obtained from the above named botanic garden. It is expected that any such commercialisation will be subject to a separate agreement.

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DESIDERATA
